THE PROPAGANDA FOR REFORM IN PROPRIETARY MEDICINES

THE PROPAGANDA FOR REFORM IN PROPRIETARY MEDICINES

QV 772 A518p 1908

American Medical
Association. Council on

The propaganda for reform in
proprietary medicines

TEXAS COLLEGE OF OSTEOPATHIC MEDICINE
LIBRARY
CAMP BOWIE AT MONTGOMERY
FORT WORTH, TEXAS 76107

THE PROPAGANDA FOR REFORM

— IN —

Proprietary Medicines

PART I. . . . . COUNCIL REPORTS

PART II. CONTRIBUTIONS FROM THE CHEMICAL LABORATORY

PART III. . . . . MISCELLANEOUS NOSTRUMS

PART IV. . . . . MISCELLANY

PART V. . . . . ADVERTISING

FIFTH EDITION

REVISED TO SEPTEMBER 12, 1908.

PREFACE

In February, 1905, the Council on Pharmacy and Chemistry of the American Medical Association was organized to investigate the proprietary medicine question and to pass on those which should be up to the standard required of ethical proprietary medicines. From time to time reports of this Council have appeared in the columns of THE JOURNAL of the American Medical Association, and THE JOURNAL has also contained other matter relating to the question of nostrums and proprietary medicines not directly connected with the work of the Council. Requests have been received repeatedly for this or that number of THE JOURNAL containing an article on the subject, and as it has been impossible to furnish many of the copies asked for, it has been thought best to collect some of the matter and issue it in this reprint form. The matter is reprinted from THE JOURNAL, and following each article is given the date on which it appeared.

5-9017 10.00 12-11-84

THE PROPAGANDA FOR REFORM IN PROPRIETARY MEDICINES.

PART I.
COUNCIL REPORTS.

ACETANILID MIXTURES.

Official Report of Council on Pharmacy and Chemistry.

(*From The Journal A. M. A., June 3, 1905.*)

The following report has been approved by the council:

To the Council on Pharmacy and Chemistry of the American Medical Association:

In response to the request of your chairman we have investigated the below-mentioned preparations and report as follows:

Specimens of the articles were bought in different cities in the open market, and in original, sealed packages, and were analyzed by some of us or under our direction. Each article was examined by at least two chemists, and some were subjected to several analyses. While certain of the preparations are represented as being chemical compounds, the specimens examined were all found to be mixtures; the principal ingredient being acetanilid. The percentage proportions of acetanilid given below are the minimum obtained by any of the analysts.

Soda and ammonia, combined with carbonic acid, are calculated and reported as sodium bicarbonate and as ammonium carbonate (U. S. P.) respectively. Salicylic acid is calculated and reported as sodium salicylate. Diluents and other constituents than those reported were not determined.

AMMONOL.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid.	Sodium Bicarb.	Ammonium Carb.
50.	25.	20.

ANTIKAMNIA.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture,

and to contain the following ingredients approximately in the proportions given:

Acetanilid	Caffein	Citric Acid	Sodium Bicarb.
68.	5.	5.	20.

KOEHLER'S HEADACHE POWDERS.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Caffein
76.	22

ORANGEINE.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Sodium Bicarb.	Caffein
43.	18.	10.

Other constituents said to be present were not determined.

PHENALGIN.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Sodium Bicarb.	Ammonium Carb.
57.	29.	10.

Certain packages of phenalgin were purchased which on analysis did not show ammonium carbonate.

SALACETIN.

According to the analyses of the contents of the original sealed packages as purchased, this was found to be a mixture, and to contain the following ingredients approximately in the proportions given:

Acetanilid	Sodium Bicarb.	Ammonium Carb.
43.	21.	20.

We recommend that this report be printed in THE JOURNAL of the American Medical Association.

Respectfully submitted

J. H. LONG, M.S., Sc.D.,
W. A. PUCKNER, PH.G.,
S. P. SADTLER, PH.D.,
J. STIEGLITZ, PH.D.,
H. W. WILEY, M.D., PH.D.,
} Committee on Chemistry, Council on Pharmacy and Chemistry of the A. M. A.

ANASARCIN AND ANEDEMIN.

Reports of the Council on Pharmacy and Chemistry and Comments Thereon.

(From The Journal A. M. A., May 4 and 11, 1907, pp. 1535, and 1641.)

The following reports were submitted to the Council by the subcommittee to which these articles were assigned:

ANASARCIN.

To the Council on Pharmacy and Chemistry:—Your subcommittee to whom Anasarcin (Anasarcin Chemical Co., Winchester, Tenn.) was assigned, herewith submits its report:

This remedy is offered in two forms: "Anasarcin Tablets," a pretended combination of the active principles of oxydendron arboreum, sambucus canadensis, and urginea scilla; and "Anasarcin Elixir," said to contain the active principles of oxydendron, sambucus, hepatica and potassium nitrate. The advertisements of these articles conflict with the rules of the Council as follows:

With Rules 1 and 2: The composition of these articles is kept secret, in that the proportion of the ingredients is not furnished. The statement that it contains the "active principles" is misleading, since these are for the most part unknown.

With Rule 6: The description of the pharmacologic action of Anasarcin agrees practically with that of squill. No material part of its effects can be attributed to the other ingredients. Nevertheless, the advertisement studiously cultivates the impression that Anasarcin has no relation whatever to the digitalis group in which scilla is commonly placed. The claims are therefore misleading. The claim of its infinite superiority to digitalis, the claims that it cures neurasthenia, eliminates uric acid in rheumatism, and is useful in obesity, cystitis, lumbago and eclampsia, dyspepsia and asthma, and that it works wonders in exophthalmic goiter, appear exaggerated or false.

The recommendation of its indiscriminate use in nephritis, for lowering the blood pressure and the statement (contradicted in the firm's own literature) that it is not depressing are actually dangerous.

It is recommended that the articles be refused recognition, and that the report, with explanations, be published.

ANEDEMIN.

To the Council:—Your subcommittee to whom Anedemin (Anedemin Chemical Co., Winchester, Tenn.) was assigned herewith submits its report:

Anedemin is an evident imitation of Anasarcin. It is marketed as tablets, said to contain the isolated active principles of strophanthus, apocynum, squill and sambucus—chemically combined. The quantities are not stated. The therapeutic claims are copied almost literally from the Anasarcin circulars and are equally false. Anedemin, therefore, conflicts with Rules 1, 5, 6 and 7.

It is recommended that this report be published, with comments.

The reports were adopted by the Council and are herewith published.

W. A. PUCKNER, Secretary.

REMARKS ON ANASARCIN AND ANEDEMIN.

ANASARCIN.

This wonderful remedy, Anasarcin, has already been exposed in these columns (vol. xlvi, p. 288), but it deserves additional mention, as it teaches several important lessons of general application. It is a typical example of the revival, under a new name and a thin disguise, of an old, time-worn article, squill, presumably because experience has demonstrated its general inferiority to other drugs. Anasarcin further illustrates the dangers involved in the use of semi-secret nostrums. It also shows how a short experience with a widely advertised but little understood drug is apt to lead to conclusions which more extensive experience demonstrates to be entirely fallacious.

The first lesson is, that formulas are not always what they seem. A hasty glance at the formula of Anasarcin tablets, the basis of the Anasarcin dropsy cure, creates the impression that it is a non-secret remedy; for it is said to represent a combination of the active principles of oxydendron, sambucus and scilla. As a matter of fact, it is a secret nostrum of the insidious kind. A formula which omits the quantities of its potent ingredients means very little. Further than this, we do not hesitate to charge that the claimed composition is a deliberate deception. The circulars emphasize the claim that Anasarcin consists of the *isolated principles*, and not of the crude drugs. Now, the isolated active principles of sambucus and oxydendron are not on the market, for the good and sufficient reason that no active principles have ever been isolated. Are we to believe that the Anasarcin Company has surpassed the accredited chemists and has discovered such principles and is isolating them? We shall have more to say on this subject presently; but any one in the least familiar with the difficulties attending the isolation of organic principles knows such

an idea to be preposterous. Indeed, it is absolutely incompatible with the exhibition of ignorance of the elementary facts of pharmaceutical chemistry which is given by these people when they call the active principles of digitalis and squill "alkaloids."

It is an axiom that the effects of a mixture can only be understood if the action of its components are known. So far as we know, the physiologic effects of oxydendron and sambucus have never been scientifically investigated, for the simple reason that they are too slight and indefinite to promise results. Both are credited with some slight, obscure diuretic action. Oxydendron, the sour wood or sorrel tree, is a small tree of the heath family, the acid leaves of which are said to be chewed by hunters for their pleasant taste and for the relief of thirst. Sambucus is the common elder. It is most unlikely that these two innocuous substances should play any part in the claimed powerful effect of Anasarcin; they are evidently put in the formula, we do not say in the preparation, to obscure the fact that Anasarcin is composed principally of squill. That this is so can be gathered unmistakably from a study of the pharmacologic action of Anasarcin as described by its promoters:

> Acting primarily on the heart and arterial systems through the nerve ganglia, a natural physiologic balance is established between the arterial and venous systems, whereby effusions . . . are eliminated . . . . Coincident with this action there is a noteworthy *slowing* of the pulse. . . . If the remedy is pushed, can be brought down to 20 or 30 beats per minute. . . . Its physiological action is to stimulate the cardiac motor-ganglia through the cardiac plexus of the sympathetic system and at the same time exert an inhibitory influence upon the cardiac fibers of the pneumogastric, thereby dilating the arterioles, slowing the heart's action, and increasing the force of the systole. . . . The prolonged diastole allows the ventricle time to completely fill, and the more forcible contraction causes the mitral valve to close more thoroughly and at the same time increases pressure in the coronary arteries, serving thereby the double purpose of relieving pulmonary engorgement and increasing heart nutrition.
>
> Anasarcin will nauseate some persons.

To appreciate fully the meaning of this description of the actions of Anasarcin, it should be compared with the effects of the digitalis group, to which squill belongs. The following account is quoted literally from a recent Text-Book of Pharmacology (Sollmann):

The phenomena of the therapeutic stage of digitalis action are said to be:

1. Slowing of the heart, with systole and diastole both lengthened.
2. Increased strength of beat, leading to greater efficiency of the individual contractions, and to an increase in the total efficiency.
3. A tendency to the systolic phase.
4. A rise of blood pressure, due mainly to the increased action of the heart, but partly also to a vaso-constriction.

The therapeutic action may be explained, in part, as follows:

A larger amount of blood will be thrown into the aorta and coronary circulation. The first effect will be an improved nutrition of the heart. . . . The tonic action . . . narrows the ring of the valves, brings them together, narrows the orifice. . . . The venous congestion will tend to be relieved. This relief . . . will fall in the first place upon the lungs. . . . The lowering of the venous pressure will tend to cause absorption of the effusions.

The nauseant action of squill, which is alluded to in connection with Anasarcin, is too well known to require more than a mention.

In brief, then, it appears from the statements of the Anasarcin Company that the action of the remedy is that of squill and that the other ingredients are a mere blind. It is, of course, well known that squill can be used as a substitute for digitalis in cardiac dropsy, although it is generally considered very inferior to the latter drug. Rose Bradford, for instance, states: "Squill is not used to any extent in the treatment of cardiac disease and cardiac dropsy, digitalis being a far more efficient and less toxic substance." However, it has been frequently observed that digitalis occasionally fails, and it may then be replaced successfully by another member of the group. At all events, it is very likely that squill is a fairly efficient substitute for digitalis, especially when it is supplemented by a very free course of Epsom salts and by potassium nitrate (the active ingredient of Anasarcin Elixir), both of which are stated to be essential adjuvants to the Anasarcin (or squill) tablets. There can be no objection to the use of squill when it is indicated; but any one who wishes to use it should do so with his eyes open, knowing what substance he is using and how much (which he does not in Anasarcin); knowing also that it has the same indications and limitations as digitalis. He should not be misled by such statements as the following:

"Does what dropsy medicaments have hitherto failed to accomplish."

"Superior to digitalis, strophanthus, scoparius, squills, acetate of potash and the hydragogue cathartics all put together."

"The only known relief" (how modest!) "and permanent cure of dropsies."

"Unrivaled heart tonic." "The most powerful agent known."

Any one wishing to use squill should take the trouble to acquaint himself with the results obtained by competent and independent observers, and not rely on it in eclampsia, septicemia, "vices of civilization," all forms of neurasthenia, as "an active eliminator of uric acid in rheumatism," in hepatic cirrhosis, dyspepsia, asthma, obesity, cystitis (!), lumbago, exophthalmic goiter, etc.

He should also learn the contraindications to the use of squill, deducible from the fact that it causes vasoconstriction and raises the blood pressure (prohibiting its use in Bright's disease and arteriosclerosis), and that it produces marked gastric irritation, consequently nausea and depression, that it is a very toxic agent, and that the dangers of cumulative action must be borne in mind. In respect to these the advertisements of the Anasarcin people are little short of criminal, for these state:

"Safe in administration." "Non-toxic as ordinarily administered." "Will nauseate some persons," but "the reaction from the temporary depression is prompt." "In Bright's disease, both the interstitial and parenchymatous forms of nephritis, acute or chronic, no remedy . . . to equal it in efficacy." "Without increasing the debility of the patient or interfering with nutrition by producing loss of appetite." "This treatment is to be continued without cessation until all symptoms of dropsy have disappeared."

Physicians who are inclined to disregard this warning, and who follow the advice of the Anasarcin people, should remember that their patients—or their friends—will put the blame for the results, which are bound to follow sooner or later, on the prescribers, and not on the deceptive advertisements of the Anasarcin Chemical Company.

There is another little matter which throws an illuminating side-light on the Anasarcin Company. They take every occasion to say that Anasarcin is "not offered to the laity," "never sold to the laity," etc.; but witness the following, which was found in the *Retail Druggist* of May, 1906, p. 179. The italics are ours:

CURE FOR DROPSY.

As every druggist knows, dropsy has been one of the incurable diseases when caused either from heart, liver or kidney trouble. A *pharmacist* in Winchester, Tenn., *has worked out a remedy* called Anasarcin, which he is exploiting to the physicians, and his remedy is showing itself as possessing great merit. Several hopeless cases have been treated as a last resort by Anasarcin and in a very short time the patient has shown marked improvement and has effected permanent cures.

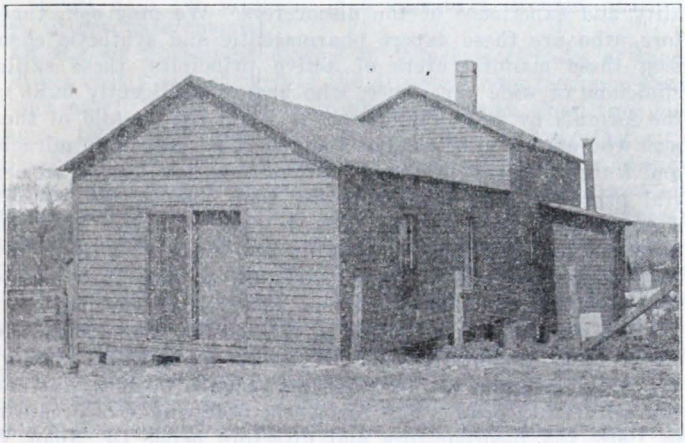
The result of the cases as handled by the physician with the aid of Anasarcin has been so easily and quickly cured that physicians of Tennessee and the southern states are high in their praises of the remedy. The company which now manufactures and sells it is known as the Anasarcin Chemical Co., of Winchester, Tenn. *Any druggist who knows of a case of dropsy would be conferring a favor on the patient and mankind in general by telling the party* or his physician *of the southern pharmacist*, and we have no doubt but what a prompt relief and permanent cure would be affected [Probably means effected.—ED.]

ANEDEMIN.

If we are disposed to doubt the vaunted scientific ability of the Anasarcin Company, we are forced to admire their business methods, at least, if there is any truth in the saying that imitation is the seal of success. Anasarcin has had this rather undesirable compliment paid to it, for its native town of Winchester has given birth to another remedy, Anedemin, which looks like a fair-haired twin brother. The Anedemin Company has adopted Anasarcin almost bodily. The name—"opposed to edema"—is about as close as the copyright laws permit. The pharmacologic and therapeutic claims agree almost literally with those of Anasarcin and contain the same exaggerations and dangerous mis-statements. There is the same emphasis on free purgation with Epsom salts. The dose is the same. Both are marketed at two dollars for a box of 100—only the Anedemin people have adopted the prize package device of throwing in 20 or 30 tablets extra, for good measure, and give a discount of 75 cents or so.

In short, the Anedemin Company has appropriated all of Anasarcin which they considered of any value. It is, therefore, rather suggestive that they drew the line at the formula. Anasarcin is said to contain squill, sambucus and oxydendron; Anedemin discards the oxydendron and reinforces the squill with strophanthus and apocynum. Notwithstanding this material change in composition, the actions are described as identical; this is again rather suggestive.

The Anedemin Company, like the Anasarcin Company, scorns crude drugs and claims to use only the isolated principles. It was saved the trouble of discovering active principles for strophanthus and apocynum, for these are known; but it managed to find some scope for its inventive genius, "both drugs being so chemically treated and disposed as to absolutely eliminate all objectionable and disagreeable properties and effects" so as to convert a vasoconstrictor action into a dilator action; so as to render them non-toxic and non-cumulative; so as to deprive apocynum of its characteristic nauseant effect. Who can say that the days of miracles are past? Even this is not the limit of Anedemin alchemy; if we are to believe their claims, they have succeeded in forcing strophanthin, apocynum,



Labaroratory and Warehouse of the Anasarcin Chemical Company, Winchester, Tenn.

scillain, etc., to combine with each other: "It is a *definite chemical compound* of the active principles" of these drugs! This makes the achievements of Emil Fischer in synthesizing sugars and proteids appear as mere child's play.

Since the formulas were completed, however, clinical reports have been numerous enough—almost too numerous, if we are to believe them. Anedemin has been on the market for less than three years; the circulars emphasize that testimonials and endorsements are not solicited. Nevertheless, we are told that it is "endorsed by over fifty thousand clinicians throughout the United States." Since the total number of physicians in the United States and Canada is only about 128,000, this means that nearly every second physician has endorsed Ane-

demin. The Anasarcin Company solicits endorsements and they seem to do the larger business. Hence the majority of physicians of the United States must have written an endorsement of either Anedemin or Anasarcin, or both. Or is this statement another "invention?" It is a little peculiar that nearly all the endorsements come from small towns in sparsely settled districts; practically none from the centers of population. Does this mean that dropsy is more common in the rural communities than in the cities?

THE INVENTORS OF ANASARCIN AND ANEDEMIN.

Even the newspapers, when they tax our credulity with pretended scientific "discoveries," feel the moral obligation of justifying themselves by telling us something of the personality and experience of the discoverers. We may ask, therefore, who are these expert pharmaceutic and synthetic chemists, these manufacturers of active principles, these skilled clinicians of wide experience, who have "intelligently built up the formula by wide application"? What are we told of these men who ask us to believe, on their mere assurance, in miracles and feats of magic; who tell us that they have converted neutral principles into alkaloids, that they have effected definite chemical compounds between these neutral principles, that they have discovered principles that do not exist, that they have changed the actions of these principles to suit their wishes, that, in short, they have reversed the laws of Nature?

These companies are located in Winchester, Tenn., a town of about 1,500 inhabitants, situated in an agricultural country. The town boasts of neither scientific schools, colleges, universities nor laboratories. The Anasarcin Company was organized in 1902, the incorporators and directors being Dr. John W. Grisard and his sons, Dr. John P. Grisard, B. A. Grisard, and A. F. Grisard, and Will W. Walker, all of Winchester. Dr. John W. Grisard seems to be the originator and promoter of Anasarcin. W. E. Walker is an insurance solicitor of Winchester and is not actively identified with the business. We are informed that he owns but a single share of stock having a face value of $100, and that he was added to the company in order to comply with the laws of Tennessee, which require five directors for any corporation. Dr. John W. Grisard, the father, has practically retired, but still has a general supervising interest in the business. There is no regularly licensed pharmacist or chemist connected with the company. The office is in the rear of a jewelry store in the business part of Winchester and on the second floor above. According to our reporter, an office force of about ten stenographers and clerks handles the correspondence and labels and sends out the preparation which

is made in a crude frame building located on a side street and without laboratory equipment. According to our reporter, the work is done by the Grisards and a colored man.

The Anedemin Chemical Company was organized in 1905 with a capital of $20,000, the incorporators and directors being Dr. T. B. Anderton, Floyd Estill, J. J. Lynch, J. M. Littleton and I. G. Phillips, all residents of Winchester, and all lawyers with the exception of Dr. T. B. Anderton. A Mr. Gordon, a clerical employé of the company, is reported to have active charge of the business, to prepare the medicine and conduct the correspondence. The office headquarters, laboratory and complete outfit of the Anedemin Company comprises two rooms over the law office of Estill and Littleton. No one connected with the company is a regularly licensed pharmacist or graduate chemist.

Of the six physicians located in Winchester, three of them (50 per cent.) are engaged in the dropsical cure business. Poor Winchester! Aside from their connection with these two nostrums, these physicians may be estimable and worthy citizens, but where, pray, did they find the extensive clinical facilities and pharmaceutical knowledge necessary for their wonderful and epoch-making discovery? Were they aided in their scientific work by the four lawyers connected with the Anedemin Company or by the insurance solicitor who is a director of the Anasarcin Company? Did the 1,500 inhabitants of the town furnish the vast clinical material necessary for discovering and working out the formulas of these two preparations? If so, we fear that dropsical affections are much more prevalent in Winchester than in any other known spot on the globe. This matter should be investigated. Without doubt the vital statistics of Franklin County would be most interesting and we commend them to the special attention of the medical profession in Tennessee.

CAMPHO-PHENIQUE.

Report of the Council on Pharmacy and Chemistry and Some Comments Thereon.

(From The Journal A. M. A., April 20, 1907, 1365.)

The following report was submitted to the Council on Pharmacy and Chemistry by the subcommittee to which Campho-Phenique had been assigned:

> *To the Council on Pharmacy and Chemistry:*—
> Campho-Phenique, sold by the Campho-Phenique Co., St. Louis, Mo., is claimed to be composed of phenol 49 per cent., and camphor 51 per cent.

Examination of specimens, purchased in the open market, made under our direction, demonstrate that the statements made in regard to the composition are not true. Instead of containing 49 per cent. of phenol (carbolic acid), the analysis showed that it contains not more than 20 per cent. Instead of containing 51 per cent. of camphor, the analysis demonstrates that the amount of camphor is not more than 38 per cent. Besides phenol and camphor, a third substance was found which proved to be liquid petrolatum and to be present to the extent of 38 per cent. or more.

Since the statements made in regard to the composition of Campho-Phenique are deliberate misrepresentations of the facts, it is recommended that the article be not approved.

Besides Campho-Phenique, the above-mentioned firm also sells a preparation labeled Campho-Phenique Powder. While no statement in regard to the composition of this product is made on the label or in the literature, such expressions as "Campho-Phenique in a powdered form" and "Powdered Campho-Phenique" lead to the inference that it has essentially the same composition as that stated for the liquid preparation. An examination of a specimen of Campho-Phenique Powder purchased in the open market showed that 92 per cent. of it was a talcum-like inorganic substance. The remaining 8 per cent. consisted chiefly of camphor with a small amount of phenol.

In view of the fact that Campho-Phenique Powder contains very little phenol, but instead consists chiefly of an inorganic talcum-like substance, its name is misleading and deceptive. It having been shown that Campho-Phenique Powder corresponds to a camphorated talcum powder, the claims that it "has no equal as a dry dressing," that it is "absolutely superior to iodoform," and that it has "all the excellent properties of aristol and iodoform," are unwarranted. It is recommended that the article be not approved, and that this report be published.

The recommendations of the subcommittee were adopted by the Council, and in accordance therewith the above report is published. W. A. PUCKNER, Secretary.

The above report on a much advertised "ethical" proprietary medicine is worthy of the thoughtful consideration of the members of the medical profession, as it illustrates admirably some of the conditions connected with this proprietary medicine business.

THE FORMULA A FAKE.

First, it illustrates the fact that the published formulas of the "ethical" proprietaries are not always reliable. The

Campho-Phenique Company has been very willing to give out a formula, purporting their product to be 51 per cent. camphor and 49 per cent. phenol (carbolic acid). Now, these two drugs will make a liquid mixture, and any druggist can make it, and the mixture will have about the same consistency and appearance as Campho-Phenique. But its effect differs decidedly from that of Campho-Phenique. Some months ago a very intelligent physician, in discussing the proprietary medicine business, said that in some cases physicians could not get druggists to make preparations which were as satisfactory as those which could be bought ready made. He cited Campho-Phenique as an illustration. He said that he had used this preparation for burns, etc., but as he did not like to use preparations put up by companies about which he knew nothing, he asked his druggist to make the mixture in accordance with the published formula. The druggist's preparation was not satisfactory; it had a decidedly different effect from Campho-Phenique, and so he tried another druggist. This druggist also followed the published formula, but his results, too, differed materially from the proprietary article.

The various analyses that have been made show why the preparations put up by the druggists did not resemble that made by the company; since, according to the analyses, Campho-Phenique consists of 40 per cent. liquid petrolatum, which is an inert but soothing diluent, while instead of 49 per cent. of carbolic acid, as claimed, it really contains less than 20 per cent. This is an entirely different proposition. Now, if the physician referred to above will have his druggist make a mixture of 20 per cent. of carbolic acid, 40 per cent. of camphor and 40 per cent. of liquid petrolatum, and will then compare this resulting compound with Campho-Phenique, he will find that there is not much difference. Furthermore, he will realize that there is nothing either new or wonderful about the preparation. Camphorated oil and carbolized oil are both in common use. Campho-Phenique is apparently simply a mixture of the two.

THE POWDER STILL WORSE.

So much for the liquid. The powder seems to be something entirely different, for, according to the chemist's report, over 90 per cent. of it is inert, absorbent, talcum-like material. There is enough camphor and carbolic acid to give the powder an odor and thus mislead physicians, especially those who are in the habit of taking for granted that whatever statements nostrum manufacturers make are true. Perhaps it is a fairly good dressing for wounds—at least it will do no

harm—but its name is misleading and deceptive. For all practical purposes it is essentially a camphorated talcum powder.

THE CAMPHO-PHENIQUE COMPANY A "PATENT-MEDICINE" CONCERN.

The second interesting phase of this "ethical" proprietary is that it illustrates another point, i. e., that many of these articles are supplied to our profession by those who are not legitimate manufacturing pharmacists. The Campho-Phenique Company of St. Louis, according to all reports, is owned and controlled by a gentleman named Ballard. This "company" supplies the medical profession with the preparations under consideration and also with chloro-phenique and scrofonol. We are informed that this same Mr. Ballard is the principal owner, if not the sole owner, of quite a number of "patent-medicine" companies, such as Ballard-Snow Liniment Co., Brown's Iron Bitters Co., Mayfield Medicine Mfg. Co., Smith Bile Beans Co., Swain's Laboratory, and several others. We learn from the wholesale drug trade lists that these various "companies" make and sell, beside the campho-phenique preparations, Ballard-Snow Liniment, Ballard's Herbine, Brown's Iron Bitters, Dr. Herrick's Pills, Richardson's Life-Preserving Bitters, Smith's Bile Beans, Swain's All Healing Ointment, and several other "patent medicines."

It is hardly necessary to make any further comments. The whole business is nauseating to those who know the actual conditions of this nostrum business and how our profession is being deluded. The Campho-Phenique matter is not an exception; it is simply another illustration of these conditions.

The majority of "ethical" proprietaries are foisted on our profession, either without any formula accompanying them, or with a "formula" that is a fake. The majority of the "ethical" proprietaries are manufactured and supplied to physicians, with instructions regarding their use, by men who bear the same relation to legitimate pharmacy that the veriest quack that ever swindled a credulous public bears to scientific medicine.

CELLASIN.

Report of the Council on Pharmacy and Chemistry.

(From The Journal A. M. A., Sept. 12, 1908.)

The following report was submitted to the Council by a committee:

To the Council on Pharmacy and Chemistry:—Cellasin, a product of Mead Johnson & Co., was first submitted under the title of "Cellulin," with the claim that it is a

ferment which is absorbed unchanged into the tissues; that it cures diabetes mellitus, and that it cures tuberculosis and establishes immunity against this disease. As these claims were unsupported by reliable evidence, they were considered extravagant and highly improbable, and it was therefore voted that the product be refused recognition. The manufacturers then indicated a willingness to modify the therapeutic claims, and the product was reconsidered and the statements made in regard to its chemical properties were submitted for verification to the committee on chemistry. This committee reported as follows:

Report of the Committee on Chemistry.—We have completed our experiments on Cellasin, prepared by Mead Johnson & Co., and we are obliged to report that the claims made for it are only in part true. Our tests show that it has at best only very weak fat-splitting power, too weak to make it of any real value. After digestion with pepsin and hydrochloric acid the same slight fat-splitting power seems to be present and this part of the claim of the manufacturer is admitted. We find also that the substance resists the action of 2.5 per cent. hydrochloric acid, as submitted in the modified claims of the firm. As the action on fat is very weak we have not been able to make a perfectly satisfactory experiment on the question of the behavior with trypsin mixtures. On receipt of the new advertising circular we have made further extended tests of Cellasin from which we conclude that the claims as published are very greatly exaggerated. The action of the product on cane sugar is so weak that a quantitative change could not be detected in 24 hours, either by the process recommended by the manufacturers or by tests of our own. The action on starch is quite distinct from that described and likewise very faint. Although a faint fat-splitting power is present, as reported above, the claims as a whole are so far from the truth that it is recommended the product be refused recognition.

The committee on pharmacology reported that the firm was still making extravagant claims for the product and endorsed the recommendations of the committee on chemistry. In accordance with the recommendations of the two committees the Council voted that Cellasin be refused recognition on account of exaggerated chemical and therapeutic claims. The above was submitted to Mead Johnson & Co., who in reply strongly insisted on the correctness of their claim that the action of Cellasin on carbohydrates and fats in acid solution is most powerful. In view of the emphatic assertions of the manufacturer the committee again made tests with Cellasin and reported as follows:

Second Report of the Committee on Chemistry:—We must again report regarding Cellasin that our findings are entirely at variance with the claims submitted by the manufacturers. Since Mead Johnson & Co. have advertised widely that their product has been submitted to the Council for inclusion in New and Non-Official Remedies, we suggest that the reasons for its rejection be published. We have given an unusual amount of time to the investigation of Cellasin and every opportunity has been afforded the firm to substantiate its claims. These claims could not be verified in any samples submitted, and the committee now and finally recommends the adoption and publication of the report.

On motion, the report was adopted and its publication directed. W. A. PUCKNER, Secretary.

CHLORAL, ISOPRAL AND BROMURAL.

T. Sollmann, M.D., and R. A. Hatcher, M.D.

(Abstracted from The Journal, Aug. 3, 1908.)

In view of the statements of Impens, an investigation was made of the effects of chloral and isopral on cats. Impens had stated that what he calls the "toxic quotient" for these drugs, i. e., the quotient of minimum fatal dose divided by the minimum "effective" dose, is uniformly greater for isopral than for chloral and that isopral is, therefore, the safer drug. Impens' experiments were too few to make his conclusions acceptable, especially in view of the observations of Hatcher, which did not accord with them. The subject has been discussed also in the pages of THE JOURNAL by Impens and Reid Hunt, but some points remain which seem not yet adequately decided; hence this investigation.

It seemed to Sollmann that an independent study of the subject, besides his own, would be valuable as a control. He, therefore, asked the collaboration of Professor Hatcher and, receiving his results, has, with his permission, incorporated them with his own. He also tested a new product, bromural, by the same methods and gives the results. Cats were used exclusively and the drugs were administered by stomach tube. The series includes 77 experiments with chloral on 57 cats, 50 experiments with isopral on 40 cats and 23 experiments with bromural on 10 cats. Tables and diagrams are given illustrating the effects of different doses on the animals in producing the various gradations from light natural sleep to the fatal dose, maximum and minimum.

Their findings were radically different from those of Impens, and Sollmann points out that the latter's definition of

the toxic dose as the smallest one which ever causes death, is especially objectionable. Accepting it, however, it is clearly wrong, as shown by Sollmann's experiments which make out isopral nearly twice as fatal to cats as chloral. Impens gives the toxic dose of isopral as 0.4, while in Sollmann's experiments 0.25 proved fatal in two out of three animals, and if we count the late deaths against isopral the lowest recorded fatality would be 0.11 gm. Some of the most important differences refer to the rapidity and duration of their action, and these were recorded in each experiment. With therapeutic doses the onset and culmination of the effect and start and completion of recovery are most rapid with isopral, nearly as rapid with bromural and slowest with chloral. Complete recovery from nearly fatal doses is most prompt with bromural and slowest with isopral, which has the most severe after-effects.

All three drugs tend to produce a fall of temperature, bromural causing the least; their effects on the respiratory center so far as could be observed seemed to be quantitatively identical and proportional to their general narcotic effects. Chloral and isopral produce more or less nausea and retching, especially chloral, while these are conspicuously absent with bromural. This is an undesirable effect, since the weakened heart is not equal to the concomitant excitement, and this explains, in Sollmann's opinion, the occasional cases of death from small doses of chloral. On the other hand, the vomiting may save life, and from this standpoint chloral appears to be the safest drug. This is shown in a table of cases which recovered from ordinarily fatal doses, which shows that 73 per cent. of the animals recovered from chloral, most of them after vomiting, while only 35 per cent. of those taking excessive doses of isopral survived.

Instead of isopral being the "safe hypnotic" of the chloral group, it causes death twice as frequently as chloral with doses of corresponding narcotic effect. Both drugs have a decided effect in causing loss of weight, and isopral is the worst in this respect. The loss varies with different animals and does not appear to be proportional to the dose or narcotic effect. This loss, if serious, tends to progress for some time and recovery is slow. The effect of this loss of weight on mortality is rather striking when it is remembered that the doses were calculated according to the weight at the time of administration, emaciated animals receiving much less than those in good condition. The most probable explanation is the diminished general resistance in the emaciated animals.

Sollmann concludes that Impens worked with altogether too small a material and that his conclusions are entirely unjustified. A fair comparison between different hypnotics can be made only on the basis of the averages of a considerable number of experiments or by trying the several drugs on the same animal. The comparison of a few exceptional or artificially selected results is wholly misleading. If the dose of chloral required to produce a given effect is taken as 100, that of isopral would be about 60 (as stated by Hatcher) and that of bromural about 100. The bromural narcosis is, however, less profound. These ratios hold for all doses, small and large. The toxic quotient of the three drugs is about the same, but in practice chloral is only half as dangerous as isopral, as excessive doses are generally expelled by vomiting and since the subsequent very dangerous cachexia is less pronounced. Occasionally, however, relatively small doses of chloral cause sudden death, namely, when there is great excitement. Large doses of bromural are nearly as dangerous as corresponding doses of chloral, so that it can not be called "absolutely harmless." It does not produce perceptible gastric irritation, differing in this respect from the other two drugs. The gastric irritant effect appears to be about six times as great for chloral as for isopral, i. e., with doses producing the same narcotic effect. Age, size and repeated administration do not influence the susceptibility, but emaciation markedly reduces the resistance.

Sollmann ends his article with the following practical conclusions: "The claims for the superior safety of isopral are totally unjustified. It differs from chloral mainly in the lesser dose (½ to ⅔) required to produce a given effect; in the quicker and shorter action, and in producing less gastric disturbance. Bromural also acts more quickly and less persistently than chloral. The action of therapeutic doses is, moreover, less profound. There is no gastric irritation. Larger doses would be equally as dangerous as chloral."

In the discussion following Professor W. A. Puckner remarked that Dr. Sollmann's paper brought out very forcibly the need of controlling all statements made by interested persons and expressed a hope that other pharmacologists would similarly investigate proprietary drugs. There has been too much hesitancy thus far in this matter. Dr. F. E. Stewart, of Philadelphia, made the suggestion that it would be an excellent thing if manufacturers would pass over their products to the Council on Pharmacy and Chemistry before doing any advertising at all, and in that case they would have

facts instead of fancies to give to the public. Dr. Sollmann remarked that such a course would prevent many heart burnings.

DIGESTIVE FERMENTS.

(From The Journal A. M. A., Feb. 2, 1907.)

Medicinal preparations are on the market that are said to contain the digestive ferments pepsin and pancreatin. A combination containing these two digestives, at least in liquid form, is, as some one has expressed it, "a therapeutic absurdity and a chemical monstrosity." The subcommittee of the Council on Pharmacy and Chemistry, to which some of the proprietaries, or "specialties," were referred, has for nearly a year labored with the problem as to what should be done with them. The committee appreciated that some of these preparations were being used by a large number of physicians, and to refuse to recognize any of them might subject the Council to the charge of being too narrow, too particular, or too something or other—at least unless the reason for such refusal was explained in a convincing manner.

In the Pharmacology Department this week[1] will be found the report of the committee as adopted by the Council relative to this class of preparations. In so many words, the Council refuses to approve—and gives reasons for its action—any liquid preparation said to contain both pancreatin and pepsin. The fact that so many of this class of combinations have been used for so long with scarcely a protest is remarkable. It can only be explained on the assumption that many physicians believe the literature sent them by the manufacturers rather than scientific works and recognized text-books. Those who use these preparations have at least forgotten the fundamental physiologic facts relating to digestion and to the digestive ferments. Certainly every medical student knows that pepsin acts only in an acid medium, and the pancreatic juices only in an alkaline medium; and every physician, if he will stop to think, knows that pepsin and pancreatin can not possibly remain in the same solution without one destroying the other, much less be effective as therapeutic agents.

That there are such preparations on the market is a reflection on those who make them as well as on those who use them. In some instances it must be charged to present-day commercialism, in others to indifference, and in still others to ignorance. The manufacturers who know better blame physicians. The chief chemist of one of the largest manufac-

1. THE JOURNAL A. M. A., Feb. 2, 1907, 434.

turing pharmaceutical houses, which puts out two or three of these monstrosities, said to us recently that physicians call for these preparations, that the company simply supplies the demand. A representative of another large house openly declared that the firm considers it its business to supply whatever is demanded, and that it is in the business for money, and not to try to curtail a demand, the supplying of which is found profitable. It is a pleasure to record the fact that one firm has already withdrawn its preparation from the market.

Undoubtedly, the real facts are that the desire for a universal digestant always has predisposed to a belief in its possibility, that this belief has been fostered by certain unscrupulous manufacturers, and that other more or less honest pharmaceutical houses, threatened by loss of prestige and tempted by the profits on such preparations, have felt obliged to follow suit. Even the National Formulary includes a formula for such a preparation!

While this condition of affairs is a serious reflection on scientific pharmacy, it must not be forgotten that the medical profession is very seriously to blame. Professor Sollmann has agreed to contribute two or three short articles on the subject, and the first one[2] appears this week. Aside from presenting an exposition of the scientific evidence as to the absurdity of these mongrel compositions, he will also point out some other facts about these ferments that seem to be overlooked by many physicians.

ANTIDYSPEPTICS AND VEHICLES.

Comments on Some of the Official Preparations Available for These Uses.

(From The Journal A. M. A., Feb. 2, 1907.)

The proprietary mixtures which are claimed to supply the system with digestive ferments, and which the Council on Pharmacy and Chemistry has shown to be impossible combinations, have attained wide popularity entirely through persistent advertising. However, since they are largely used, they must serve some purpose. What is it? Simply that they make excellent vehicles and occasionally are effective as antidyspeptics.

AS VEHICLES.

The choice of a proper vehicle for nauseous drugs prescribed in solution has received too little attention in the education

---

2. THE JOURNAL A. M. A., Feb. 2, 1907, 415.

of physicians. In consequence, many physicians have accepted eagerly the solution of the problem offered by the proprietary manufacturer and have fallen into the habit of using these preparations simply as vehicles without reference to their value as digestive agents. Apparently physicians forget or do not know that both the Pharmacopeia and the National Formulary furnish us with preparations just as serviceable as vehicles as the proprietary digestives like elixir of lactopeptine, pan-peptic elixir, peptenzyme elixir, etc.

The subject of vehicles, etc., was treated somewhat extensively in one of the series of special articles on the Pharmacopeia and the Physician (THE JOURNAL, June 23, 1906), but it may be worth while again to refer to some of these which should replace the impossible proprietaries.

When the attention of a very intelligent physician was called to the impossibility of a mixture containing the substances which the manufacturers of the Elixir of Lactopeptine claim that their preparation contains, he said that he used it simply as a vehicle, and laughingly acknowledged that its pretty color had something to do with its popularity so far as he was concerned, and undoubtedly he represented many others. The appearance of medicines is well worth the physician's attention, not only from the desire to make himself popular with his patients, but because of the effect produced by psychic impressions.

The addition of some coloring matter is frequently desirable to improve the appearance of medicines, and without doubt much of the popularity of some nostrums is due to their pretty color. An attractive bright red color can be communicated to mixtures by the use of about 1 per cent. (5 minims to the ounce) of tincture of cudbear (tinctura persionis, N. F.). Carmine will produce a red color in alkaline solutions. For brown colors, addition of the compound tincture of cudbear (tinctura persionis co. N. F.), will give the desired result, and for neutral or alkaline solutions glycyrrhizin may be used. For yellow coloring 1 per cent. (5 minims to the ounce) of tincture of hydrastis, U. S. P., may be used.

Medicines should be made as palatable as possible, and the Pharmacopeia and National Formulary contain some excellent vehicles, especially certain elixirs, which may properly supersede the proprietary vehicles. For instance we have elixir aromaticum, U. S. P., elixir adjuvans, U. S. P., elixir eriodictyi aromaticum, N. F., elixir taraxaci compositum, N. F., and the two elixirs of glycyrrhiza. The vehicle should be

chosen to fit the remedy to be administered, so far as practicable, and in this respect a selection from the variety of official preparations has decided advantages over the use of a single proprietary elixir whose exact composition is not known. For salts like potassium bromid the elixir aromaticum, U. S. P., forms an excellent vehicle. Thus we may direct:

℞. Potassii bromidi 3iiss 10
Elixir aromatici .....ʒij 60
M.

This mixture contains 10 grains of the bromid to the fluidrachm and is of the same composition as elixir potassi bromidi, N. F.

Sodium salicylate can also be disguised by the use of aromatic elixir. If we wish to secure the effect of color at the same time we can add five drops to the ounce of tincture of cudbear (tinctura persionis, N. F.). Thus:

℞. Sodii salicylatis 3iiss 10
Tincturæ persionis .....m. xv 1
Elixir aromatici, q. s. ad.....ʒiv 120
M. Sig.: Each teaspoonful contains approximately 4¾ grains of salicylate of soda.

The taste of potassium iodid can be disguised by aromatic elixir in the same way and this vehicle is not surpassed for this purpose by any proprietary digestives.

The National Formulary contains a number of other elixirs of special salts which may be used by those who wish to prescribe elegant and palatable mixtures. Among these are elixirs of calcium, lithium, and sodium bromids, potassium acetate, salicylic acid and the various salts of iron, for which orange flower water or the syrup of orange flower are acceptable. When prolonged use of a remedy such as syrup of hypophosphites is necessary the flavor should be changed from time to time; for example, tincture of vanilla may be substituted for the syrup of orange or lemon.

For the purpose of disguising the taste of quinin the preparations of licorice are very suitable. Elixir adjuvans, U. S. P., consists of a mixture of 12 parts of fluid extract of glycyrrhiza with 88 parts of aromatic elixir. One may prescribe

℞. Quininæ sulphatis 3ss 2
Elixir adjuvantis .....ʒij 60
M.

This is to be triturated in a mortar and directed to be shaken before taken. No acid should be used to dissolve the quinin sulphate, since this would precipitate the glycyrrhizin,

the active principle of licorice. A drachm of this preparation contains 2 grains of quinin sulphate.

Instead of the elixir adjuvans the syrup of glycyrrhiza N. F. may be used and sometimes may be preferable, as it contains no alcohol. Ammonium chlorid is a nauseous salt which is best disguised by syrup of glycyrrhiza.

The bitters used as appetizers and as stomachics owe their therapeutic effects to their bitter taste, so that concealment of this taste tends to defeat the purpose for which the medicine is given. Still if it is thought best to disguise the taste the syrups form appropriate vehicles. Thus we may give nux vomica with syrup of orange, improving the appearance by the use of cudbear if desired.

℞.	Tincturæ nucis vomicæ	℥iiss	10
	Tincturæ persionis	m. xv	1
	Syrupi aurantii	℥iv	120

M.

AS ANTIDYSPEPTICS.

All the proprietary antidyspeptic remedies contain alcohol and aromatics, to which, undoubtedly, what therapeutic virtue they really possess, is due. In cases of distress after meals the physician, as well as the patient, naturally seeks something to allay the present discomfort while waiting for the result of investigation into the cause of the symptoms and the slow improvement that is apt to attend strictly rational treatment. And there are many official remedies that will answer the purpose fully as well as the much-vaunted proprietaries.

Alcohol has a stimulating action on the functions of the stomach and especially in the form of wine will often relieve the uncomfortable feelings that come on after eating, and herein lies one of the principal reasons for the popularity of mixtures containing alcohol. The carminatives, such as cardamom, cinnamon, allspice and ginger will give relief in most cases. Peppermint, chamomile, anise, etc., have a well-deserved reputation for relieving flatulence, colic, and similar conditions. Chloroform is both anodyne and antiseptic and is a valuable remedy in the milder forms of gastralgia. Alkalies are often beneficial and especially in hyperacidity, but are frequently given in insufficient doses.

While a physician should attempt to individualize in the use of these remedies, sometimes it may be advisable to give them in combination, and the Pharmacopeia and National Formulary present a number of excellent combinations which may be used in such cases. As a combination of alcohol and aromatic carminatives, the compound tincture of cardamom,

U. S. P., is superior in safety and efficiency to any nostrum on the market. It contains cardamom, cinnamon, caraway, cochineal, glycerin and alcohol. In addition to its therapeutic properties it has a pleasing red color, which may serve the purpose of suggestion. The tinctura aromatica N. F. is a similar preparation. The average dose of the former is one teaspoonful, of the latter 30 minims. Mistura carminativa contains carminatives and alkalies, but it also contains opium, and, therefore, should be used with the presence of that drug in mind, especially when given to infants. For adults the amount of opium is so small that a drachm contains only one and a half minims of laudanum. Pulvis cretæ aromaticus combines carminatives with an alkali and may be used for hyperacidity. The average dose of 2 Gm. (30 grains) contains enough alkali to neutralize the free acid in 250 c.c. (8 ounces) of normal stomach contents, so that probably twice this dose should be used for full effect.

Incidentally it may be said that most proprietary digestive remedies contain acid, while the majority of cases of dyspepsia require an alkali. In cases in which an acid is indicated, however, the dose should be much larger than those afforded by the proprietary mixtures. If it has been ascertained that a digestive agent is really needed the simplest way is to prescribe pepsin with large doses of hydrochloric acid, which should be well diluted in administration, but if a ready-made digestive mixture is desired the liquor pepsini N. F. may be used, although it also contains an insufficient amount of hydrochloric acid. The elixir, essence, and wine of pepsin of the National Formulary are better suited for use as aromatics and stomachics than as digestive agents, but are worthy of consideration as substitutes for the proprietary digestive mixtures.

In conclusion, the use of these remedies should be regarded merely as palliative and should not be allowed to obscure the need of thorough investigation and treatment of the disease which underlies the symptoms.

The chief value of the digestive ferments should be as pharmaceutical or biologic reagents rather than as true therapeutic agents, namely, for the preparation and predigestion of food articles as indicated in the peptonization of milk.

DIASTASE FERMENTS.

Report of an Examination of the Diastase Ferments by the Council on Pharmacy and Chemistry.

(From The Journal A. M. A., July 11, 1908.)

A subcommittee makes the following report to the Council with the recommendation that it be published:

Among medicinal agents which may be classed as legitimate pharmaceutical preparations few are more widely advertised than are the starch-digesting ferments, the diastases. Along with a number of very good preparations there are several for which grossly exaggerated claims are made, and which are advertised to the medical profession in such a manner as to lead to distrust. Those which have merit have not always been marketed by methods which are wholly free from criticism. In several cases the claims made are more than can be substantiated by actual tests.

There has always been some obscurity in the method of reporting the digesting value of these diastases, and just what is meant by starch conversion or sugar formation is not always clear. In other words, the claims of the manufacturers are frequently stated in terms which are too general.

To be of value statements regarding the digesting power of the diastases should be based on standard and uniform methods of testing. But manufacturers have followed different methods of examination, which naturally makes a fair comparison of products difficult, and in some cases impossible, for any one not conversant with the methods of analysis. Recognizing the importance of uniformity in such work the subcommittee has had a large number of comparative tests carried out on the more important products of this class, employing several methods of analysis. In practice the diastatic action may be measured in terms of malt sugar formed from an excess of starch in a given time, or by the conversion of the starch to a point where the test with iodin shows the disappearance of the blue color, or the disappearance of all color. Results by these three methods are not directly comparable, although there must be some relation between them. Our first experiments were directed toward the clearing up of this point. These experiments were carried out largely by Mr. W. A. Johnson and the most important of them are given in detail in a paper which appears in the May number of the *Journal of the American Chemical Society*. From his numerous tests Mr. Johnson concluded that the best practical comparison may be made by carrying each digestion to the colorless end point, and in his paper certain suggestions are made as to the best methods of conducting the tests. These will be referred to below.

The following table contains the results obtained with a number of commercial products, when examined in this way, the digestions being continued through a period of ten minutes, at a thermostat temperature of 40 C. in all cases. All the

products here examined came from the manufacturers, and the results were confirmed by tests on similar products bought in wholesale drug houses. The results are expressed in four ways for comparison as follows:

A.—Parts of 100 % starch digested to colorless endpoint in ten minutes.

B.—Parts of 92 % starch digested to colorless endpoint in ten minutes.

C.—Parts of 85 % starch digested to colorless end point in ten minutes.

D.—Parts of 85 % starch digested to loss of blue iodin reaction in ten minutes.

	A.	B.	C.	D.
Holadin	102.1	111.0	120.0	171.0
Taka Diastase	16.0	17.4	18.82	26.0
Taka Diastase Liquid.	0.38	0.41	0.45	0.61
Panase	113.0	123.0	133.0	203.0
Panase Essence	3.6	3.91	4.23	6.1
Vera Diastase Essence.	4.2	4.55	5.0	6.7
Diazyme Essence.....	6.12	6.66	7.14	10.3
Diazyme Glycerole....	6.12	6.66	7.14	10.3
Maltine, Plain	2.30	2.50	2.71	....
Maltzyme	2.87	3.12	3.37	....
Trommer's Extract of Malt, plain	0.65	0.71	0.77	....
Trommer's Extract with Cod Liver Oil.....	0.38	0.41	0.44	....

The blank spaces in the fourth column of figures indicate that no tests were satisfactorily completed here to show the conversion to loss of blue color. In fact, with highly colored mixtures this test is not as easily made as the other.

A comparison of the results given in the table with the statements which appear in the manufacturers' circulars, etc., show that the digestive values are all lower than claimed, if we base our comparison on the colorless endpoint reaction, and anhydrous starch conversion. If, however, we carry the digestion merely to the loss of blue color, which seems to be the case in some of the tests frequently cited, and employ starch with an average water content of about 15 per cent., a very different status must be reported. In this manner of reporting results five of the preparations show even more than the claimed values, but the method should not be tolerated for obvious reasons. The results actually found should always be calculated to anhydrous starch for reporting.

The discrepancies between the values claimed for Holadin, Diazyme Essence and Diazyme Glycerole and those actually found in our tests are not very great.

While one part of Holadin by the firm's method is stated to digest 135 parts of starch to the practically colorless endpoint, column C shows that by the method employed in these experiments only 120 parts of 85 per cent. starch were digested to the colorless endpoint. Similarly, while for Diazyme Essence and Diazyme Glycerole it is stated that 1 c.c. will digest 8 gm. "dry" starch to the colorless endpoint, the results given in the table above show that one part digested 6.12 parts of 100 per cent. starch to the colorless endpoint. This is equiva-

lent to 7.14 parts 85 per cent. starch, the kind referred to by the manufacturer.

The claims made for Panase are somewhat misleading and conflicting. In a recent circular issued by the manufacturers a statement is made to the effect that one part of Panase "is capable of digesting at least 200 times its weight of starch in 10 minutes," while in another part of the same circular the complete conversion of 200 parts of starch into sugars is claimed as the work of 1 part of Panase. This claim is certainly wrong, as there is a wide difference between the two kinds of reactions. The figures in the table are sufficiently clear on this point, and suggest a proper modification of the claim to agree with the facts.

The widest discrepancy between the values as claimed by the manufacturer and those found by actual tests seems to be shown in the case of Taka Diastase. The liquid preparation has been tested a number of times in different samples and has always been found weak. Some samples, in fact, were quite inert. This ferment appears to lose strength very rapidly in solution, as the manufacturers now concede. The stability of the solid product is also far from satisfactory, and appears to be less than that of the ferment as marketed some years ago. The two samples examined recently were weak.

From a number of experiments made it appears that the stability of the diastase preparations from the pancreas is greater. In two tests of the Holadin, made some months apart, no appreciable change was noticed. The same thing is true of Panase and the earlier product of the same firm, Vera Diastase. But in the liquid form these preparations, like the Taka Diastase, seem to undergo some alteration in converting power, as the figures above, and others, suggest. Of the samples reported here the Vera Diastase essence was obtained fresh and examined at once, while the Panase Essence was on hand some time before the tests were made. According to the statement on the label the latter should be the stronger, but the reverse is the case. The Panase Essence seems to convert less than is claimed for it, while the Vera Diastase Essence converts more, if we consider 85 per cent. starch and digestion to loss of blue color merely, as satisfactory conditions of the test. It is possible that the somewhat greater age of the Panase Essence may have some bearing on the result.

The two Diazyme preparations appear to be stable, as far as practical requirements are concerned. We have examined the contents of the same bottles of these products at periods three months apart, and found no change in the starch-converting power. The claims for the numerical value of the diastatic activity and also for the stability which are made for these liquid preparations seem to be borne out by the facts as observed.

For the other liquid preparations, Maltine, Trommer's Extract, Plain and Trommer's Extract with Cod Liver Oil,

there are no exact claims as to the digestive power. For Maltzyme, it is claimed that 1 gm. has the power to produce from starch, in 30 minutes, at 37.8 degrees C., 6 gm. maltose. They contain large quantities of the products of enzyme digestion, and have relatively low residual digestive value. They should be classed among the so-called medicinal foods, rather than as agents of digestion.

In the experiments carried out by Mr. Johnson, referred to above, sugar determinations were made also, and these showed a close agreement with the starch conversion, carried to the colorless endpoint. In making the tests for the sugar formation advantage was taken of the results of the other tests, and enough ferment was weighed out in each case to effect the hydrolysis of one gram of anhydrous starch to the colorless endpoint in ten minutes. A series of tests was made on each substance with the same weight of ferment and starch paste, and at the end of 10, 30, 60, 120 and 180 minutes a flask containing the mixture was removed from the thermostat, and the amount of sugar formed, calculated as maltose, was determined. On removing each flask from the thermostat further action was always checked by immediate boiling. The amount of sugar formed at the end of ten minutes was essentially the same in all the samples tested, which included the first eight of the table above. For the gram of anhydrous starch, made up to a 2 per cent. paste, the maltose formed varied between 611 and 635 milligrams, which agrees very well with the usual findings for diastase digestion, under like conditions. There are many such results in the scientific literature.

In the longer periods, however, the amount of sugar formed by the Taka Diastase increased somewhat more rapidly than was the case with the other ferments, and the results of the determination after 180 minutes pointed to the evident conversion of some of the maltose into glucose. The mean value of the maltose formed by the other ferments in this time was about 860 milligrams, with variations from 855 to 872 milligrams, while for the Taka Diastase it was over one gram. But to secure these close results it must be remembered that very different amounts of the several ferments had to be taken at the start; that is, for the weaker digestants more, and for the stronger less was weighed out. The amounts taken varied inversely as their starch digesting activity, as shown by the first line of tests.

These relations may be illustrated by the figures in the following table, in which the first column gives the name of the substance, the second the number of milligrams actually required to convert 1 gram of starch to the colorless end-point in 10 minutes, and the third the weight of maltose formed in this time. The ferment substances were suspended in water and the proper volume was measured out to give the calculated weight. The sugar was found by titration with standard Fehling solution, and is calculated as pure maltose, proper allowance being made for the dilution of the titrated solution. The sugar

amounts found under these conditions are essentially the same, but in producing the sugar 8.85 milligrams of Panase go as far as 9.79 milligrams of Holadin, 62.5 milligrams of Taka Diastase, 163.4 milligrams of the Diazyme liquids or 238.1 milligrams of the Vera Diastase Essence. In making comparisons by the table the fact must not be overlooked that the three preparations there last named are in solution, while the others are solids.

TABLE OF SUGAR FORMATION IN 10 MINUTES.

Column A gives the weight of ferment required in each case.
Column B gives the weight of sugar formed in each case.

	A.	B.
Panase	8.85	622 mg.
Holadin	9.79	634 mg.
Taka Diastase	62.5	611 mg.
Diazyme Essence	163.4	633 mg.
Diazyme Glycerole	163.4	635 mg.
Vera Diastase Essence	238.1	630 mg.

These results, which have been obtained many times in repeating the tests, show that the starch conversion to the colorless endpoint, which is more easily and quickly carried out than is the sugar determination, gives a practically useful measure of the ferment activity, and a measure which bears a close relation to that of maltose formation. We, therefore, recommend the process for all the routine examinations of this nature which have to be made in the testing of the diastase ferments. As is explained in the article by Mr. Johnson, the process here employed was first suggested by Roberts for the examination of ferments of animal origin, and was later modified by Junck and by Francis, and applied to the ferments of vegetable origin. In our laboratory it has been submitted to critical revision with the object of securing greater accuracy through a fuller specification of details of manipulation. The most important points of the process are these, which are presented as easily and practically workable:

1. A clean grade of potato starch is thoroughly washed, first by decantation and then on a Buchner funnel. It is carefully dried at a low temperature, and finally at a higher temperature to a moisture content of about 10 per cent., the exact moisture content to be determined in a separate experiment.

2. For the actual tests about 22 grams of the starch is mixed with 100 c.c. of cold distilled water to make a uniform cream and then poured into 800 c.c. of boiling distilled water. The boiling is continued through ten minutes, and then enough water is added to make the actual starch content (anhydrous) exactly 2 per cent. by weight. For each test quantities of exactly 50 grams of the paste are weighed into a series of 250 c.c. flasks, which are clamped in a large water-bath kept at a temperature of 40 degrees.

3. The iodin test solution is made by dissolving 2 grams of iodin and 4 grams of potassium iodid in 250 c.c. of distilled

water; 2 c.c. of this solution is then diluted with pure water to make 1,000 c.c.

4. In making up the diastase solution the operator must be guided by the results of a few preliminary experiments in each case. For liquid malt extracts, for example, 10 c.c. diluted to 100 c.c. will generally be a proper strength, while in the examination of the dry preparations on the market 200 to 500 milligrams, dissolved or suspended in 100 c.c. of distilled water will usually answer.

5. These solutions are used in this way: Small definite volumes of the dilutions are added to the flasks containing the starch paste in the thermostat, and with the least possible loss of time. The mixtures are well shaken. The volumes added may be as follows, but all diluted to that of the largest volume before mixing: 1 c.c., 2 c.c., 3 c.c., 4 c.c., 5 c.c., 6 c.c. In about eight minutes tests are begun by removing volumes of 5 drops from each digesting mixture by a pipette and adding this to 5 c.c. of the dilute iodin solution in a clear white test-tube standing over white paper. It is best to have a row of these tubes mounted to receive the liquids to be tested. If at the end of ten minutes drops from one of the flasks fail to give the iodin reaction we are ready for a second and more accurate test. Weigh out now 100 grams of the paste into each of six flasks, and, assuming that the endpoint in the first test was found between 4 and 5 c.c., add accurately to the six flasks these volumes of the diastase solution: 8 c.c., 8.4 c.c., 8.8 c.c., 9.2 c.c., 9.6 c.c. and 10 c.c. These volumes should all stand ready and all diluted to 10 c.c, so that they may be poured into the starch and shaken up without delay. They should also have the normal thermostat temperature of 40°, which precaution should be observed with the mixtures added in the first test. The tests with the iodin solution are repeated as in the first trial, and new limits are found between which the exact value must lie. For example, at the expiration of ten minutes the paste to which 8.8 c.c. of the diastase solution is added may show a faint yellowish dextrin color, while that with 9.2 is colorless. We may go further and try a series of new dilutions, but practically it is not necessary. In fact, we can not carry our readings to a much finer degree of accuracy, because of the difficulty of distinguishing between the effects of dilutions so near together, in many cases. In a case like the above illustration it is sufficient to take the mean of the last named dilutions, and calculate the results to the basis of one part of ferment and the starch converted by it.

6. We have recommended potato starch because it is possible to obtain it in a satisfactory condition of purity. The commercial corn starch, even after washing, does not appear to be suitable for the purpose. On microscopic examination the potato starch granules must appear clean and sharp.

The working method is seen to be simple, and if all the commercial diastase ferments are tested in this way their

practical value may be easily compared. Until something better is proposed we believe the scheme as outlined may be safely followed, and that it will be perfectly fair to all concerned.

The above report was adopted by the Council, with the recommendation that before publication it should be submitted to the manufacturers whose products had been examined. The replies were reported to the Council by the subcommittee, and the following supplemental report was submitted to the Council and adopted:

This report has been submitted to the manufacturers of all of the articles described and opportunity given them to make any comment or criticism they saw fit to make. As might be expected, each firm was desirous of changing in some respect the wording of the report so far as it refers to the firm's products, but a careful consideration of these replies does not warrant the subcommittee in admitting the justness of any of the claims made.

Parke, Davis & Co. state that in testing their product, Taka Diastase, the reaction should be carried to the loss of blue color only, and claim that to digest to the loss of all color would work to their ferment "a very grave injustice." They say that "'Taka-Diastase is recommended, not for the rapidity with which it converts starch into maltose and dextrose, but rather for its usefulness in carrying cooked starch through the preliminary stages of digestion or hydrolysis with remarkable rapidity." The subcommittee fails to see the force of this argument, since what is desired in a diastase is conversion of starch into sugar. Besides this, Taka Diastase does not appear to be any more rapid in the preliminary stages than are some of the others, and in the advertising literature it is praised for its power of sugar formation, as are all the others.

In the comments offered by Frederick Stearns & Co. objection is made to the passage in the report in which we point out the discrepancy between the digestion of 200 parts by weight of starch in ten minutes and the conversion of 200 parts of starch into sugars. The firm promises to correct this discrepancy, which should have been done long ago.

Fairchild Bros. & Foster object most strenuously to the position given Holadin in the table, and insist that by *their* method of testing, the product has a higher value than we give it. This, no doubt, is true, but the subcommittee is not concerned with the firm's method of testing, and must be allowed to employ its own, for the reasons pointed out in the report. The object is in part comparison, and for this uniformity of methods is necessary. In this connection it should be noted that in the past the firm has strongly favored the adoption of a uniform method of testing diastase products.

The manufacturers of Maltzyme write in a somewhat indefinite way of their disappointment in the findings of the report, but the letter calls for no special comment.

W. A. PUCKNER, Secretary.

LIQUID COMBINATIONS CONTAINING PEPSIN AND PANCREATIN.

Report of the Council on Pharmacy and Chemistry of the American Medical Association.

(*From The Journal A. M. A., Feb. 2, 1907, 434.*)

The following report was submitted to the Council by a subcommittee:

To the Council on Pharmacy and Chemistry:—The U. S. Pharmacopeia, 8th revision, pages 334-5, states: "Pepsin and pancreatin in solution are incompatible with one another. If the solution be neutral or alkaline the pancreatin gradually destroys the pepsin, and if acid the pepsin destroys the pancreatin." The correctness of this statement has been amply demonstrated by the reports which have been submitted to the Council from time to time on liquid preparations claimed to contain these two ferments.

Thus an elixir was investigated which was by the manufacturers claimed to contain "the five active agents of digestion, pepsin, veg. ptyalin, pancreatin, lactic and hydrochloric acids," and to be "superior to all other remedies in dyspepsia and diseases arising from imperfect digestion," and the committee which investigated the article in question reported that "it was impossible to establish the presence of either the proteolytic or the amylolytic ferment."

Similarly, on another liquid preparation, which was said to contain "pancreatin, pepsin, lactic and muriatic acids, etc." . . . "the combined principles of digestion to aid in digesting animal and vegetable cooked food, fatty and amylaceous substances," the committee reported "this product possessed only very slight proteolytic action and failed to digest 2 per cent. of its own weight of starch."

Again, the report on still another preparation stated: "But while it was said to contain pancreatin, the U. S. P. test for the valuation of pancreatin failed to indicate this ferment."

The report on yet another elixir, claimed to be "the only true digestant, because it contains the enzymes of all the glands which are necessary for digestion," showed that this article did not contain "any appreciable enzyme activity, either amylolytic or proteolytic."

The correctness of these findings of the committee of the Council was generally acknowledged by the manufacturers when their attention was called to the matter. Thus, one manufacturer of digestive ferments writes: "We will ask you to hold this matter up until you hear from us further on the subject. The reason

for this request is that we have been going over our liquid preparations very carefully in order to be sure that after aging they would contain the ferments in that we put into them. The pancreatic ferments in alcoholic liquids seem to lose their strength."

The chemist for a large manufacturing house writes: "There are now on the market a number of preparations in which pepsin and pancreatin are combined in liquid form, and the result is that we have had numberless requisitions from our representatives that we also market such a preparation. As the result of this we have carried out a series of experiments no less than four or five times in order to determine whether pepsin, diastase, and pancreatin would retain their activity in the form of a syrup, wine or elixir. We have proven incontrovertibly that this can not be done. While any two of these substances, or even all three of them, can be dispensed in the form of a liquid by the retail druggist and will retain their normal activity for as long a period as three to six weeks, yet if allowed to stand sufficiently long, they mutually destroy each other; so that in a combination of pancreatin and pepsin the pancreatic enzyme is lost and the pepsin greatly injured, and where diastase is present, both diastase and pepsin (or diastase and pancreatin) mutually destroy each other."

Since it has been demonstrated that pepsin and pancreatin can not exist in one and the same solution for any reasonable length of time, it becomes apparent that liquid preparations said to contain these two ferments are sold under impossible claims. It is therefore recommended:

1. That the Council on Pharmacy and Chemistry refuse to approve liquid preparations that are claimed to contain both pepsin and pancreatin.

2. That the medical profession through The Journal of the American Medical Association, be advised of the fallacy of employing such combinations.

3. That the attention of manufacturers be called to the worthlessness of such incompatible liquid preparations of pepsin and pancreatin, and that they be urged to cease offering such products to the profession.

4. That, since the National Formulary has recognized a preparation of this kind under the title "Elixir Digestivum Compositum," the American Pharmaceutical Association be requested to

INSTRUCT ITS COMMITTEE ON THE NATIONAL FORMULARY TO OMIT THIS PREPARATION FROM THE NEXT EDITION.

The recommendations of the subcommittee were adopted by the Council and publication of the report directed

W. A. PUCKNER, Secretary.

The Fallacy of Combining Pepsin and Pancreatin—Advertisements Measured by Scientific Statements.

(*From The Journal A. M. A., Feb. 9, 1907, 533.*)

In a previous article we published the official announcement of the Council on Pharmacy and Chemistry relative to the liquid mixtures on the market claimed to contain pepsin and pancreatin. Here we present further evidence in the form of quotations from text-books, a class of evidence which, while not always reliable, must be accepted as reliable in this instance, for the reason that it is capable of proof and has been proved. We inject these quotations into a partial list of the preparations on the market, leaving our readers to draw their own conclusions regarding the manufacture and the use of such impossible combinations.

The manufacturer's excuse, as stated last week, is that physicians demand such preparations, and that they are simply supplying the demand. Why do some physicians demand and use such preparations? The answer is easy: because, repeating again, they have depended on the literature of the manufacturer rather than on scientific literature and on text-books. The "literature" in the form of advertisements of Lactopeptin and Elixir of Lactopeptin probably is more responsible for the demand for these monstrosities than any other one thing. It has been said that more money has been spent in advertising Elixir Lactopeptin than has been spent for any other one proprietary preparation on the market. Probably this is true, if we take into account the liberality of the firm in this regard and the time the preparation has been on the market.

It must be remembered that trypsin—mentioned in some of the quotations—is one of the principal constituents of pancreatin.

NEW YORK PHARMACAL ASSOCIATION.

ELIXIR LACTOPEPTINE. "Contains the five active agents of digestion—pepsin, diastase (veg. ptyalin), pancreatin, lactic acid and hydrochloric acid—combined in the proper proportions to insure the best results."

["Useless Pepsin Compounds.—But let me warn you to place no faith in the pharmaceutic monstrosities which are said to contain pepsin combined with pancreatin, with which it is

positively incompatible, nor those in which it is combined with wines or any preparation of alcohol which, except in the weakest dilutions, interfere with its action. . . . Pancreatin not only can not be combined in the same mixture with pepsin, since they mutually destroy each other, but it can not be prescribed with any benefit so long as pepsin and HCl are being secreted by the stomach." Boardman Reed, Diseases of Stomach and Intestine, page 347.]

SHARPE & DOHME.

PAN-PEPTIC ELIXIR. "An efficient tonic-digestion containing pure pepsin, pure pancreatin, pure caffein, lactic acid and celery, the latter being added chiefly for its flavoring properties."

ELIXIR PEPSIN AND PANCREATIN.

ELIXIR PEPSIN, BISMUTH AND PANCREATIN.

ELIXIR PEPSIN, STRYCHNIN, BISMUTH AND PANCREATIN.

["Pancreatin digests albuminoids and converts starch into sugar and proteids into peptones, also emulsifies fats in presence of an alkaline solution (pepsin requiring an acid one). Prolonged contact with mineral acids renders it inert. It is digested by pepsin, and hence probably never passes into the duodenum in its own character." Potter, Materia Medica and Therapeutics, tenth edition, page 373.]

H. K. MULFORD COMPANY.

ELIXIR LACTATED PEPSIN. "Contains pepsin; pancreatin, lactic acid, maltose, hydrochloric acid, etc."

LIQUOR DIASTOS. "Contains pepsin (isolated), diastase, trypsin, ptyalin, nitro-hydrochloric acid, C. P., nux vomica with aromatics."

["In the presence of an acid it (pancreatin) soon becomes inert." A. A. Stevens, Modern Materia Medica, 1903, page 176.]

["Attention is called to the fact that many ferments—especially trypsin—are destroyed by the pepsin. It is, therefore, very doubtful whether any ferment can be given which will act beyond the stomach." Sollmann, Text-Book of Pharmacology, page 749.]

PARKE, DAVIS & CO.

ELIXIR PEPSIN, BISMUTH AND PANCREATIN. "Designed to cover the indications when both the stomach and the duodenum fail in functional activity—that is when there is both gastric and intestinal indigestion—with symptoms of catarrh in the regions named."

ELIXIR PEPSIN, BISMUTH, STRYCHNIN AND PANCREATIN. "Covers the same indications as the preceding, with the advantage of the tonic influence of strychnin."

ELIXIR PEPSIN AND PANCREATIN.

ELIXIR PEPSIN AND PANCREATIN WITH CAFFEIN.

MALT EXTRACT WITH PEPSIN AND PANCREATIN.

ELIXIR LACTATED PEPSIN. "A combination of pepsin, pancreatin, diastase, lactic acid and hydrochloric acid."

["Trypsin is gradually destroyed by gastric juice, and even by digestive hydrochloric acid." Hammarsten, Physiol. Chemistry, page 327.]

["Pancreatin and peptonized foods.—We must again point out that the value of these preparations depends on their

being predigested foods, and it would be an error to suppose that in administering them we are introducing an active digestive ferment into the small intestine; for the proteolytic action of trypsin is arrested in an acid medium like the gastric juice, and the gastric pepsin aids in the destruction of the ferment." Yeo, Hare's System of Practical Therapeutics, vol. i, page 221.]

FREDERICK STEARNS & CO.

ELIXIR LACTINATED PEPSIN. "Few combinations of digestive ferments have given better satisfaction than this one. It contains pepsin, pancreatin, vera diastase, lactic acid, hydrochloric acid, sodium chlorid, and milk sugar, thus representing the various digestive fluids of the body."

ELIXIR PEPSIN, BISMUTH AND PANCREATIN.

ELIXIR PEPSIN AND PANCREATIN.

["Pepsin and pancreatin are incompatible in solution, for the reason that if the menstruum be of such acid nature as to preserve the pepsin, the pancreatic enzyme will in time be destroyed; while if it is neutral or feebly alkaline, the pepsin will be destroyed." B. T. Fairchild, Reference Handbook of Medical Sciences, vol. vi, page 556.]

ARTHUR PETERS & CO.

PETERS' PEPTIC ESSENCE COMP. "This valuable preparation contains pure pepsin, pure pancreatin, pure diastase, pure lactic acid, pure hydrochloric acid, pure glycerin, and aromatics."

["It (pancreatin) may be given dry, in powder, capsules or compressed pills, or in solution. It should be administered in combination with an alkali, as the activity of pancreatin is destroyed by acids." Butler, Materia Medica and Therapeutics, fifth edition, page 499.]

WM. S. MERRELL CHEMICAL COMPANY.

ELIXIR ATONIC DYSPEPSIA, PHENOLATED. "Contains pepsin, pancreatin, cascara sagrada, ipecac, nux vomica, phenolated elixir."

MALT EXTRACT WITH PEPSIN AND PANCREATIN.

["Kühne made the observation that the activity of trypsin was permanently destroyed by digesting its solution with pepsin and hydrochloric acid. . . . Meltzer finds that hydrochloric acid alone destroys trypsin, but not as rapidly as when pepsin is also present." Schaefer's Text-Book of Physiology, vol. i, page 337.]

WILLIAM R. WARNER & CO.

ELIXIR PEPSIN AND PANCREATIN.

LIQUID PANCREOPEPSIN. "Comprises the natural and assimilative principles of the digestive fluids of the stomach and duodenal tract, viz.: Pepsin, pancreatin, lactic and muriatic acids."

["This ferment (pancreatin) is completely destroyed in the gastric juice. This is why thinking practitioners should not use both pepsin and pancreatin together in the same solution, because the medium in which one must act is opposed to that of the other. In the majority of cases in which pancreatin is

given empirically, HCl is still secreted in the stomach and the ferment is destroyed." Hemmeter, Diseases of the Stomach, pages 345-6.]

SMITH, KLINE & FRENCH.

ELIXIR PEPSIN, BISMUTH AND PANCREATIN.
ELIXIR PEPSIN AND PANCREATIN.

["The value of pancreatin is even more problematical than that of pepsin, for though it would no doubt be valuable where the digestive ferments, particularly those of pancreas, were deficient, this has not been shown to occur. On the other hand, the pancreatic ferments are certainly destroyed in passing through the stomach." Cushny, Pharmacology and Therapeutics, on the Action of Drugs, page 710.]

COLUMBUS PHARMACAL COMPANY.

PEPTIC DIGESTANT. "Composed of pepsin, pancreatin, diastase, hydrochloric and lactic acids, combined with an aromatic vehicle."

["Pancreatin does not act in an acid medium and should not be given with acid." W. Gilman Thomson, Practical Medicine, 1900, page 403.]

LILLY & CO.

ELIXIR PEPSIN AND PANCREATIN.
ELIXIR PEPSIN AND PANCREATIN COMPOUND.
ELIXIR PEPSIN, PANCREATIN AND BISMUTH.
ELIXIR PEPSIN, PANCREATIN, BISMUTH AND STRYCHNIN.
ELIXIR PEPSIN AND PANCREATIN WITH CAFFEIN.

["For action it (pancreatin) requires the presence of an alkali and in the acid gastric juice would not only not act, but would itself in all probability be digested and destroyed as a ferment; and it is of no value except for the preparation of predigested foods." H. C. Wood, Therapeutics, Its Principles and Practice, 1900, page 798.]

THE MALTINE COMPANY.

MALTINE WITH PEPSIN AND PANCREATIN. "Contains the three principal artificial digestants, diastase, pepsin and pancreatin, in such proportions as to be capable of converting all foods required by the human organism into the soluble condition necessary for proper assimilation."

["Hence it is obvious that pancreatic extracts or ferments given by the mouth can be of no value whatever, since the proteolytic ferment at least will undoubtedly be destroyed in the stomach before reaching its normal sphere of action." Chittenden, quoted by Yeo in Hare's System of Practical Therapeutics, vol. i, page 221.]

REED AND CARNRICK.

PEPTENZYME ELIXIR. Formula: "Enzymes of the peptic glands. . . . Enzymes of the pancreas. . . Enzymes of the salivary glands. . . . Zymogens from the spleen. . . . Enzymes of the intestinal glands."

["Pancreatin, a mixture of the enzymes of the pancreas . . . does not act in an acid medium and is rapidly de-

stroyed by the action of hydrochloric acid in the stomach." Croftan, Clinical Therapeutics, page 365.]

["Pepsin is incompatible with pancreatin, this in neutral or alkaline solution destroying pepsin, while in acid media being destroyed by the pepsin." Culbreth, Materia Medica and Pharmacology, 1906, page 655.]

The above is respectfully referred to the thoughtful consideration of the medical profession of the United States.

FORMALDEHYD DERIVATIVES.

Torald Sollmann, M.D.

(*Abstracted from The Journal A. M. A., Sept. 5, 1908.*)

In view of the conflict of the claims of the manufacturers and the findings of outside investigators in regard to certain proprietary "internal antiseptics," Sollmann undertook a direct experimental investigation of the questions involved.

I. In the determination of the antiseptic value, he has departed from the customary methods and aimed to reproduce as far as possible the conditions under which the drugs are actually used.

II. The antiseptic qualities of most of these drugs are based on the assumption that they are decomposed in the body with regeneration of the formaldehyd or other active radicles. Before investigating whether these decompositions occur in the body he studied them in simple solutions under the influence of reagents slightly more powerful than those acting in the body.

The Jorissen test for formaldehyd was used throughout and the results are summarized as follows:

1. Glutol contains considerable free formaldehyd and an additional amount is liberated by boiling, especially in an alkaline media.

2. Citarin and novasperin develop formaldehyd promptly in all media, even in the cold. The citarin liberates formaldehyd somewhat most readily. The reaction is greatest in the alkaline, least in the acid medium.

3. Hexamethylenamin and tannopin develop formaldehyd in all media, most in acid and least in alkaline. The reaction, slow at room temperature, is prompt on boiling.

4. With iodomuth, tannoform and tannopin the lower temperatures could not be used well on account of discoloration. On distillation they all liberate formaldehyd. Iodomuth: Most with alkali, doubtful trace with acid, none with water. Tannoform: Most with alkali, some with acid and water. Tannopin: Most with acid, less with water, least with alkali.

Tannipin contains no free formaldehyd while tannoform apparently does.

5. Formidin, guaialin, sodi-forma-sal and ur-a-sol do not liberate formaldehyd in any reaction. The postive reaction claimed by the manufacturers with the salicylic acid test as evidence of decomposition of the molecule can not be accepted as such as it was also given by the undecomposed products. Formidin and iodomuth contain iodin in the molecule, but the iodin test can not be utilized to demonstrate a decomposition of these products.

III. In the medicinal use of these drugs their decomposition would occur mostly in the intestines through the agency of the pancreatic juice, as shown by Nencki and Lesnik. This would be the only possibility for insoluble drugs; with soluble ones the possibility of decomposition elsewhere in the body must be accepted. Sollmann preferred the method of digestion outside of the body to that of introducing the drug into a ligatured loop of the duodenum of living animals. His results are given in tabulated form; they indicate that pancreatic digestion does not decompose these drugs more readily than does water; the only exceptions being the saponification of salol, and to a slight extent of urasol.

IV. Urinary examinations were made to test the decomposition of these drugs in the body, all on one person. The methods of testing are described in detail. The urine furnished evidence that hexamethylenamin renders the urine strongly antiseptic; it was made feebly antiseptic by novaspirin, salol and sodium salicylate. The urine did not furnish any definite evidence of the decomposition of tannopin, formidin, urasol, sodiformasal, citarin, novaspirin or tannoform; iodomuth was only slightly decomposed.

V. To test the efficiency as intestinal and wound antiseptics, Sollmann used the retardation of pancreatic and blood putrefaction. The transference of the results of the clinical conditions require some judgment. Side actions must be considered and the observations reported are confined to putrefactive organisms. The most effective drugs which prevented putrefaction were benzoate and salicylate of sodium, creosote, bismuth subnitrate, novaspirin, urasol and hexamethylenamin. Others retarded putrefaction more or less, but citarin was as ineffective as water.

VI. The individual products are discussed separately and the general conclusions are summarized as folows: "1. The methylene radicle is transformed very readily into formaldehyd with some compounds; much more difficult or not at all with others. 2. The formaldehyd thus liberated is completely oxi-

dized in the human organism and does not exert any antiseptic action on the urine. 3. Formidin is neither decomposed nor absorbed to any appreciable extent in the intestine. 4. Hexamethylenamin is the only reliable urinary antiseptic (by mouth) of the various substances tried. The salicylates (sodium salicylate, salol, novaspirin) have a distinct but much inferior, preservative effect. The following are practically useless: Boric acid, citarin, formidin, iodomuth, sodi-forma-sal, sodium benzoate and sodium phenolsulphate, tannoform, tannopin and ur-a-sol. 5. As intestinal antiseptics, the most efficient drugs appear to be bismuth subnitrate and creosote (also novaspirin and ur-a-sol). These are closely approached by tannoform and iodomuth. Distinctly inferior are formidin, salol, guaiacol carbonate, tannopin and glutol. Guaialin appears to be nearly useless. 6. As relatively insoluble wound powders, the greatest antiseptic power appears to be possessed by beta-naphthol, boric acid, iodoform, quinin sulphate and xeroform. These are closely approached by acetanilid, bismuth subnitrate and orphol. Somewhat inferior are chloretone, formidin, iodoform and ur-a-sol. Distinctly inferior are glutol, guaiacol carbonate, tannoform, tannopin, tannin and salol. Non-antiseptic are cerium oxalate, charcoal, chalk and zinc oxid. 7. Of all the products examined for antiseptic value, hexamethylenamin is the only one which offers undoubted advantages over the older antiseptics. This statement is not intended to reflect on the antirheumatic value of the salicylic products, or on the astringent value of the tannin products."

INGLUVIN.

Report of the Council on Pharmacy and Chemistry.

(From The Journal A. M. A., July 11, 1908.)

A subcommittee of the Council reported that unwarranted claims and misrepresentation were made for Ingluvin by its manufacturers, William R. Warner & Co. recommended that the preparation be refused recognition and that the report be submitted to Warner & Co. for action.

The report was submitted to the firm, and after waiting one month and no acknowledgment or reply having been received, the Council directed its publication. It is as follows:

REPORT ON INGLUVIN.

Ingluvin is manufactured by W. R. Warner & Co., chemists, Philadelphia, Pa. The printed matter contains numerous claims and representations of which the following are specimens:

"A positive specific for indigestion, dyspepsia and the most effective remedy in obstinate cases of vomiting of gestation. . . . A specific for vomiting in pregnancy in doses of from 10 to 20 grains, and a potent and reliable remedy for the cure of marasmus, cholera infantum, indigestion, dyspepsia, and sick stomach caused from debility of that organ. It is superior to the pepsin preparations since it acts with more certainty, and effects cures where they fail. . . . The natural glycocholic acid in Ingluvin is the active principle and the most efficient agent in the treatment of all stomachic and enteric disorders."

Two samples were purchased at different times in the open market and on examination found to consist essentially of powdered meat fiber mixed with what appeared to be a membranous tissue resembling the lining of a gizzard. Both samples on being tested by the method prescribed by the U. S. Pharmacopeia for estimating the strength of pepsin were found to possess little, if any, proteolytic activity. In order to determine whether or not the lining of a fowl's gizzard possesses proteolytic action, a fresh gizzard was secured, the lining washed slightly with water, then removed and on using one-half of same in place of pepsin as prescribed by the Pharmacopeial method, it was found to digest 10 grams of albumin within the time limit. Pepsin, when properly kept, does not lose its strength to any material extent.

A careful examination was made for the presence of glycocholic acid, claimed to be the active principle of ingluvin, but its presence could not be established. Furthermore, the anatomic relations of the fowl are such as to preclude its presence.

The above shows that ingluvin does not possess nearly as much proteolytic activity as ordinary saccharated pepsin recognized by the 1880 Pharmacopeia and which was prepared on the basis of digesting 300 times its weight of egg albumin. Inasmuch as no glycocholic acid is present in ingluvin it would seem that saccharated pepsin would be far more efficacious in treating the abnormal conditions for which ingluvin is recommended in the advertising circulars. Furthermore, the claims made for the preparation are grossly extravagant.

A communication from Warner & Co. has been received since the above report was adopted in which it is stated: "The reason that previous letter was not replied to was because we were desirous of securing all the information possible on the subject. Since that time we have made considerable research and also made laboratory investigation, and are enclosing the accumulated data with diagram of a part of the alimentary canal showing the esophagus, crop and gizzard."

Much of the other matter submitted is immaterial. The following, so far as it means anything seems to confirm the correctness of the report of the Council's referee that ingluvin is practically devoid of proteolytic activity: " . . . the

therapeutic activity must be due to the bitter property, rather than any proteolytic activity, and it probably increases, thereby, the functional activity of the stomach, by which the normal digestive process is increased. Ingluvin in a 0.4 per cent. hydrochloric acid solution at 37 to 40 C. or if mixed with an aqueous solution of pepsin under the same conditions possesses an acrid bitter taste and increases the secretion of the saliva and as this is practically the same condition as when in the stomach, it no doubt stimulates the depressed mucosa peptic glands and increases gastric secretion."

W. A. PUCKNER, Secretary.

COMMENT.

The fallacies attending the use of digestive ferments in most stomach diseases have been previously noted in THE JOURNAL.[1] In most digestive disorders a deficiency of the digestive ferment has not been proved. In cases in which pepsin is lacking, its administration is valueless unless it is combined with large doses of hydrochloric acid, and it is doubtful whether this combination is either necessary or conspicuously useful. There is, however, something so alluring about medication by digestive ferments which are assumed to supply a physiologic need, that since their discovery they have formed a fertile field for the activity of the manufacturer of proprietaries. As by scientific laboratory tests, it is possible to determine whether a given preparation has digestive power, the manufacturers of ingluvin avoid this point by claiming that the remedy acts, not on the food, but on the stomach itself. That remedies may exist which act as stimulants to the digestive secretions can not be denied, although at the present time this power has not been satisfactorily demonstrated. The proprietors of ingluvin finding that proteolytic activity is not to be attributed to this preparation of chickens' gizzards, announce a new therapeutic fact in the claim that "the natural glycocholic acid in ingluvin is the active principle and the most efficient agent in the treatment of all stomachic and enteric disorders." According to the report made to the Council there is no glycocholic acid in this preparation, nor is it possible, from the anatomic arrangements of the fowl's digestive apparatus, for it to get there. By all the tests which can be applied to determine its value this preparation is of much less value in digestive disorders than saccharated pepsin which was discontinued in the pharmacopeia because of its inferiority to the other forms of the ferment.

The repudiation, by the manufacturers, of the more absurd claims made for ingluvin, shows the need of maintaining an

1. Feb. 2, 1907, 415 and Feb. 9, 1907, 521.

attitude of healthy skepticism toward the advertised therapeutic virtues of proprietary preparations. If a physician is disposed to use digestive ferments, he should give preference to the official preparations and ferments from other sources should be required to stand the exact tests which demonstrate the worthlessness of so many preparations on the market.

LABORDINE.

A Report by the Council and Some Pertinent Comments Added Thereto.

(*From The Journal A. M. A., March 30, 1907, 1121.*)

The following report was submitted to the Council on Pharmacy and Chemistry by the subcommittee which examined Labordine:

To the Council on Pharmacy and Chemistry:—Your subcommittee presents the following report on Labordine, sold by the Labordine Pharmacal Co., St. Louis.

Labordine is advertised to physicians as having the following composition:

	Per cent.
Apium Graveolens (true active principle) "Process-Laborde"	35⅜
Gaultheria Fragrantissima (true active principle) "Process-Laborde"	25⅛
Acete Amide-Phenyle	15⅛
Quinina	1⅛
Benzoyl-Sulphyonic-Imide	23¼

It is stated to be a "vegetable antipyretic;" that it "reduces temperature without heart depression," and physicians are warned to "avoid acetanilid poisoning and danger from other coal-tar antipyretics."

While the "formula" and the statement just quoted are sufficient evidence of the fraudulent character of the product, yet an abstract of the reports of the chemists who analyzed it is given to further demonstrate its character.

Taking the average of the reports of analyses, Labordine contains:

	Per cent.
Acetanilid	37.9
Free salicylic acid	6.9
Quinin	present
Saccharin	not found
Corn starch	present
Milk sugar	34.7

The report of analysis only makes apparent that Labordine is not what it is claimed to be. While it is claimed to contain 23¼ per cent. saccharin, this substance was not present, or mere traces only. While, in a disguised way, it is stated to contain 15⅛ per cent. acetanilid, it contained nearly 40 per cent.

It is recommended that Labordine be not approved and that this report be published.

The recommendation of the subcommittee was adopted by the Council, and in accordance therewith the above report is published. W. A. PUCKNER, Secretary.

COMMENTS.

A concrete illustration of some general principles previously laid down is furnished by a nostrum too unimportant to be of any value, save to "point a moral and adorn a tale."

About thirteen years ago Labordine was advertised under the name of Analgine-Labordine, "A purely vegetable product," "a combination of the active principles of *Camellia Thea*, *Apium Graveolens*, saccharin and carbohydrates," "Superior to Antipyrine, Phenacetine, Antifebrine, Acetanilid"—note the use of two names for the same thing—"or any of their imitations," and "unexcelled by any coal-tar product or their compounds." In 1894 the name was changed to Labordine, in order, as its owner stated, to prevent it being mistaken for a coal-tar product of similar name.

What its composition was at this time we do not know, since there is no guarantee of the permanence nor stability of nostrum formulas except "the honor and reputation of the manufacturers," which, as investigation has shown, is not always unimpeachable. There has been nothing to prevent alteration of the formula, if the proprietors desired, with every change in the moon. But the name and the general tone of the advertising has been the same. The claim of superiority over coal-tar products has been constantly made.

As to the present conditions, a circular enclosed with a sample of Labordine, recently sent from the St. Louis office, contains the formula given in the above report of the Council. In the same circular are also found these illuminating statements: "The medical profession has long appreciated the dangers involved in the administration of various mineral remedies now so commonly employed, and the value of a safe, effective and reliable vegetable antipyretic is universally recognized. Such a remedy is Labordine. It is purely vegetable in its composition and produces none of the evil after-effects of the coal-tar derivatives. . . . Labordine . . . is a purely vegetable cardiac stimulant. . . . There is nothing mysterious about Labordine or its constituents. . . . The 'Process-Laborde' gives the true active principles of the Celery and Indian Wintergreen, something heretofore difficult to obtain. To this is added the fact that absolutely chemically

pure Acet-Amide-Phenyle is used. The latter is the most valuable and, in fact, the only vegetable antipyretic known."

The above report of the Council shows the following facts:

1. *Apium Graveolens* (true active principle), "Process-Laborde" is probably powdered celery seed. One chemist says: "The powder has the characteristic odor of celery, while a microscopic examination shows the presence of a substance having the characteristic structure of seeds in general." If celery seed has any "active principle" it has never been isolated. As to its therapeutic value, nothing whatever is known. It is, we understand, highly beneficial in the case of singing canaries, but authorities in scientific therapeutics have never discovered that it possessed any remarkable medicinal qualities.

2. *Gaultheria Fragrantissima* (true active principle), "Process-Laborde," is probably ordinary everyday salicylic acid. One analysis showed salicylic acid to be present to the amount of about 7 per cent. The question of whether or not salicylic acid could in any way be considered the "true active principle" of *Gaultheria Fragrantissima*, was submitted to Prof. John Uri Lloyd of Cincinnati, the eminent authority on the chemistry of the proximate principles of plants, who replies:

> The advertisement is evidently so worded that, although the name of the Indian plant *Gaultheria Fragrantissima* is employed, its true and active principle being wintergreen oil, the concocter can mystify his patrons and at the same time use the well-known wintergreen oil, made in America, which in my opinion, so far as any chemical test might be concerned, could not be distinguished from the methyl salicylic acid (wintergreen oil) derived from the Indian plant. Concerning whether salicylic acid is a proximate constituent of *Gaultheria Fragrantissima*, in my opinion, it would be a misnomer to make such an announcement. Salicylic acid, *per se*, does not exist, in my opinion, in the plants mentioned, being made by chemistry.

3. The third and most important ingredient in this "purely vegetable antipyretic" is brazenly announced as "Acete-Amide-Phenyle," but it is only necessary to say that this imposing designation is an attempt to "Frenchify" a scientific name for acetanilid.

Analysis shows that this coal-tar product is present to the amount of 37.9 per cent., or 1.89 grs. in a 5-grain tablet.[1] In other words, this imposing Labordine, made by a mysterious and elsewhere unheard of "Process-Laborde," is simply one

1. Since this article was prepared we find that the national Food and Drugs Act has forced the proprietors of Labordine to put on the label the amount of acetanilid it contains, viz., 40 per cent., or 2 grains in a 5 grain tablet.

more of the herd of acetanilid powders that have been foisted on our profession and that have filled our journals for years past. The only thing in it that is of practical therapeutic value is 2 grains of acetanilid to a 5-grain tablet. The statement that Labordine is a purely vegetable preparation is probably intended by the proprietors as a good joke on the medical profession. Acetanilid is not usually regarded as a vegetable product, at least it is not ordinarily found in market gardens. The only vegetable source from which acetanilid can be obtained is the beautiful flowering coal-tar bush, from which so many other nostrum vendors obtain their "perfectly harmless, purely vegetable antipyretics," all composed of acetanilid and something to hide it. If the statements made by one of the company's employés and quoted below are true, Labordine is not "manufactured and made chemically pure in the laboratories of the Labordine Pharmacal Company," and this company has no laboratory, as its product is manufactured for it.

4. Our readers will be interested to know that the important ingredient entered under the imposing name of Benzoyl-Sulphyonic-Imide is simply a highly scientific name for saccharin. Even on this point, however, the formula is misleading, since it claims 23¼ per cent. of this substance, whereas the analysis shows that the presence of saccharin could not be proved. If it is present at all it is in quantities much less than stated, and so small as to be difficult of recognition. Instead it appears that the product contains common starch and about 35 per cent. of milk sugar.

THE COMPANY ITSELF.

One of the humiliating phases of the proprietary medicine business is that, in many instances, these preparations are foisted on our profession by men who know nothing of medicine, pharmacy or chemistry, yet not only presume to concoct our medicines for us, but also assume to instruct us how to use them.

Gould's Commercial Register for 1907 gives the officers of the Labordine Pharmacal Company as H. M. Coudrey, president; M. Crawley, vice-president, and D. E. Gamble, Jr., secretary and treasurer. The place of business is given as 420 Market street, St. Louis. We are informed that Harry M. Coudrey is an insurance agent and the present member of Congress from the Twelfth Missouri District; that Mark Crawley is a clerk in the insurance office of H. M. Coudrey; and that Mr. Gamble is cashier in the same office. A recent visit of a representative of THE JOURNAL to 420 Market street, St. Louis, showed that the office of the Labordine Pharmacal Company is in Room 12 on the third floor of an old

This advertisement is reproduced from the *Therapeutic Gazette* of November. For brazen effrontery and shameless mendacity the caution "AVOID ACETANILID POISONING AND DANGER FROM OTHER COAL-TAR ANTIPYRETICS" is hard to beat, when the stuff contains nearly 40 per cent. of acetanilid. And yet this is but a fair sample of nostrum advertising that intelligent physicians tolerate in medical journals they help to support. For how much longer ? ? ?

dilapidated building. There was no sign on the door of the office, but on the wall next to an old elevator was a very small sign which read "Labordine Chemical Company, Room 12." The office at the time of the visit was apparently in charge of a young woman about 20 years old. Careful scrutiny of the furniture and fixtures showed that the room contained an old oak roll-top desk in one corner and a kitchen table, on which were piled about half a dozen packages of Labordine. The floor of the room was bare and very dirty. In an adjoining room, the door of which was open, was piled a lot of broken furniture. No laboratories nor chemical apparatus were visible. The young woman in charge stated that Labordine was made by the Mallinckrodt Chemical Works, at No. 3600 North Second street, St. Louis.

This is a fair sample of the nostrums and of the methods of exploiting them. The bitterly humiliating fact about the whole business is that a preparation, advertised under such palpably misleading claims, could actually be advertised in medical journals, even in journals of a supposedly high scientific standard, and could be bought and prescribed for years by supposedly intelligent and conscientious physicians. It is not supposed that every physician should be enough of a chemist to detect the ridiculous discrepancies between the published formula and the therapeutic claims made for such a mixture. But that members of a supposedly learned profession should fail to have enough interest in the preparations they prescribe for their confiding patients to find out that acetanilid is being masked under an obsolete and little used name, that only saccharin is hidden under an imposing polysyllabic designation; that the so-called "active principles Process-Laborde" (whatever that may be), is only equivalent to ⅓ grain of salicylic acid in a 5-grain tablet, and that the advertising matter sent out for years by this company contained absolute falsehoods regarding the composition and therapeutic benefits of its preparation, is certainly just cause for shame and humiliation. If a physician, knowing the composition of Labordine, wishes to prescribe it and prescribes it intelligently, he has a perfect right to do so. If he wishes his patient to have 2 grains of acetanilid, 1/20 of a grain of quinin, and 1/3 of a grain of salicylic acid, and considers a mixture of ground celery seed, starch and milk sugar as a proper vehicle for this medication, no one will question his right to administer it. No physician, however, has any right, either moral or professional, to prescribe a preparation, concerning the ingredients of which he knows absolutely nothing.

Is it possible that such carelessness may be one of the causes of waning public confidence in our profession? We leave it to our readers to determine whether such a moral can be drawn from this typical nostrum story.

LACTOPEPTINE.

Report of the Council on Pharmacy and Chemistry—with Some Comments Thereon.

(From The Journal A. M. A., March 16, 1907, 959, and March 23, 1907, 1047.)

The following report was submitted to the Council by a subcommittee:

We have devoted considerable time to the investigation of Lactopeptine (powder) and report as follows:

The label on the package contains this statement: "Lactopeptine contains the five active agents of digestion —pepsin, diastase (veg. ptyalin), pancreatin, lactic acid and hydrochloric acid—combined in the proper proportion to insure the best results."

Examinations demonstrated that more than 90 per cent. of Lactopeptine is milk sugar.

The amount of pepsin contained in Lactopeptine is somewhat less than 10 per cent. of official pepsin.

Careful examination failed to show the presence of either diastase or pancreatin.

Examination demonstrated a minute trace of chlorid only, therefore the preparation does not contain any appreciable amount of hydrochloric acid. The amount of lactic acid, calculated from the quantity of potassium hydroxid required for neutralization, was found to be 3 per cent.

From the above, it is evident that Lactopeptine (powder) is at least no more efficient as a digestive agent than the ordinary Saccharated Pepsin, official in the 1890 U. S. Pharmacopeia, but replaced in the present Pharmacopeia by the more active and dependable Pepsin.

These findings were submitted to the manufacturers of Lactopeptine, the New York Pharmacal Association, who, in their reply, stated: "Regarding the assertion that Lactopeptine does not contain pancreatin and diastase, we herewith confirm and reassert our statement that Lactopeptine is and has always been manufactured in accordance with the published formula and that the ferments referred to exist in the preparation as stated in the formula."

In view of these reasserted claims regarding the composition of Lactopeptine, another specimen was purchased in the open market. Its examination showed that it was of even poorer quality than the first specimen examined.

The tests not only failed to show the presence of diastase or pancreatin, but also failed to show the presence of any appreciable amount of pepsin.

From these experiments your subcommittee must conclude that Lactopeptine contains but small amounts of pepsin, that it contains no hydrochloric acid or mere traces only, and that it contains neither diastase nor pancreatin. Hence, the statements made by the manufacturers in regard to the composition of Lactopeptine are incorrect. Since the composition of Lactopeptine is not given by the manufacturers, but, instead, corresponds to a weak saccharated pepsin, it is evident that the claims made as to its therapeutic value are unwarranted, exaggerated and misleading. It is, therefore, recommended that Lactopeptine be not approved. In view of the wide publicity given to the claimed composition and therapeutic value of the article, it is further recommended that this report be published.

The recommendations of the subcommittee were adopted by the Council, and in accordance therewith the report is published. W. A. PUCKNER, Secretary.

Reduced to a few words, the above report shows that—whatever the manufacturer may have put into it—Lactopeptine as it exists on the market was found by the subcommittee to be only equal to a weak saccharated pepsin, which has but one-tenth the digestive power of the official pepsin and that Lactopeptine at times is inert.

That the subcommittee which examined Lactopeptine could find neither diastase nor pancreatin was to be expected, since it has been demonstrated repeatedly that those ferments are destroyed by pepsin in the presence of acid. The examination shows that in the absence of solvents the presence of lactic acid still enables the destruction of pancreatin and diastase. That the manufacturers should have attempted to manufacture such an impossible product, and that the medical profession should have accepted it, is not creditable to either party concerned.

That the subcommittee should fail to find the hydrochloric acid claimed to be contained in the product was a foregone conclusion. If it is remembered that ordinary hydrochloric acid is a solution of hydrogen chlorid in water and that hydrogen chlorid itself is a gas, the absurdity of the claim that it is contained in a dry powder is apparent.

It is astonishing that physicians should so long have used a product about whose therapeutic value extravagant claims have been made, when the very statements in regard to its composition should have condemned it.

A Further Report on the Digestive Power of Lactopeptine.

Dr. Charles H. Miller, assistant professor of pharmacology, Northwestern University Medical School, has voluntarily conducted some experiments for the purpose of learning whether or not Lactopeptine Powder is effective either as an amylolytic or a proteolytic ferment. The following is Professor Miller's report of his experiments, which should be read in connection with the report of the Council on Pharmacy and Chemistry, published last week:

Herewith I send report of tests made by myself relative to the digestive powers of Lactopeptine Powder—obtained from an original sealed package. Being interested in the examination of digestive ferments, I was prompted to take up Lactopeptine Powder because it is a preparation widely advertised. The observations are in accord with the report of your Council, published in THE JOURNAL, March 16.

A. AMYLOLYTIC POWER: ACTION OF PANCREATIN AND DIASTASE.

1. Gelatinized starch paste. Subjected to action of Lactopeptine in amount equal to 50 per cent. by weight of starch (before cooking) at 100 degrees F. for a total of twelve hours. Tested hourly for disappearance or modification of starch reaction.

No change was observed in mucilaginous consistence of the starch paste or purity of the starch reaction with iodin.

Control: The same quantity (30 c.c.) of the same starch paste was practically instantaneously changed to a thin liquid, in which the starch reaction was completely lost within five minutes, after the addition of 2 c.c. of saliva; in other words, 2 c.c. of saliva within five minutes converted 1.5 gms. of starch into dextrin and sugar, while 0.66 gm. Lactopeptine was without action on the same quantity after twelve hours.

2. A second test was made in the same way, except that an alkaline reaction was given with $NaHCO_3$.

The result was identical. No action could be detected.

Control: A similar mixture plus 2 cc. of saliva was converted within five minutes, with disappearance of the starch reaction.

B. PROTEOLYTIC POWER: ACTION OF PEPSIN.

Coagulated egg albumin in glass tubes of 2 cm. in length and 5 mm. diameter, open at either end and completely filled, was subjected to digestion for a total of twenty-four hours, at a temperature of 100 F., as follows:

Digestant	Quantity	Medium	Results 12 hours	24 hours
Lactopeptine	0.33 Gm.	0.2% HCl	1/20 digested	1/10 digested
Lactopeptine	0.33 Gm.	H_2O	inactive	inactive
Lactopeptine	0.33 Gm.	Alk. H_2O	inactive	inactive
Blank	Blank	0.2% HCl	inactive	inactive
Scale pepsin	0·3 Gm.	0.2% HCl	1/2 digested	All digested
Pancreatin yr. old specimen	0.3 Gm.	Alk. H_2O	1/8 digested	1/4 digested
Wampole's papain digestant*	4 Cc.	H_2O	inactive	inactive

* Said to contain pepsin, pancreatin, papain and diastase.

Conclusion: Lactopeptine is apparently equivalent in proteolytic power to the Pepsinum Saccharatum of the U. S. P., 1890, which was a 10 per cent. preparation and like it, Lactopeptine is only active in acid media. It is devoid of active enzymes other than the pepsin, and while the powder is feebly acid in reaction, no activity could be shown when water was the medium employed.

CHARLES H. MILLER,

Lactopeptine Exposed Thirty Years Ago.

(*From The Journal A. M. A., April 6, 1907, 1198.*)

SOUTH BEND, IND., March 23, 1907.

To the Editor:—The report on Lactopeptine in THE JOURNAL of March 23 is very interesting and it is hoped that it will prove equally instructive to your readers. While it is interesting to us pharmacists, I can not say it is especially instructive, for the facts contained therein have been surmised if not actually known to pharmacists for many years. The surprising thing, however, is that the members of the medical profession should go along blindly prescribing such preparations year after year, often against our protest, as was more especially the case with the acetanilid mixtures. For years the pharmaceutical journals had pointed out the deception concerned in the exploitation of the medical profession (and eventually of the public) by nostrums of this character without avail, until the Council, through THE JOURNAL, began some two years ago, to show up the true character of these nostrums. Lactopeptine and especially its elixir have been used in enormous quantities by the medical profession, although in 1876, soon after its introduction, Prof. Emil Scheffer of Louisville, Ky., contributed a paper to the American Pharmaceutical Association, in which he reported some experiments he made on Lactopeptine, and proved that it had no greater digestive value than the saccharated pepsin then in vogue. This paper appeared in the Transactions of the American Pharmaceutical Association for 1876. Although Scheffer

was an authority on the subject, he being the author of the first process for obtaining pepsin in a pure state, it is not apparent that any attention was paid to this article by the medical profession; in fact, it was entirely ignored by medical journals, and extensive advertising soon made Lactopeptine the most extensively employed proprietary article. This leads to the observation how helpless we pharmacists have been in the past because of the lack of cooperation of the medical profession. We have had to supply such articles as were in demand, and when such articles as the Compound Powder of Acetanilid and the Compound Powder of Pepsin and its elixir in the Pharmacopeia and National Formulary are criticised, such criticism should be directed against the members of the medical profession because of their lack of interest and co-operation in the preparation of these standard works. Now that their attention has been so forcibly directed to this anomalous condition, it is hoped that physicians will participate actively in the revision of these joint authoritative standards.

LEO ELIEL,
President, American Pharmaceutical Association.

MEDICINAL FOODS.

(*Abstracted from The Journal A. M. A., May 11, 1907, 1612.*)

A report, of which the following is an abstract, was submitted to the Council on Pharmacy and Chemistry by the subcommittee which examined the medicinal foods:

In order to determine the food value of any food product it is necessary to consider the following points: Chemical composition; available potential energy; absorbability and cost. No attempt is made in this article to discuss each of these features separately, but they are utilized as required.

The ingredients on which the food value of any article of food depends are the proteid substances, carbohydrates, fats, certain inorganic bodies and—under certain conditions—alcohol. The amount of each of these present in a preparation must be established by chemical analysis. From the results thus obtained it is possible to calculate the potential energy represented by a given food product. In this report the potential or food value is expressed in the large or kilocalorie, that is, the amount of heat required to raise the temperature of one kilogram of water one degree centigrade.

The factors employed in this report for expressing in calories the actual amount of energy utilized by the system are 4.8 for proteid substances, 4.1 for carbohydrates, and 9.2 for fats.

The accompanying table embodies the results obtained by submitting all the well-known so-called "predigested foods" to chemical examination. The table as published in THE JOURNAL included columns on: Price per bottle, number of cubic centimeters in a bottle, cost per 500 cubic centimeters, reaction, specific gravity, percentage of non-volatile residue, ash, percentage of nitrogen, calories as proteids in 500 grams, carbohydrates before inversion, alcohol by volume, average recommended adult dose per diem in cubic centimeters, cost per diem to supply 1,430 calories. These columns were eliminated from this abstract, as they were unessential, so far as the practical value of the article is concerned. In most cases two samples of the same brand were purchased at an interval of about six months. All the analyses were made before Jan. 1, 1907. Some of the preparations contain much glycerin which does not, so far as known at present, possess any recognized food value, although there are a number of experiments on record to indicate that it influences metabolism.

The percentage of nitrogen accredited to each of these products represents the total amount of nitrogen, irrespective of the nature of the nitrogenous substances, although some of this nitrogen has no nutritive value.

By multiplying the percentage of nitrogen found by the factor 6.25 we obtain the percentage of nitrogenous matter (proteids) contained in the various preparations. By multiplying the number of grams of nitrogenous matter present in 500 grams of material by the factor 4.8 it is found that the potential energy available by the nitrogenous matter varies from 10.3 calories to 153.1 calories. Five hundred grams of the material is made the basis of calculation, because it approximates a pint, the amount usually believed to be present in the various trade packages, and because it affords a ready basis of calculation.

The carbohydrates are represented by cane sugar, maltose, dextrin and invert sugar. Lactose is probably also present in some, but it is impossible to establish this. By multiplying the number of grams of carbohydrates present in 500 grams of the foods by the factor 4.1 we obtain the potential energy represented by the carbohydrate, which varies from 11.3 to 319.2 calories. The total calorific value of both the proteids and carbohydrates ranges from 54.7 to 397.5 calories. The total food value of an equal quantity of milk, including fat, approximates 360 calories.

The value of alcohol as a food product pure and simple in disease is, however, an open question. There is no doubt whatever but that it acts to a certain

TABULATED RESULTS OF EXAMINATIONS OF MEDICINAL FOODS.

Name of Preparation and Manufacturer.	Glycerine and undetermined matter.	Per cent nitrogenous matter (6.25).	Calories as proteids in 500 grams.	Carbohydrates after inversion.	Calories as carbohydrates in 500 grams.	Calories as proteids and carbohydrates in 500 grams.	Alcohol, by weight.	Calories as alcohol in 500 grams.	Calories as proteids and carbohydrates per diem dose.	*Total calories in per diem dose.	No. Cc. required per diem to supply 1430 calories.
Carpanutrine—John Wyeth & Brother	28.45	4.28	102.7	5.34	109.5	212.2	12.5	437.5	25.5	78.0	1100.7
Carpanutrine—John Wyeth & Brother	21.29	6.24	149.8	5.78	118.5	268.3	14.0	490.0	32.2	91.0	942.9
Liquid Peptones—Eli Lilly & Company	3.63	4.50	108.0	6.05	124.0	232.0	18.0	630.0	69.6	258.6	829.4
Liquid Peptones, with Creosote—Eli Lilly & Company.	4.34	3.84	92.2	13.47	276.1	368.3	18.0	630.0	110.5	299.5	716.2
Liquid Peptonoids—Arlington Chemical Company	0.23	4.93	118.3	10.57	216.7	335.0	14.0	490.0	100.5	247.5	866.6
Liquid Peptonoids—Arlington Chemical Company	2.02	4.53	108.7	11.53	236.4	345.1	14.1	493.5	103.5	251.5	852.7
Predigested Beef—H. K. Mulford Company	3.40	2.38	57.1	4.37	89.6	146.7	16.0	560.0	44.0	212.0	1011.7
Predigested Beef—H. K. Mulford Company	4.37	2.59	62.2	4.55	93.3	155.5	15.5	542.5	46.7	209.5	1024.3
Nutrient Wine of Beef Peptone—Armour & Company	14.97	0.64	15.4	15.43	316.3	331.7	17.5	612.5	66.3	188.8	757.4
Nutrient Wine of Beef Peptone—Armour & Company	13.70	0.43	10.3	15.57	319.2	329.5	17.0	595.0	65.9	184.9	773.3
Nutritive Liquid Peptone—Parke, Davis & Company	1.02	1.86	44.6	12.89	264.2	308.8	18.8	658.0	74.2	232.1	739.5
Nutritive Liquid Peptone—Parke, Davis & Company	1.95	1.16	27.8	13.19	270.4	298.2	17.7	619.5	71.5	220.2	779.2
Panopepton—Fairchild Brothers & Foster	2.60	6.38	153.1	11.92	244.4	397.5	15.0	525.0	39.8	92.3	775.0
Panopepton—Fairchild Brothers & Foster	4.86	6.33	151.9	10.05	206.0	357.9	17.0	595.0	35.8	95.3	750.2
Peptonic Elixir—Wm. Merrell Chemical Company	3.21	2.54	61.0	11.46	234.9	295.9	16.5	577.5	53.3	157.2	818.6
Tonic Beef S. & D.—Sharp & Dohme	12.91	3.40	81.6	2.36	48.4	130.0	12.0	420.0	13.0	55.0	1300.0
Tonic Beef S. & D.—Sharp & Dohme	12.63	3.28	78.7	2.22	45.5	124.2	13.0	455.0	12.4	57.9	1234.4
Liquid Peptone—Stevenson & Jester Company	.44	1.81	43.4	0.55	11.3	54.7	12.0	420.0	9.8	85.4	1506.8
Cow's milk (3.8 per cent. fat)	....	3.50	84.0	4.80	98.4	182.4	...	....	7.3	1429.6	2000.0

* Total calories *per diem* dose includes the calories of alcohol in the liquid medicinal foods and the calories of the fat in milk.

degree as a food even here, not as a tissue builder, but as a saver of fat and carbohydrate material, and in order to give the preparations in question full value as food products, the calories, represented by the alcohol, are credited to each preparation, as are the proteids and carbohydrates. The factor usually recognized for expressing the calorific value of alcohol is 7. By multiplying the number of grams of alcohol present in 500 grams of material by 7, the number of calories varies from 420 to 658.

On looking over the literature and printed matter distributed by some manufacturers, the physician is frequently left under the impression that these preparations contain all the essential constituents necessary for maintaining normal nutrition of the body, as is clearly shown by the following quotation: "Contains sufficient nutritive material to maintain normal nutrition of the body, a valuable food in typhoid fever, pneumonia, tuberculosis, . . . and all the conditions of the system associated with enfeebled digestion and malnutrition."

In order to show the insidiousness of such representations it is only necessary to give the actual food value of the average daily dose (the average amount to be taken for twenty-four hours) recommended by the various manufacturers for their products. The average adult daily dose recommended varies from 50 to 150 c.c. The total available calories per daily dose based on the proteid and carbohydrate bodies varies from 9.8 to 110.5. Adding to these figures the amount of energy represented by the alcohol, in each case, the total available calories varies from 55.0 to 299.5. The number of calories per diem in sickness should not fall much below 1,500 during twenty-four hours.

In order to get a fair conception of the actual food value of these various preparations, it is desirable to make some comparison which can be readily comprehended by every physician. The amount of good milk necessary each twenty-four hours to sustain the vitality of a patient during a serious illness is not less than 64 ounces, or approximately 2,000 c.c. The food value in calories represented by this amount of good milk may be placed at 1,430. This includes not only the proteid and carbohydrate matter, but the fat as well. By comparing this available potential energy with the total energy available in the predigested foods under consideration, it can be readily seen that if a physician depends on the representations made by some of the manufacturers, and feeds his patient accordingly, he is resorting to a starvation diet. The largest num-

ber of available calories, including alcohol, present in any of the recommended daily doses, is less than one-fifth of the number of calories represented by 2,000 c.c. of milk; and the calories represented by the daily dose of the preparation poorest in food products is only one-twenty-fifth of the amount present in 2,000 c.c. of milk. These figures tell their own story.

Making 2,000 c.c. of milk the basis of calculation, and estimating the amount of the various preparations required to yield this number of calories, it is found that the quantity to be administered daily to supply 1,430 calories, including alcohol, varies from 716.2 to 1,506.2 c.c. In many cases the amount of alcohol exhibited by these quantities would keep the patient in an alcoholic stupor continually. The cost necessary to supply this energy varies from $1.48 down to $3.39. Compare these prices with the cost of two quarts of milk. Is farther comment necessary?

It is urged in justification of the use of preparations of this class that they contain constituents not found in our ordinary foods and in a more perfectly assimilable condition. As pointed out above, these so-called predigested foods contain no fats; the carbohydrates in them are the ordinary sugars present in our common foods, while the proteins belong to the peptone or albumose class. It is for these latter that the greatest claims are made, but even here no value can be pointed out not found in whey, peptonized full milk or peptonized skimmed milk.

There is likewise another point of considerable importance to consider in this connection. The terms *peptone* and *albumose* include bodies of very uncertain composition, and their suitableness as food substances depends largely on how they are prepared. Animal experiments have shown that nitrogen equilibrium may be maintained, for a time at least, by use of enzymic hydrolytic products of the proteins, even where the hydrolysis has been carried far beyond the so-called peptone stage, but it appears to be likewise true that the mixtures secured by acid or high temperature steam hydrolysis have no such value. Some of these, indeed, may exhibit a toxic behavior. This is true in particular of some of the commercial varieties of peptone, and until more is known of the source of the bodies of protein character employed in the make-up of these "predigested" mixtures it is unwise to assume anything concerning the food value of the nitrogen compounds found in them by analysis or even to dignify them by the name of foods.

Your subcommittee makes the following recommendations:

1. No liquid medicinal or predigested food shall be approved by the Council which contains less nutritive value, exclusive of alcohol and glycerin, than milk.

2. At least one-fourth of the nutritive value of the food, exclusive of alcohol and glycerin, shall reside in the nitrogenous matter.

3. The label shall bear a statement whether the peptones and proteoses are produced by enzymes or otherwise.

4. No package or advertising matter of any character shall bear representations which would lead the physician to believe that a food contains more nutrients than it actually does, or that it alone can sustain life for a limited period, if the dose advised contains less than 100 calories, exclusive of alcohol and glycerol, per diem dose.

5. Solid or partially evaporated products shall conform to the above standards when calculated to the water content of milk, viz., 88 per cent.

OXYCHLORINE.

Report of the Council on Pharmacy and Chemistry.

(From The Journal A. M. A., July 6, 1907, 54.)

The following report on Oxychlorine has been submitted to the Council by the subcommittee to which it was assigned:

To the Council on Pharmacy and Chemistry:—Your subcommittee submits the following report: The Oxychlorine Chemical Company, 1326 Wabash Avenue, Chicago, states in its advertising literature that:

"Chemically, Oxychlorine is the tetraborate of sodium and potassium combined with oxychlorid of boron, thus: $6(NaKB_4O_7)BOCl_3$."

Analysis of Oxychlorine showed:

Potassium	12.26 per cent.
Sodium	8.20 per cent.
Chloric acid—CLO_3	25.32 per cent.
Nitric acid—NO_3	21.70 per cent.
Boric acid anhydrid—B_2O_3	18.63 per cent.
Water, calculated	13.29 per cent.

Thus, Oxychlorine is not a definite chemical substance of the composition claimed, but instead is a mixture of alkali chlorate and nitrate with boric acid. Assuming that the chlorate is present as potassium chlorate and the nitrate as sodium nitrate, the analysis above quoted corresponds to a mixture approximately as follows:

Potassium chlorate	37.19
Sodium nitrate	29.76
Sodium and potassium tetraborate	2.18
Boric acid	30.52
Undetermined	0.35
	100 00

Your committee recommends that Oxychlorine be not approved and that this report be published.

The report of the subcommittee was adopted by the Council, and in acordance with the recommendation is published herewith. W. A. PUCKNER, Secretary.

In commenting on the above report it is hardly necessary to call attention to the palpable untruthfulness of the furnished formula, or to its lack of correspondence with the real composition of the preparation, to the imposing claims made by its pseudo-scientific exploiters, or to the absurdities, from a chemical standpoint, of the statements made in their literature. These features are more or less common to all nostrums. The physician who prescribes or uses Oxychlorine under the impression that he is getting a definite and unique chemical compound described as tetraborate of sodium and potassium combined with oxychlorid of boron is, according to our chemists, getting simply a mixture of potassium chlorate, sodium nitrate (or, perhaps, sodium chlorate and potassium nitrate), and boric acid in about equal amounts. More than one-third of this mixture is potassium (or sodium) chlorate, a drug by no means harmless.

In order that there may be no suspicion of unfairness to the promoters of this preparation, we quote from one of the advertising circulars sent out by the Oxychlorine Company:

"Oxychlorine owes it recognition as a therapeutic agent to its six principal qualities:

"1. It will oxygenate the blood at the seat of application, maintain nutrition and heal an uninfected solution of continuity of first intention without scar formation.

"2. It will disorganize all pus and ferment-producing micro-organisms, their toxins, ferments and ptomains.

"3. It will restore an inflamed mucous membrane to its normal condition, except where the membrane is sclerosed or atrophied.

"4. It will destroy pathogenic micro-organism and their toxins in the blood current.

"5. It will stimulate the blood to absorb more oxygen in the lungs that it at the time carries. [We do not know what this means; perhaps the Oxychlorine Company does.]

"6. It is absolutely harmless to the tissues and will not destroy a living cell."

Surely these people must have access to physiologic and chemical authorities not found in modern medical libraries, or else their esoteric researches into the mysteries of life must have carried them far beyond the ken of our most advanced workers along these lines. The scientific world would receive with great interest information as to how a mixture of potassium chlorate, sodium nitrate and boric acid oxygenates

blood, maintains nutrition and causes healing without scar formation. A mixture which will destroy micro-organisms and yet will not destroy a living cell certainly shows a fine sense of selection and discrimination not heretofore expected of a combination of chemicals or of a chemical compound. How like the wonderful elixir of medieval times, which was to the Christian a tonic and to the heathen a poison.

Here is another claim made for this nostrum:

"Two or three rectal injections of a one to two per cent. solution of Oxychlorine and ten grain doses given six to eight times per day is the best and most reliable treatment for typhoid fever."

If eighty grains of Oxychlorine contain thirty grains of potassium chlorate, three rectal injections each consisting of one pint of 2 per cent. solution, would contain approximately 160 grains of potassium chlorate. Such an injection might prove decidedly dangerous, especially when used by one ignorant of its true composition. However, the physician, not the promoters, bears the responsibility.

Oxychlorine sells at $3.50 a pound; the ingredients can be obtained for about 44 cents a pound. Perhaps the margin of profit is intended as a reward due the promoters for the profound physiologic discoveries announced in their reading matter.

PANKREON.

Report by the Council on Pharmacy and Chemistry, with Comments.

(From The Journal A. M. A., April 18, 1908.)

Pankreon, manufactured by the *Chemische Fabrik Rhenania, A.-G., Aachen*, Germany, is sold in the United States by Merck & Co., New York. It is described as a combination of pancreatin with tannic acid. While pancreatin, when administered as such, is destroyed by the action of the gastric juice before it reaches the intestinal canal in which it exerts its specific action, pankreon, it is claimed, is not affected by the gastric fluid, but dissolves in the alkaline intestinal fluids and rapidly develops the action of the pancreatic ferment. If this were true it would be superior to pancreatin.

Pankreon, having been proposed for inclusion in "New and Non-Official Remedies," was assigned to a subcommittee for report. This subcommittee made experiments to determine whether or not pankreon is unaffected by peptic digestion as claimed. The result of the investigations indicated that the compound is promptly digested by pepsin in acid solution, and

hence would be rendered inert before it could reach the alkaline intestinal fluid. The subcommittee recommended that its findings be submitted to the manufacturer through the American agent and that, in the meantime, the further consideration of pankreon be postponed. The report having been adopted by the Council, the findings, in accordance with the recommendation, were forwarded by the American agents to the manufacturer. The manufacturer's reply, having been transmitted to the subcommittee, it presented to the Council the following supplemental report:

"The findings of the referee contained in the report were submitted to Merck & Co. In reply Merck & Co. submit the answer of the *Fabrik Rhenania*, which does not show any inclination to consider the objections made to the product by the subcommittee. Merck & Co. can do nothing in the matter. Your referee recommends that the product be refused recognition."

This report was adopted by the Council and publication of the following directed:

Pankreon is a grayish powder, said to be prepared by the action of tannin on pancreatic material, claimed to contain 10 per cent. of tannin. It is recommended in from four to eight-grain doses for pancreatic affections, disturbances of digestion, diarrheas, dysentery, marasmus, colitis, achylia, nervous dyspepsia, gastritis hyperemesis, jaundice, etc. It is said to be a strong tryptolytic, amylolytic and emulsifiant.

It is repeatedy asserted in the advertising literature that pankreon is "unalterable by the gastric juice," that it is capable of passing through the stomach unmodified, and its medicinal virtue is said to depend largely on this fact. Again it is claimed that: "The characteristic difference that is presented in this newer product is its resistance to the ordinary process of digestion, so that the chief objection to the use of fresh pancreatic substance—which was that it was so readily digested in the stomach—has been largely done away with, and the early conclusions of Langley regarding the destruction of enzymes in the stomach must be modified so far as pankreon is concerned."

Investigation, however, fails to substantiate these statements. On the contrary, it is clearly shown that the enzymic power of pankreon is practically destroyed by subjecting it to the action of an artificial gastric juice. Pankreon was found to digest about forty times its weight of starch in a neutral solution in ten minutes at 40 C. Several mixtures of pankreon and pepsin of proper strength were prepared in a 0.1 per cent. of hydrochloric acid solution and allowed to stand at 40 C. for one-half hour. It was then made faintly alkaline, and various quantities added to different tubes containing 50 c.c. of a 2 per cent. starch paste, and allowed to stand for ten minutes at 40 C. Very little, if any, of the starch was

converted after standing the above time. Various other methods were tried to determine whether or not pepsin and acid affected the enzymic action of pankreon. In every case it was found that the action of pankreon was either destroyed or markedly impaired after being in contact with acid and pepsin for one-half hour or more.

If so marked an effect is produced by the action of artificial gastric juice, it is but reasonable to suppose that the same result would be produced even more promptly and to a more marked degree in the stomach under the influence of the normal gastric fluid. The manufacturer distinctly admits that the enzymic activity of the preparation is diminished by the continued action of a pepsin hydrochloric acid solution, but denies that it is completely destroyed physiologically, in the following sentence: *"Wir geben ja ausdrücklich an, dass bei langdauernder Einwirkung von Pepsin-salzsäure eine Schwächung der Wirkung erfolgt, jedoch ist Vernichtung unter physiolog. Verhältnissen ausgeschlossen."* This statement only tends to substantiate the results obtained in the laboratory. Investigation shows that pankreon does not to any appreciable extent "pass through the stomach unmodified" and that there are good reasons for believing that its enzymic power is completely destroyed by the normal gastric juice. If the product is altered during its passage through the stomach it evidently can not have the physiologic action attributed to it in the advertising matter accompanying the package, nor can it produce many of the therapeutic effects claimed for it by its sponsors.

W. A. PUCKNER, Secretary.

COMMENTS.

The above results serve to emphasize the need of impartial investigation of proprietary products even when put out by reliable manufacturers. This preparation has been largely used in Germany and has been recommended by reputable authors as an agent for replacing the deficient secretion of the pancreas. It has even been proposed to use the administration of pankreon as a means of determining whether the appearance of free fat and undigested muscle fiber in the stools was due to a deficiency in the function of the pancreas or to some other cause. It was reasoned that if the deficiency was due to imperfect functioning of the pancreas it would be supplemented by the action of pankreon and the undigested fat and muscle fiber would disappear from the stools. Consequently it was thought that if pankreon produced a removal of these undigested residues from the feces the evidence was obtained that the abnormal phenomenon had been due to disease of the pancreas.

It is possible that some of the good results attributed to the digestive action of the pankreon were in reality due to the tannin which it contained. This by limiting peristalsis might promote more perfect digestion by giving more time for the natural digestive ferments to act. If this is the method in which it acts it should be an instructive lesson to therapeutists to seek for the possibilities of our well-known remedies without waiting for them to be revealed to us by the investigation of some highly vaunted synthetic which contains their active principle.

PHENOL SODIQUE (Hance Bros. & White).

Report of Examination by Council on Pharmacy and Chemistry and Comments.

(*From The Journal A. M. A., Nov. 9, 1907, 1617.*)

An examination of this article by a subcommittee of the Council on Pharmacy and Chemistry revealed unscrupulous claims which are a positive menace to public health. In view of this the Council has directed the publication of the following comments. W. A. PUCKNER, Secretary.

COMMENTS.

Phenol Sodique was not submitted to the Council by the manufacturers, but was taken up because it is advertised to both physicians and the public. Some advertisements state: "Phenol Sodique was the standard antiseptic thirty years ago. It's the same to-day." If this were true, it would be high time to call a halt; for the unscrupulous claims made for this nostrum, and the effrontery with which they are pushed, are only rivaled by those of the most shameless "patent medicines."

The firm of Hance Bros. & White poses as a reputable pharmaceutical manufacturing house, but how it can reconcile this position with the methods of exploiting this product passes all understanding. In the original package of Phenol Sodique (the latest was purchased on June 20, 1907), there are little booklets and a folder describing the marvelous properties of the nostrum. The booklets do not refer to Phenol Sodique, but they are very instructive. They are entitled: "Dyspepsia," "Worm News," and "Catarrh," advertising "Dyspepsia Stop"—some form of dyspepsia tablets, a remedy for round worms, and "Catarrh Stop," apparently some mild antiseptic tablets. These booklets are addressed frankly to the laity, although recourse to a physician is, generously, advised if the patient does not respond to treatment! The

folly of prescribing "original packages" which contain popular literature has been so often emphasized that further comment seems superfluous. The following from "Catarrh," however, throws an interesting sidelight on the scientific status of Hance Bros. & White:

> "Catarrh is due to a minute insect in the inner lining membrane of the nose. This insect multiplies rapidly, and, unless checked and destroyed, will produce the worst results."

To return, however, to Phenol Sodique: The folder is also evidently intended for the lay public rather than for physicians; at least, if we are to credit Hance Bros. & White with any intelligence whatsoever. It is headed: "Montyon Prize of Encouragement, Awarded by the Institute of France, 1861." This is rather ancient, but what follows indicates that a little restraint would have been better than encouragement. The circular is a compact treatise on self-medication—apparently all that is necessary to retain or regain health is the use of Phenol Sodique, externally and internally. The following conditions are among those specifically named as amenable to this remedy: Smallpox, measles, scarlatina, erysipelas, puerperal fever, typhoid fever, cholera, diarrhea, cramps, burns and scalds, bites, cuts and wounds, excoriations, chilblains, chaps, sore throat, scratches, catarrh, tetter, sunburn, swollen veins, ulcers, hemorrhages, bruises, piles, gangrene, carbuncle, itching, insect stings, ivy poison, cold in the head, bunions, inflamed eyes, eczema, ringworm, rheumatism, pains, toothache, seat worms, etc.—besides numerous diseases of animals.

No antiseptic, whatever its composition, could by any possibility accomplish anything like what is claimed for Phenol Sodique, so that the composition of the article is really of little importance. This is evidently appreciated by the manufacturers, for they have kept the composition a profound secret, except in so far as it is implied in the name. An inquiry addressed to Hance Bros. & White, under date of April 27, 1907, six months ago, has remained unanswered. The Council, therefore, directed an analysis of Phenol Sodique. This was carried out at the chemical laboratory of the American Medical Association, and a check analysis was made by an independent firm of chemists.

This shows that Phenol-Sodique contains something like 0.5 or 0.66 per cent. of phenols, dissolved in about 0.75 per cent. of sodium hydroxid. In other words, it appears to be essentially a very dilute alkaline solution of some impure coal-tar product, presumably of crude carbolic acid. The analysis could not profitably be carried further, because the amount of the antiseptic agent is so very small.

The consideration of this analysis, in connection with the claims made for Phenol Sodique, leaves little doubt as to one reason for the secrecy concerning its composition; although no educated physician could be deceived into believing for a moment that Phenol Sodique could fulfill the promises of its promoters, even if it were "the best antiseptic, hemostatic and disinfectant on the market," as the manufacturers say in their advertisements.

From its composition, it can only have the very moderate and ordinary antiseptic qualities of a dilute phenol or cresol solution, modified only to a very slight extent by the free alkali. According to the manufacturers, however, "Phenol Sodique is a wonderful preparation." Just how wonderful appears from these extracts from the dissertations in the pamphlet which is enclosed in the package. Note particularly the matter which we have put in capitals:

Catarrh, Old Colds, etc.: Drink every morning and evening a glass of water containing ten to thirty drops of Phenol Sodique. . . .

"*SMALLPOX: TO PREVENT ATTACK* take internally three or four times a day, fifteen or twenty drops of Phenol Sodique in one tablespoonful of sugar and water. . . .

"*Measles, Scarlatina and Erysipelas:* Same treatment as for Smallpox.

"*TYPHOID FEVER: TO PREVENT ATTACK* take internally three or four times a day, fifteen or twenty drops of Phenol Sodique.

"*CHOLERA: TO PREVENT* spread sawdust or sand wet with Phenol Sodique, in apartments.

"*THE VERY BEST PRECAUTION* is to drink, morning and evening, a glass of water containing from fifteen to thirty drops of Phenol Sodique. . . .

" . . . *Premonitory Diarrhea:* . . . Drink a teaspoonful of Phenol Sodique diluted in an ounce of water. . . . "

This is the kind of therapeutics and prophylaxis taught to the medical profession by their self-appointed instructors, the proprietors!

But this matter has a serious, as well as a ludicrous, side: What is the proper epithet to apply to those who, knowingly and intentionally, impress on the ignorant lay public that one can with impunity expose himself to smallpox, cholera, typhoid or scarlet fever, or measles, by taking a few drops of very dilute carbolic acid, or by sprinkling a little on sawdust? What must be the consequences to those who trust in these assurances? And what should be the lawful penalty for those

whose blunted moral instincts permit them wilfully to endanger the lives of others for a little financial gain? It would be interesting to know the real opinion of the responsible members of the firm of Hance Bros. & White on these questions.

The Montyon Prize was awarded by the French Institute in 1861—forty-six years ago—how many victims a year?

SULPHO-LYTHIN.

(*Abstracted from The Journal A. M. A., Dec. 8, 1906, 1931.*)

The following report was submitted to the Council by the subcommittee which examined Sulpho-Lythin:

To the Council on Pharmacy and Chemistry:—The following report on Sulpho-Lythin is herewith submitted:

Sulpho-Lythin is sold by the Laine Chemical Company, New York. In the literature sent to physicians it is said: "This product, the sulpho-phosphite of sodium and lithium (non-effervescent), is entirely new and is unique in its action."

Chemical analysis of a specimen of Sulpho-Lythin purchased in the open market indicated its composition to be:

Sodium sulphate, anhydrous	10.51
Disodium hydrogen phosphate, anhydrous	56.67
Sodium thiosulphate, anhydrous	20.78
Sodium chlorid	5.98
Lithium, as citrate	3.12
Sulphur, free	0.16
Moisture	1.53
Loss	1.25

The examination, therefore, shows that Sulpho-Lythin is a mixture consisting mainly of sodium sulphate and sodium phosphate and sodium thiosulphate. The statement that it is a "sulpho-phosphite of sodium and lithium," therefore, is not correct, and a statement that "it is entirely new and unique in its action" appears unwarranted and misleading. It is, therefore, recommended that the preparation be refused recognition. It is also recommended that an article be prepared for publication calling attention to the exaggerated claims made for Sulpho-Lythin.

The recommendations of the subcommittee were adopted by the Council and in accordance therewith the report is published, with the following comments.

W. A. PUCKNER, Secretary.

According to the above analysis, this wonderful new remedy, "which surgeons of this city (New York) have used . . . after laparotomies . . . with excellent results" is simply a mixture of well-known salts obtainable in any drug store, and which any third-year student knows how to prescribe and even to compound.

Sodium sulphate in the crystallized form is commonly known as Glauber's salts; disodium hydrogen phosphate is ordinary, common, every-day sodium phosphate. We presume every physician knows what Glauber's salts are good for, and that phosphate of soda is an excellent saline laxative, although it has not been known before that it possesses antiseptic properties. Sodium thiosulphate is familiar to physicians as sodium hyposulphite, and to photographers as "hypo," while every one knows, of course, that sodium chlorid is common salt.

Examinations and analysis of various specimens of this product demonstrated that its composition is not always the same. Thus analysis of one specimen indicated only 5.12 per cent. of anhydrous sodium sulphate instead of more than 10 per cent. in the first specimen; also this specimen contained 10.46 per cent. of water instead of 1.53 per cent. Apparently, therefore, the manufacturers are not competent to prepare a product of constant composition. Or is it simply that they do not care to do so and believe that anything is good enough for the doctor? That the first is the more probable cause is indicated by the report of one chemist which calls attention to the fact that different portions taken from the same bottle differed widely in composition. The following is taken from his report:

> The analysis shows Sulpho-Lythin is not a definite chemical compound, but a mixture of sodium phosphate, sodium thiosulphate and some compound of lithium. That it is only a mixture is shown by the fact that in the examination for thiosulphate when the substance was examined without first being thoroughly mixed, results were obtained varying from approximately 27 per cent. in the first portions taken from a bottle, to 42 per cent. in the last portions of the same bottle.

As a further sign of the ignorance and incompetence of the promoters of this nostrum it is interesting to note that the label on one of the bottles purchased states that it is a "sulphophosphate" instead of a sulphophosphite. Apparently the gentlemen who presume to instruct us in regard to this remedy do not know the difference between a phosphite and a phosphate. Or do they know the difference, but feel perfectly safe that in our own ignorance we will not note such contradictions?

The attempt to make a "true hepatic stimulant, antizymotic and uric acid eliminant," all in one, out of simple laxative salts, is surely bold enough to excite one's admiration, even if it does not inspire one's faith. Certainly those who have the brazen assurance to offer a combination to physicians

as a new and valuable remedy must have a pretty high opinion of the intelligence and of the credulity of that profession. Some occult and wonderful skill must be used in mixing Glauber's salts, phosphate of soda, etc., to produce a medicine which will do the wonderful things claimed for Sulpho-Lythin by its promoters.

WONDERFUL VIRTUES OF THE NEW COMPOUND.

According to one circular, this simple mixture of salts is a great remedy for:

> Disorders of the Liver, Inflammation of the Gall Bladder and Bile Ducts, Acute Congestion of the Liver, Gall Stones, Intestinal Indigestion, Chronic Constipation, Rheumatic and Gouty Conditions, Diabetes, Nephritis, Acute or Chronic, Bright's Disease, Genito-Urinary Diseases, Miasmatic (Malarial) Fevers, Skin Eruptions, Corpulency or Obesity, Convalescence from Alcoholism and the Treatment of Drug Habits.

In another circular we read:

> "It is not itself a cathartic or even a laxative, but catharsis results from its administration because of the bile that is poured out into the intestinal tract, and the sulphur liberated by its decomposition."
>
> "Sulpho-Lythin is absorbed and passes into the circulation, where it exerts an antifermentative and antitoxic action, restoring and preserving normal alkalinity of the blood and preventing or counteracting septic processes throughout the body. It is also a *solvent for uric acid.*"
>
> "Sulpho-Lythin acts also on the skin, stimulating the perspiratory glands and removing discolorations and eruptions on its surface."
>
> "Sulpho-Lythin is particularly effective in all forms of derangements of the liver, because it is one of the very few hepatic stimulants, which increases the secretion of bile and causes it to be discharged into the bowels."
>
> "In the preparation of patients for surgical operations, Sulpho-Lythin is especially valuable because it restores and preserves the normal functional activity of the liver, bowels, kidneys and skin, and places the patient in the best possible condition to withstand the shock of the operation and to recuperate therefrom. . . . The length of time required for efficient preparation will depend on the character of the operation and the condition of the individual patients when they come under observation. As a rule, Sulpho-Lythin should be administered for one, two or three weeks prior to the operation to obtain the best result."

What need for universities to erect laboratories for the prosecution of laborious animal experiments in search of biliary stimulants when the discovery has already been made in a New York office building?

Our distinguished surgeons are no doubt proud to honor American commercial enterprise by sitting at the feet of progressive "chemical" (?) companies to receive instruction regarding the manner in which they should prepare their patients for operation.

NOT ADVERTISED TO THE PUBLIC.

This nostrum is not advertised to the public. Oh, no! It is put up solely for physicians' use (*sic*). But the physician is repeatedly advised in the advertisements to "order always an original (6 ounce) bottle to prevent substitution." 'Twas ever thus. The physician prescribes as ordered and then wonders why his patients buy "patent medicines." The patient, in this instance, gets plenty of advice as to the use to which he can put the nostrum. "An original (6 ounce) bottle to prevent substitution" has labels on three sides of the bottle.

On one side the patient reads that Sulpho-Lythin is a "true hepatic stimulant, antizymotic, uric acid solvent and eliminant."

On side No. 2 he learns that it is indicated in: "Disorders of the liver, intestinal indigestion, chronic constipation, inflammations of the gall bladder and bile ducts, gallstones, jaundice, rheumatic and gouty conditions, uric acid diathesis, diabetes, albuminuria, malarial fevers, skin eruptions, corpulency, preparation of patients for surgical operations and convalescence therefrom, convalescence from alcoholism and drug habits."

Label No. 3 tells the patient how to use it.

In the language of a wise man, "What fools we mortals be." We not only allow adventurers to humbug us, but we permit ourselves to be used as agents to humbug the trusting layman.

THE EXPLOITERS OF THE STUFF.

And now, who and what is this Laine Chemical Company? Is it a regular pharmaceutical or chemical company engaged in the business of manufacturing drugs and chemicals? If so, where is its manufacturing establishment and its laboratory? One of the phases connected with this proprietary medicine business is that many of these preparations are foisted on our profession by promoters who have gone into the business as they would go into the business of humbugging people with a "patent medicine," into a scheme for exploiting stock in a salted mine, or into any other get-rich-quick scheme. This is not a reckless statement on our part; we have plenty of evidence to prove it, and we believe that physicians can verify it if they will make a little inquiry into the standing and character of some of the so-called "chemical" or "pharmacal"

"companies" whose preparations they have been deluded into prescribing. We can not swear whether or not the Laine Chemical Company is of this character. We have been trying to find out. From one source we learn that the "business was started nearly two years ago for the purpose of putting up a proprietary remedy, but nothing was known in the trade as to the individuals composing the firm. After being in business for some time the firm was incorporated, the certificate of incorporation being dated Albany, N. Y., Jan. 29, 1906. The names given in the certificate were A. C. Aubrey, W. L. Clark and W. L. Sohl." Our informant said that apparently W. L. Sohl was the secretary and manager, but that nothing definite could be learned.

Not having received any satisfactory information from the sources tried, we asked Dr. Robert A. Hatcher, professor of pharmacology in Cornell University Medical School, to make a personal investigation and to learn, if possible, what kind of a concern it is. Under date of July 25 Professor Hatcher reports that:

> He went to the office of the Laine Chemical Co., Room 25, 83 Fulton St., an office building, and found the company domiciled in a small room, in which were three girls typewriting. There were also advertising circulars, a number of bottles in a case, and a few cases marked for shipment. There was also present a man, apparently about 35 years of age, in charge. Professor Hatcher could get no information whatever from him nor from any other source that was satisfactory. From what he was able to find out, however, it would seem that the company is made up of men who know nothing whatever about pharmacy, chemistry or medicine; that the business of this "chemical company" is selling to physicians the nostrum sulpholythin.

After reviewing Professor Hatcher's report the Laine Chemical Company was requested to furnish the following information:

"1. Who are the members of the firm, or corporation, known as the Laine Chemical Co.?

"2. Is either of the members of this firm, or corporation, a registered pharmacist, a chemist, or a physician?

"3. What, if any, other preparation does the Laine Chemical Co. manufacture or sell?

"4. Is the 'Sulpho-Lythin' made by the Laine Chemical Co.? If so, where is the laboratory or factory? Please give street and number.

"5. Is 'Sulpho-Lythin' a definite chemical compound, or a mixture? If a chemical compound, what is its chemical formula? If a mixture, what are the ingredients, and

the proportion of each ingredient to a given amount of the produce?"

When we wrote the above letter we were aware that it was a presumptuous thing to do, but nevertheless the information asked for would be willingly furnished by any legitimate pharmaceutical house, and, for that matter, by any business concern, no matter what the business might be. Some might object to furnishing the names of all persons connected financially with the firm, but none would object to giving the names of those in direct and responsible charge. However, in a few days the following letter was received:

"NEW YORK, Aug. 21, 1906.

"*Dear Doctor:*—The officers of our company are at present absent on their vacation and immediately on their return we will send you a full reply to your communication under date of August 17.

"Trusting that this is satisfactory, we are, yours very truly, LAINE CHEMICAL CO."

After waiting nearly three months—a rather long vacation for the officers to take—the following communication was received:

"NEW YORK, Nov. 9, 1906.

"*Dear Doctor:*—Reverting to your communication of August 17, receipt of which was acknowledged under date of August 21, we will state that the Laine Chemical Co. is a corporation, incorporated under the laws of the State of New York; that Sulpho-Lythin, exploited to the medical profession exclusively, is the only product now manufactured by the Laine Chemical Co.; that Sulpho-Lythin is manufactured under the immediate supervision of the Laine Chemical Co. by a regular graduate in pharmacy, and that the active constituents of Sulpho-Lythin are combined in a Sulpho-Phosphate of Lithium and Sodium. Very truly yours, LAINE CHEMICAL CO."

It looks as though each of the above letters is signed by the same individual, and the writing bears a similarity to that of W. S. Sohl; at least, his signatures to the letters which were written to physicians and druggists and forwarded by them to us, bear an extremely marked similarity to the writing of one who signed the letters quoted, all of which make it appear that "the officers of our company" were taking their vacation in the City of New York. It will be noted that the important questions in our letter of August 17 were not answered.

Possibly we ought to apologize for devoting so much space to such an insignificant nostrum. If any apology is necessary, we offer the following:

Sulpho-Lythin literature carries testimonials written by men of influence and standing in the profession—not many, happily—and it is advertised in medical journals supported—only in part, it must be admitted—by educated and thoughtful members of our profession.

Sulpho-Lythin is a sample of hundreds—shall we say thousands?—of so-called "ethical proprietaries" that are being used by physicians; it is no worse and no better than most of the others. It illustrates beautifully various phases of the "ethical proprietary." They are not made under responsible and intelligent supervision. The vast majority of them are made, or at least sold (for not a few have their preparations made for them by others, as do many of the "patent medicine" vendors), by men who have absolutely no knowledge of drugs or of medicine, but who not only presume to sell medicines of their own compoundings, but also to arrogate to themselves the right to tell physicians how to treat their patients, advice which every physician with any self-respect would scorn to accept, did he know who gave it.

Most of these preparations are simple mixtures of well-known drugs that physicians are prescribing every day, and which require as much skill in compounding as can be found in a drug-store bottle washer.

But granting that some of these mixtures may possess good qualities and be convenient, their secret nature and the irresponsiblity of their makers give the physician no guarantee that their composition will remain uniform, and that the materials used will be of good quality. If these preparations are to be used, it is evident that some control is necessary by some authority acting in the interests of the medical profession. It ought to be evident by this time that the Council on Pharmacy and Chemistry had an important mission to perform, and that such a body was created none too soon.

TYREE'S ANTISEPTIC POWDER.

Report of the Council on Pharmacy and Chemistry and Some Comments Thereon.

(*From The Journal A. M. A., Oct. 20, 1906, 1316.*)

Tyree's antiseptic powder was assigned for examination to a subcommittee of the Council, which made the following report:

To the Council on Pharmacy and Chemistry:—Your subcommittee, to whom was assigned Tyree's Pulv. Antiseptic Comp., marketed by J. S. Tyree, Washington, D. C., reports as follows:

The label on the package states: "This preparation is a scientific combination of borate of sodium, alumen, carbolic acid, glycerin and the crystallized principles of thyme, eucalyptus, gaultheria and mentha, in the form of a powder," etc.

The statement that the powder contains the crystalline principles of thyme, eucalyptus, gaultheria and mentha is vague and misleading, since the chief medical constituents of eucalyptus and gaultheria are liquids, but it tends to convey the impression that the powder contains the essential constituents of these drugs, namely, thymol, oil of eucalyptus or eucalyptol, oil of wintergreen, or methyl salicylate, and menthol.

The literature supplied to physicians *claims* its composition to be: "Parts, sod. bor., 50; alumen, 50; ac. carbol., 5; glycerin, 5; the cryst. principles of thyme, 5; eucalyptus, 5; gaultheria, 5, and mentha, 5."

The composition, therefore, might be expressed as follows:

Sodium borate (borax)	50 parts, or	38.46 per cent.
Alum	50 parts, or	38.46 per cent.
Phenol (carbolic acid)	5 parts, or	3.85 per cent.
Glycerin	5 parts, or	3.85 per cent.
Thymol	5 parts, or	3.85 per cent.
Oil of eucalyptus or eucalyptol	5 parts, or	3.85 per cent.
Oil of gaultheria (or methyl salicylate)	5 parts, or	3.85 per cent.
Menthol	5 parts, or	3.85 per cent.

Analysis of specimens purchased from different sources in the open market were made under our direction. The reports of the chemists show that Tyree's antiseptic powder contains no borax, or mere traces only, and that it contains no alum, or mere traces only. Instead, the analyses show that boric acid and zinc sulphate are the essential constituents. The amounts of carbolic acid, thymol, menthol, etc., contained in the powder, if present, were far below the quantities indicated by the formula. The presence of glycerin could not be demonstrated, and, if present, the amount must be very small.

One chemist reports:

> The result of analysis shows that different samples differ slightly in composition, but that the following indicates the average composition of the product:
>
> | | Per cent. |
> |---|---|
> | Zinc sulphate, anhydrous | 15.56 |
> | Boric acid | 81.26 |
> | Volatile matter at 100° C. for four hours | 0.45 |
>
> The undetermined portion consists of salicylic acid, carbolic acid, menthol and eucalyptol; possibly other antiseptic agents may be present in very minute quantities.

From the above findings we conclude that Tyree's antiseptic powder is a mixture of boric acid and dried zinc sulphate and antiseptic bodies, such as menthol, salicylic acid and carbolic acid, eucalyptol, etc. From this it can be readily seen that the label which is supposed to set

forth the composition of Tyree's antiseptic powder is not in accord with the facts. The powder does not contain either borate of sodium or alum, and the presence of glycerin could not be established. The antiseptic agents, exclusive of the boric acid, are present only in small amounts.

The report of another analysis concludes as follows:

It evidently contains less than the amount stated of the principles of thyme, eucalyptus, wintergreen and mint. It also contains a very small amount indeed of carbolic acid, much less than that stated. We have been unable to identify certainly the presence of glycerin, and it is doubtful if it be present.

From the result of the analysis we feel confident that the preparation is to all intents and purposes a mixture of boric acid and sulphate of zinc.

The carbolic acid, thyme, eucalyptus, wintergreen, etc., if present, are present only in sufficient amount to give the compound a satisfactory odor.

In view of the fact that J. S. Tyree has given wide publicity to a formula which the preceding report has shown to be a deliberate misrepresentation of facts, it is recommended that the article be refused recognition by the Council on Pharmacy and Chemistry, and that this report be published in THE JOURNAL of the American Medical Association.

The recommendation of the subcommittee was adopted by the Council in accordance with which the report is published.

W. A. PUCKNER, Secretary.

Mr. Tyree, in a letter to Dr. Simmons (which he states he writes at the request of Dr. Kebler, of the Drug Laboratory of the Department of Agriculture, though he is under no moral or financial obligation to do so), says that it has been his intention to inform the medical profession of his reasons for changing the formula of Tyree's Antiseptic Powder from an alum and borax base to a boracic acid and zinc base. He states that this change was made at the suggestion of prominent physicians connected with hospital clinics on nose and throat, venereal and other conditions and that he has had in contemplation the omission from the label of the various conditions to which the preparation is applicable.

Mr. Tyree, it will be seen, assumes the right to sell to physicians a preparation with a descriptive formula which he acknowledges is false, and that he presumes to use his own pleasure as to the time when he will inform them of its true composition.

Mr. Tyree does not state when he changed the formula. We do not know whether it was a year ago, five years ago or ten years ago, but we do know that the package which was

used in making the first analysis was purchased as early as last February, and the first chemist's report was submitted to the Council March 5, 1906. On April 4 Mr. Tyree was notified by the Council that the composition of "Tyree's Antiseptic Powder" did not correspond with the formula published by him.

Whether or not Mr. Tyree is justified in offering our profession a preparation as composed chiefly of borax and alum when in reality it is chiefly composed of boric acid and zinc sulphate, we leave physicians to judge.

Discrepancies Between Facts and Claims—Unfortunate Attempts of Mr. Tyree at Explanation.

(From The Journal A. M. A., May 18, 1907, 1692.)

A report from the Council on Pharmacy and Chemistry on Tyree's Antiseptic Powder appeared in THE JOURNAL, Oct. 20, 1906. This showed that the preparation, advertised as a "scientific combination of borate of sodium, alumen, carbolic acid, glycerin and the crystallized principles of thyme, eucalyptus, gaultheria and mentha, in the form of a powder," was essentially a mixture of boric acid and sulphate of zinc—approximately four-fifths of the former to one-fifth of the latter. "The carbolic acid, thyme, eucalyptus, wintergreen, etc., if present, are present only in sufficient amount to give the compound a satisfactory odor." As will be remembered, in the correspondence published at that time, Mr. Tyree attempted to explain the discrepancies between his statements and the proven facts by intimating that he had recently changed the formula, and that it was his intention "on or about the first of February to state to the medical profession his reasons for changing the formula," and that the change had been made "a short time ago, at the suggestion of several prominent gentlemen." Since that time, through circulars and other advertisements, Mr. Tyree has attempted to explain the matter in various ways. In his latest circular letter he seems to make a deliberate attempt to mislead our profession and to misrepresent facts to a degree that makes it almost impossible to believe that the circular came from a man who claims to be honorable.

First, however, we shall take this opportunity to publish some matter which we have had in reserve since the first exposé was made last October. When it was realized that Mr. Tyree intended to defend himself by claiming that a change had recently been made in the powder, we took occasion to try to secure some of the preparation that had been on the market for a long time. In this we succeeded very

well. From a Chicago druggist one package was bought which had been in the store at least since July, 1902—how much longer is not known. The druggist from whom the powder was obtained bought the drug store in July, 1902, and this powder was on hand at that time, none having been bought since. This particular powder was analyzed by a chemist, who found the composition practically the same as that given in the Council's report, this chemist estimating that it contained approximately 81 per cent. boric acid and 14 per cent. anhydrous zinc sulphate. Bearing in mind that for at least four years and ten months Tyree's Powder has been essentially the same as it is to-day, this letter is very interesting: (The comments in brackets are, of course, ours.)

"J. S. TYREE,
"CHEMIST,
"WASHINGTON, D. C.

"April 16, 1907.

"Dr. ——— ———,
"———————,

"*My Dear Sir:*—Doctors and medical publications of extreme and prejudicial minds often hold and express opinions in honorable faith, but like all critics, they are not always familiar with the conditions composing their opinions, and are often given to expressing them without complete knowledge of the true motives and facts in the case.

"If you will read an article that appeared in one of the medical weeklies some time ago [THE JOURNAL of the American Medical Association, of course] and which has been copied by several of its offsprings, [not many we regret to say] relating to Tyree's Antiseptic Powder, you will see that I had previously informed the editor as well as his council of investigators, that at the suggestion of prominent physicians, extensive clinical experimenting [sic] were being made with some slight [! ! !] changes in my powder, the object being to develop and extend its usefulness in new lines. [It had already been recommended for about everything.[1]] and at the same time make it more acceptable to the general run of the profession. I also notified this editor that these investigations

1. From the circular accompanying a package bought over a year ago, we find the powder recommended for the following conditions: "For Leucorrhea, Gonorrhea, Vaginitis, Pruritus, Ulcerated conditions of the mucous membrane. . . . Scrofulous, Syphilitic and Varicose Ulcers, . . . for Spraying the Nose and Throat, . . . for immediate deodorizing and disinfecting . . . for prickly heat, poison oak, squamous eczema and other conditions of similar nature. . . . As a deodorant and prophylactic in dental work, . . . for disinfecting offensive cavities, . . . for profuse and offensive perspiration, swelling, soreness and burning of the body and feet. . . . As a delightful toilet preparation after the bath and shaving."

would not be completed until the first of the present year, after which time these slight [! ! !] changes in the formula of Tyree's Powder would be announced. [It is now the middle of May; when and where were the changes announced?[2]]

"There is nothing new, startling or dangerous in such changes in formulas. The Pharmacopeias and national books of authority are continuously improving their formulas. It is the same with every preparation on the market. [Mr. Tyree, as a nostrum maker, is in a position to know. His plea evidently is: "I am no worse than others."] The apparent difficulty in my case is caused by my exceptional frankness ["exceptional frankness" is good under the circumstances] with the profession in telling them [when and where?] about this improvement before I was ready to announce full details and particulars, or place my improved [sic] powder on the market. Yours very truly,

"J. S. TYREE."

For years Mr. Tyree has been misleading physicians by making false statements regarding the composition of his powder and regarding its value as a therapeutic agent. When exposed he tries to defend himself and his business by statements and excuses that are worthy of a schoolboy trying to get out of a bad scrape. We would respectfully suggest to him that he either take his wonderful powder off the market, or—which would probably amount to the same thing—tell the truth, and the whole truth, about it.

URON AND THIALION.

Report of the Council on Pharmacy and Chemistry.

(From The Journal A. M. A., Nov. 3, 1906, 1500.)

The following reports were submitted to the Council by subcommittees which examined Uron (Uron Chemical Company) and Thialion (Vass Chemical Company):

To the Council on Pharmacy and Chemistry:—The following report on Uron is herewith submitted:

Uron is sold by the "Uron Chemical Co., Box A, St. Louis, Mo." In the literature distributed to physicians and in advertisements appearing in current medical journals $LiC_{13}H_7N_4O_2$ is given as the chemical formula of Uron.

---

2. Last January the national Food and Drugs Act went into effect; one of its provisions is that the label must not lie. This is not the exact verbiage, but it means the same thing. So, instead of repeating the old false statements, the new label of Tyree's antiseptic powder contains nothing whatever about the composition—the law does not require that it should—unless the preparation contains certain specified drugs. Why is the formula omitted?

According to analyses, this article is not a chemical compound, but is a mixture of lithium benzoate and hexamethylenamin[1] in approximately the following proportions:

Lithium benzoate	58 per cent.
Hexamethylenamin	42 per cent.

It is recommended that Uron be refused recognition and that this report be published.

To the Council on Pharmacy and Chemistry:—We beg leave to report on Thialion as follows:

Thialion is sold by the Vass Chemical Co., Danbury, Conn. In the literature supplied to physicians and in the advertisements in medical journals, Thialion is stated to be "a laxative salt of lithia" with the chemical formula "$3Li_2O.NaO.SO_3.7HO$." Sodio-trilithic anhydrosulphate" is given as a synonym. An elaborate graphic or structural formula is also given.

According to analyses, this preparation is a mixture consisting chiefly of sodium sulphate and sodium citrate with very small amounts of lithium, the average of several estimations indicating the following composition:

Sodium citrate	58.6
Sodium sulphate, anhydrous	26.6
Sodium chlorid	3.3
Lithium citrate, anhydrous	1.8
Water	9.7

Thus, the advertising literature is a deliberate misrepresentation of the facts. It is, therefore, recommended that the preparation be refused recognition, and that this report be published.

The recommendations of the subcommittees were adopted by the Council and in accordance therewith the above reports are published. W. A. PUCKNER, Secretary.

In publishing the above report, the Council is presenting to the medical profession another object lesson, and one that illustrates how easily our profession is being humbugged. There are several things that we may learn from the report on these two nostrums, but at this time we will take up only one phase of the lesson. Many of the scientific chemical compounds and derivatives given us by the German chemists have been distinct advancements and have proved to be valuable additions to our therapeutic agents; further, they were received with so much favor by physicians that they have been profitable for those who made them. It is not strange, therefore, that imitators should appear. One of the first was our old friend, Antikamnia (which was introduced as a "new synthet-

1. We once more remind our readers that hexamethylenamine is the absurdly long but official name for the article that is sold under the proprietary names: Urotropin, Formin, Cystogen, Aminoform, Hexamin, Uritone, etc.

ical" compound). This was followed by Ammonol, Phenalgin, Salacetin, and a host of others having acetanilid as their principal ingredient.

But there are hundreds of other so-called "new chemical" compounds among the "ethical" proprietaries on the market aside from the acetanilid mixtures. These wonderful compounds, by the mysterious union of their ingredients, possess therapeutic properties different from, or more powerful for good than the drugs from which they are made. At least, this is what we are told, and this is what many believe or they would not sell so well.

There is another factor worth noting connected with this subject: When to the claim that the mixture is a "chemical compound" is added a complex chemical formula, it prevents the impertinent question, "What is it?" or isn't the "formula" there, and is not the information given without the asking? Most of us have been so overcome by the display of the chemical knowledge of the nostrum maker that we have been afraid to expose our ignorance by asking for information or explanation. And thus the promoter avoids perplexing questions, which, if answered truthfully, would spell bankruptcy.

URON.

The Uron Chemical Company informs us, concerning Uron, that it has the chemical formula of $LiC_{13}H_7N_4O_2$. Now this formula looks very dignified and scientific to those who are not up in chemistry. To the chemist, however, the formula signifies nothing. A few simple tests reveal the composition of the mixture, and it is surmised that the "formula" is the result of an attempt to combine the formulas of the two ingredients, i. e., $LiC_7H_5O_2$ and $C_6H_{12}N_4$, the addition being faulty.

THIALION.

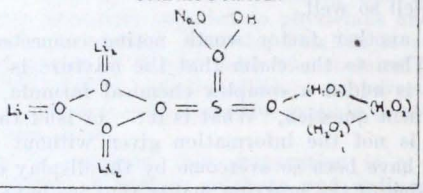
In regard to Thialion, the formula furnished by the Vass Chemical Company is even worse. To a physician who possesses but little knowledge of chemistry, it will seem impressive, and he may absorb the idea that it stands for a preparation that is the result of exhaustive scientific research. To the chemist, this formula will appear as a jumble of symbols and numbers that mean nothing.

It is not worth while to call attention to the simplicity of this simple mixture of ordinary salts, for it is too self-evident. As to the remarkable therapeutic qualities of Thialion, the reader is referred to that ably edited "scientific" periodical, the *Uric Acid Monthly*, and to the mass of "literature" relating to this wonderful remedy.

While there is a ridiculous side to this business, there is also a serious one. Those who have been making money out of us undoubtedly laugh in their sleeves at our gullibility, but to us as members of a presumably learned and intelligent profession, it is not a laughing matter. The whole nostrum business is a shame and a disgrace.

CHEMICAL FORMULA: $3Li_2O.\ NaO,\ SO_3.\ 7HO$ (*Sodio-trilithic anhydrosulphate*).

GRAPHIC FORMULA:



This picturesque "graphic formula" for Thialion appears with many of the advertisements. To most of us it looks formidable, wonderfully and deeply scientific and non-understandable; to a chemist it looks absurd.

VIN MARIANI.

Report by Council on Pharmacy and Chemistry—With Comments Thereon.

(*From The Journal A. M. A., Nov. 26, 1906, 1751.*)

This preparation was assigned to a subcommittee of the Council and the following is an abstract of the report of the committee:

Samples of Vin Mariani and of the literature distributed by the manufacturers were examined.

It appears that the beverage or medicine known as "Vin Mariani" is a preparation of red wine, apparently imported from Bordeaux, and fortified, in this country, by an alcoholic preparation of coca leaves or other parts of the coca plant.

The committee considered first, the character of the red wine as imported. A sample received from the port of New York, March 10, 1905, from Henry Clausel & Co., Bordeaux, and consigned to Mariani & Co., on analysis was found to have the following composition:

Specific gravity		0.9959
Alcohol by volume	per cent.	10.00
Extract	per cent.	2.279
Volatile acids	per cent.	0.0914
Ash	per cent.	0.2801
Reducing sugar		trace.
Pol. direct	degrees	—0.8
Pol. invert.	degrees	—0.7
K_2SO_4	Mg. per liter	0.092

MARIANI WINE

4/- PER BOTTLE. 45/- PER DOZEN.

MARIANI WINE possesses truly remarkable **Sustaining, Stimulating** and invigorating powers. Its success and merits are appreciated by all who have tried it, and numberless are the testimonials received from members of all classes of society and professions suffering from

GENERAL DEBILITY,

DEPRESSION, LASSITUDE, EXHAUSTION AND

WANT OF ENERGY.

As a **restorative** and **stimulant** of the highest order, MARIANI WINE is without rival; its high medicinal value has caused it to be recognised and

RECOMMENDED BY 8,500 PHYSICIANS

Before and After

THE BEST AND SUREST TONIC RESTORATIVE

Delivered free from Wilcox, 49, Haymarket, S.W., or of all Chemists and Stores.

[The above is the first page of a four-page circular accompanying the bottle of Vin Mariana as sold direct to the public in England.]

A sample of Vin Mariani, as bought in the open market in an original package, has also been analyzed and found to have the following composition:

Specific gravity		1.0125
Alcohol by volume	per cent.	16.15
Extract	per cent.	8.602
Ash	per cent.	0.277
Glycerin	per cent.	0.444
Volatile acids	per cent.	0.0747
Tartaric acid	per cent.	0.2400
Alkaloids (coca bases)	per cent.	0.0250
Cane sugar	per cent.	2.35
Reducing sugar	per cent.	3.38

The increased alcoholic strength of Vin Mariani over the Bordeaux wine, from which it is made, as shown by this analysis, doubtless comes from the alcohol extract containing the coca bases, as already stated. Approximately 6 per cent. of sugar is also added to the wine. Judging from the analysis, therefore, Vin Mariani corresponds to a mixture of an alcoholic preparation of coca leaves and ordinary Bordeaux red wine, with the addition of about 6 per cent. of sugar.

Vin Mariani conflicts with Rule 5, which requires that "No article will be admitted or retained, concerning which the manufacturer or his agents make misleading statements as to geographical source, raw material from which made, or method of collection, or preparation," by stating in the advertising literature that: "The United States government, under the Pure Food Law of March 3, 1903, further emphasizes all previous analyses of Vin Mariani by admitting Mariani's wine as absolutely pure and unadulterated."

Whatever may have been the intent of the above statement, its effect is to deceive. The conjunction of the terms "Vin Mariani" and "Mariani's wine" can only be construed as meaning the same thing. Inasmuch as it does not appear that Vin Mariani is imported into this country, it would not have been possible for the United States government to inspect it, and as to the wine obtained from Henry Clausel & Co., from Bordeaux, it is not in any sense Mariani's wine except that of ownership. It is the opinion of the committee that this phrase can only result in deception and the construction of the language strongly favors the supposition that it is intentionally meant to deceive.

This false claim is practically repeated in the other pamphlets published by the Vin Mariani Company, although not always in the same words.

This preparation also conflicts with Rule 6, which states that "No article will be admitted or retained of which the manufacturer or his agents make unwarranted, exaggerated or misleading statements as to therapeutic value," in that the firm's letter-heads have printed on them the following:

"Vin Mariani purifies the blood stream, strengthens the circulation, stimulates muscular fiber and nerve tissue, is a respiratory stimulant, strengthens the heart muscles, and is an emergency food in the absence of all other nutriment. Successfully employed as an adjuvant in anemia, debility, diseases of the chest, nervous troubles, muscular or mental overstrain, neurasthenia, and allied conditions, and in certain cases of protracted convalescence."

The committee believes that Vin Mariana is intended as a beverage rather than as a medicine.

The report concludes:

"The committee recommends, therefore, that Vin Mariani be refused recognition and that this report be published in full or in part."

In accordance with this recommendation the above extract of the report is herewith published.

W. A. PUCKNER, Secretary.

VIN MARIANI MADE IN THIS COUNTRY.

According to the above report, Vin Mariani as imported is simply an ordinary cheap French wine, the preparation sold in this country as Vin Mariani being compounded in this country. Yet the advertising literature, the label on the bottle, etc., state directly or indirectly that it is a French preparation. Until recently—presumably until the vendors realized that the truth regarding this point would come out—the advertisements in medical journals contained an analysis made by a chemist in Paris. The shape of the bottle, the character of the printed matter accompanying the bottle, etc., are evidently intended to convey the impression that it is imported. So far, then, as this point is concerned, Vin Mariani is sold under gross misrepresentations and is a fraud.

ADVERTISED TO THE PUBLIC.

Vin Mariani was at one time advertised to the public in this country, but, so far as we know, it is not at the present time; at least, not directly. Yet it is most effectively advertised to the public indirectly, and this with little expense to the promoters, the cost of the circular around the bottle being the only expense—doctors who prescribe it do the rest. If those who are in the habit of prescribing Vin Mariani will examine the advertising that goes into the hands of their patients they will realize how true it is that our profession is responsible for much of the "patent-medicine" taking. Few laymen could withstand the temptation to buy the stuff for any ailment that comes along when they read in the circular that this "medicine," which their doctor evidently thinks is a

good thing, is so highly recommended, for all the ills that befall us mortals, by the Pope of Rome, the Czar and the Czarina of Russia, the Queen of England, the Shah of Persia, the King of Norway and Sweden, the Queen of Portugal, the Queen of Saxony, the Crown Prince of Cambodia, Ferdinand of Bulgaria, and by a whole list of ambassadors, generals, politicians, musicians, actresses, etc. The testimonials of these great men and women are enough to convince the most skeptical that this remarkable medicine will do everything but raise the dead—and under favorable circumstances accomplish even this. And still more—it will win battles! Witness this from the governor-general of Madagascar: "We were refreshed by Vin Mariani, and before morning carried the stronghold." Alexandre Dumas and Emile Zola are credited with calling it "the elixir of life." One very strange thing about the testimonials in the circular used in this country is that all are written by foreigners. But Americans (President McKinley—think of it—among others) are honored by having their testimonials quoted in the circulars used on the other side of the Atlantic. Why? Is it possible that the testimonials are fakes?

AN ETHICAL CURE-ALL.

Here are a few of the conditions that the circular says Vin Mariani is good for: "Anemia, winter cough, debility, vocal weakness, la grippe, continued fevers, bronchitis, nervous troubles, muscular weakness, diseases of the aged, malaria, melancholia, overwork, neurasthenia, impotence, malnutrition, depression, heart troubles, wasting diseases, mental overstrain, and in certain cases of protracted convalescence."

The following quotations are taken from blotters—circulated in this country—which are evidently intended for the laity, as well as for physicians:

"Vin Mariani creates and sustains vigor and energy. Guards against wasting diseases. When everything else has failed try it to prove merits."

"Lung, Throat and Stomach Troubles benefited by Vin Mariani; this Ideal French Tonic strengthens entire system of Body, Brain and Nerves."

"Most Efficacious, Most Agreeable, Unequaled by anything in Fortifying, Strengthening, Refreshing."

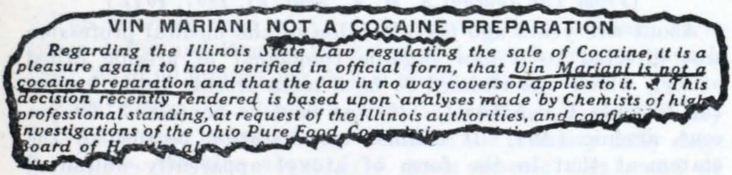
WHY BLAME THE LAYMAN FOR USING NOSTRUMS?

Can we blame the layman for using peruna, wine of cardui, etc., simply because they are advertised, when there are physicians who, for the same reason, prescribe concoctions that are just as quackish and just as useless? And can editors of medical journals consistently find fault with newspapers for

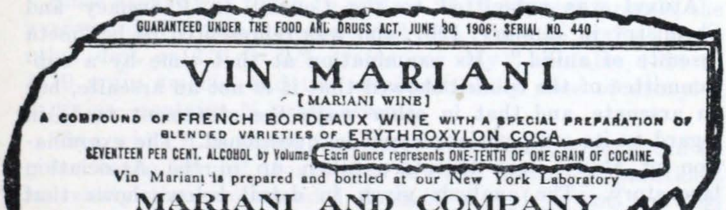
carrying advertisements of fraudulent "patent medicines" when they themselves admit to their pages advertisements of nostrums that are no less fraudulent and of no more value?[1]

MEMBER OF PROPRIETARY ASSOCIATION.

One word more: There is an organization known as the Proprietary Association of America, but it is usually referred to in common parlance as the "patent-medicine" men's association. It will be remembered that last year we printed a list of the members of this body, among which was the Vin Mariani Company. It will be remembered also that in the list were the names of certain firms who were supplying medicines



BEFORE.*



AFTER.*

* Advertisements of Vin Mariani before and after national Food and Drugs Act went into effect.

to physicians, but practically all these resigned from membership and their resignations were published by us. We have not had the pleasure of publishing the resignation of the Vin Mariani Company. On the contrary, we note that at the last annual meeting of the "patent-medicine" men's association this firm was still an active member, Mr. A. L. Jaros, who stands for the Mariani Company in this country, being one of those registered at the meeting.

PART II.

CONTRIBUTIONS FROM THE CHEMICAL LABORATORY.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

ATOXYL.

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., Sept. 21, 1907, 1041.*)

About five years ago the attention of the medical profession was directed to a new organic compound of arsenic called atoxyl, which was claimed to be a meta-arsenic anilid having the formula $C_6H_5NHAsO_2$. It was said to contain 37.69 per cent. arsenic (As). It claimed consideration because of the statement that in the form of atoxyl apparently unlimited amounts of arsenic could be administered without toxic effect.

Atoxyl was submitted to the Council on Pharmacy and Chemistry in January, 1907, and was represented to be "meta arsenite of anilid." Its examination at that time by a subcommittee of the council showed that it is not an arsenite, but an arsenate, and that in other ways the statement made in regard to its composition should be questioned. The examination of atoxyl was therefore taken up in the Association laboratory. The analysis given in detail below shows that the specimen of atoxyl examined did not contain 37.69 per cent. of arsenic, as stated in the literature, but instead contained only 25.77 per cent. From the analysis and the reports of other investigators, it was concluded that atoxyl is the sodium salt of arsenic acid in which one hydroxyl radical of arsenic acid has been replaced by a molecule of anilin. Agreeing with this, the manufacturers now have adopted this formula—i. e., $C_6H_4(NH_2)(AsO.OH.ONa)_2$—as indicating the composition of atoxyl, whereas heretofore they have given the following: $C_6H_5NHAsO_2$. While our analysis indicates that the atoxyl molecule is combined with 3 molecules of water, the results of other chemists make it appear that the water content is variable. It is desirable, therefore, that the amount of arsenic in atoxyl, as found on the market, be controlled from time to time. To facilitate such control, the method of examining atoxyl used by us is published in detail.

Since physicians in using this new compound of arsenic will wish to compare its effect with other arsenic compounds, a

comparison of the dosage of atoxyl with Fowler's solution will be of interest at this time. As atoxyl contains the arsenic as an arsen*ate* while in Fowler's solution it is present as an arsen*ite*, the doses are compared by calculating in each case the weight of the element arsenic itself.

In the advertising literature it is stated for atoxyl that "forty times as much arsenic may be assimilated in this form as when the element is exhibited in Fowler's solution or other of the ordinary arsenical preparations." The average dosage is stated to be from 1/3 to 4/5 grain, given every other day. It is also stated that the dose may be cautiously increased to as much as 3 grains daily.

The ordinary dose of Fowler's solution is 3 minims, three times daily, and it may be increased to much greater quantities; 30 to 60 minims per day is no uncommon dose.

Each minim of Fowler's solution contains approximately 1/133 grains of arsenic (As), therefore the ordinary daily dose, 9 minims, contains about 1/15 grain arsenic (As), and 60 minims contain nearly 1/2 grain of arsenic (As).

Since atoxyl was found to contain 25.77 per cent. arsenic, the average daily dose recommended (1/3 to 4/5 grains every other day, or 1/6 to 2/5 grains per day), contains 1/24 to 1/10 grain arsenic, and the maximum daily dose of atoxyl—3 grains—contains 3/4 grain arsenic.

Thus while it is stated that forty times more arsenic can be given in the form of atoxyl than in other arsenic preparations, in reality the recommended dose of atoxyl is but one and one-half times as great as the advised dose of arsenic given as Fowler's solution.

[Contribution from the Chemical Laboratory of the American Medical Association.]

BURNHAM'S SOLUBLE IODIN.

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., March 28, 1908.*)

Burnham's Soluble Iodin, according to the manufacturers, is one of the most noteworthy "discoveries" of the age. The advertisements aim to create an impression that while the product contains iodin, pure and simple, yet by some secret process this element has been so changed as no longer to possess its usual properties. The Burnham Soluble Iodin Company makes such extravagant claims for its product and gives such wide publicity to these claims that it seemed advisable, in the interests of the profession, to determine the nature of the prepa-

ration. Its examination was accordingly taken up in the laboratory of the American Medical Association.

From the analysis,[1] given in detail below, we conclude that Burnham's Soluble Iodin is a solution of iodin in alcohol made miscible with water by the presence of some iodid. Wilbert[2] and other investigators have arrived at practically the same conclusion.

Whatever the secret process, hinted at in the advertisements, by which this preparation is evolved, the fact remains that when one prescribes Burnham's Soluble Iodin, one is prescribing iodin, together with an iodid, the nature of which is hard to determine. The iodid is not present as potassium iodid nor, entirely, at least, as hydrogen iodid (hydriodic acid), but this is of slight importance compared with the fact that it is a solution in alcohol of free iodin and an iodid, and therefore is essentially the same as Lugol's solution.

The amount of iodin found corresponds approximately to 3.0 gm. of free iodin and 2.0 gm. of combined iodin in 100 c.c. of the solution. Lugol's solution contains 5.0 gm. free iodin, and 10.0 gm. potassium iodid in 100 c.c.

BURNHAM'S SOLUBLE IODIN TABLETS.

Burnham's Soluble Iodin Tablets are a light brown compressed tablet, stamped with the letters B. S. I. in mono-

---

1. ANALYSIS OF BURNHAM'S SOLUBLE IODIN: At different times two specimens were purchased in the open market and examined. In the report they are referred to as Specimen No. 1 and Specimen No. 2. Burnham's Soluble Iodin is a reddish brown liquid, having a slight odor of iodin and is miscible with water in all proportions.

Iodin: The presence of free iodin is shown by the usual starch test and the violet color when extracted with chloroform.

Free Acid: When mixed with water and decolorized with sodium thiosulphate the solution obtained is distinctly acid in reaction. Also, if all iodin is extracted with chloroform the colorless solution which remains is strongly acid in reaction.

Iodids: The colorless acid solution obtained when all free iodin is removed by extracting with chloroform responds to tests for iodids, i. e., gives with silver nitrate a yellow precipitate which is insoluble in nitric acid; on the addition of sulphuric acid followed by ferric chlorid, hydrogen dioxid, potassium permanganate or potassium dichromate, free iodin is liberated.

Glycerin: By evaporating on a water bath, Burnham's Soluble Iodin leaves a thick dark brown residue which is volatile only after prolonged heating. The usual milk of lime method for separation of glycerin failed to demonstrate its presence.

Alcohol: In a portion of Burnham's Soluble Iodin the free iodin was destroyed with sodium thiosulphate, the solution made alkaline with sodium hydroxid and distilled. Ethyl alcohol was detected in the distillate by the iodoform test.

Ethyl Acetate: The solution remaining after the removal of free iodin with sodium thiosulphate has an odor closely resembling ethyl acetate.

gram. Each tablet is said to contain 3 minims Burnham's Soluble Iodin.

The average weight of each tablet was found to be 0.3526 gm.; since Burnham's Soluble Iodin was found to have a specific gravity of .8527 and to contain 4.5 per cent. total iodin, the tablets should contain approximately 2.3 per cent. total iodin, about one-half to two-thirds of which, depending on the condition of the "Soluble Iodin" from which they are made, should be free iodin. Instead of this, only 0.317 per cent. free iodin and 1.57 per cent. total iodin was found. The analysis in detail is given below.[3] It shows that Burnham's Soluble Iodin tablets contain approximately one-fourth the amount of free iodin and approximately two-thirds the amount of total iodin which should be contained therein if, in accordance with the label, each tablet contains 3 minims of Burnham's Soluble Iodin.

COMMENT.

The literature put out by the Burnham Soluble Iodin Company is in itself enough to condemn the products it advertises. The much emphasized statement of the company that

> **"Something had to be done: and Burnham's Soluble Iodin is that which has been done"**

fulfils, in its blatant assertiveness, all the requirements of nostrum advertising. The results of the analyses are not, therefore, a surprise.

Estimation of Free Iodin: A weighed quantity of Burnham's Soluble Iodin was added to 10 c.c. of water and titrated with tenth normal sodium thiosulphate volumetric solution.

Estimation of Total Iodin: (1) A weighed quantity of Burnham's Soluble Iodin was added to a solution of 2 gm. of potassium hydroxid in 10 c.c. of water, evaporated nearly to dryness, a little starch added to facilitate desiccation, the mixture then brought to dryness and ignited. The residue was then extracted with hot water and in this solution the iodin determined as silver iodid. (2) The same procedure as in (1) was used except that in place of precipitating the iodin as silver iodid it was liberated by the addition of hydrochloric acid and ferric chlorid, extracted with chloroform and titrated with tenth normal sodium thiosulphate volumetric solution. (3) Free iodin was reduced to iodid with sulphurous acid and in the clear solution total iodid determined by precipitation as silver iodid. (4) Free iodin was extracted with chloroform. To the clear liquid remaining in the separator sulphuric acid and ferric sulphate were added and liberated iodin extracted with chloroform. The combined chloroformic extracts were then titrated with tenth normal sodium thiosulphate volumetric solution, or each titrated separately and the two results then combined.

Estimation of Free Acid: A weighed quantity of Burnham's Soluble Iodin was added to 10 c.c. of water and the iodin titrated with tenth normal sodium thiosulphate volumetric solution. To the colorless liquid phenolphthalein was then added and the free acid determined by titration with tenth normal alkali. The volume of alkali consumed was then calculated to hydrogen iodid and from

Secrecy is just as essential to-day to the successful exploitation of this class of proprietaries as it was before the demand for formulas became so universal. The requirement of publicity is evaded, therefore, in one of two ways: Either a formula is given which is false, or at least meaningless, or else the claim is made that the method of preparing the product is a unique and remarkable secret that is possessed only by the manufacturers. The Burnham Soluble Iodin Company uses the latter device.

Meanwhile, physicians will be perfectly justified in viewing with suspicion all claims based on such conspicuously unscientific premises, more especially so when these claims fail to find substantiation on careful and painstaking analyses. In brief, whenever the physician wishes to administer free iodin, Lugol's solution (Liquor Iodi Compositus, U. S. P., Physician's Manual, page 84) is an inexpensive and perfectly available preparation.

---

this the figures representing combined iodin, in the table under Combined iodin, calculated from acidity, were calculated. It will be seen that the amount of iodin here indicated added to the free iodin found exceeds the total iodin by a large amount. It is plain, then, that this acidity is not due entirely to hydrogen iodid and may be due to another acid entirely and the iodid ions otherwise combined than with the hydrogen ions. It will be seen that as the free iodin increases in Specimen No. 2, the acidity decreases in proportion, the sum of the two being always about the same. The results are here tabulated.

	Free Iodin.	Total Iodin.				Combined Iodin.	
		Method 1.	Method 2.	Method 3.	Method 4.	1. Total iodin less free iodin.	2. Calculated from acidity.
Specimen No. 1.	2.65	4.45	4.50	...	...	1.83	2.45
	2.57	4.52	4.51	...	...	1.95	2.40
Specimen No. 2.	2.40	4.67	...	4.58	4.58	2.21	2.55
	3.06	4.66	...	...	...	...	...
	3.14	...	...	...	...	...	2.02
	3.23	...	...	...	...	...	1.91

Alcohol: To 25 c.c. Burnham's Soluble Iodin, sodium thiosulphate was added in quantity just sufficient to decolorize. The solution was at once added to 5 gm. of potassium hydroxid dissolved in 100 c.c. of water. Of this mixture, exactly 100 c.c. was distilled over and the specific gravity of the distillate determined; all measurements being made at a temperature of 15.6 C., 92 per cent. by volume of ethyl alcohol was indicated.

Specific Gravity: The weight of 25 c.c. of Burnham's Soluble Iodin is 21.3177 gm., indicating a specific gravity of .8527.

2. Proc. Am. Pharm. Assn., 1903, li, 409.

3. Three packages of 100 tablets each were purchased in the open market. From each package 25 tablets were removed, powdered and thoroughly mixed, and the mixture was used for the determinations.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

CALCIDIN—ABBOTT.

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., Sept. 7, 1907, 866.*)

[The following has been submitted to, and its publication approved by, the Council on Pharmacy and Chemistry.

W. A. PUCKNER, Secretary.]

IN the advertising literature of the Abbott Alkaloidal Company it is claimed that Calcidin—Abbott produces therapeutic effects entirely different from those obtained from iodin in any other form. In view of this and similar extravagant claims, and because the statements made in regard to its composition are vague and confusing, it was considered of interest to determine the nature of this proprietary article. Accordingly an original package of calcidin was purchased in the open market and submitted to analysis.

From this analysis we calculate the composition of calcidin to be:

	Per cent.
"Available iodin (liberated on acidulation)	9.20
Calcium iodid (CaI_2)	5.71
Calcium oxid (CaO)	18.45
Calcium carbonate ($CaCO_3$)	34.45
Corn starch (anhydrous)	16.13
Iron and aluminum	Traces
Magnesium oxid (MgO)	.35
Water (by difference)	15.71
	100.00

In other words, we conclude that calcidin is essentially a mixture of iodin, calcium iodid, lime and corn starch and that the preparation is made by mixing ordinary iodin, lime and corn starch, the calcium iodid and some calcium iodate being

---

Free Iodin: Of the powder prepared as above 5 gm. was mixed with 50 c.c. of water and starch paste added. A faint blue color developed indicating the presence of iodin. On drop of a tenth normal sodium thiosulphate volumetric solution discharged this blue color. On standing a few moments the blue color returned and another drop was added. This was repeated until a solution free from blue color remained even after standing one and one-half hours. A total of 1.26 c.c. tenth normal sodium thiosulphate was used indicating .317 per cent. iodin.

Total Iodin: A weighed quantity of the powdered tablets was mixed with a solution of 2 gm. of potassium hydroxid in 10 c.c. of water, evaporated and ignited. The residue was extracted with hot water and in the solution the total halogen determined by precipitation as silver halid. It was found that 2.4213 gm. of Burnham's Soluble Iodin Tablets gave .0716 gm. of silver iodid, indicating .03865 gm. or 1.59 per cent. iodin. In a duplicate 2.9341 gm. of the tablets gave .0841 gm. of silver iodid, indicating .04544 gm. or 1.55 per cent. iodin.

formed by the action of the lime on the iodin in the presence of moisture. The exact amount of calcium iodid found in different specimens of calcidin will vary in accordance with the amount of moisture present and the age of the product.

While it is claimed that calcidin produces "therapeutic effects entirely different from those obtained from iodin in any other form," in reality the introduction of calcidin into the acid stomach contents results in such chemical changes that it corresponds to giving iodin, calcium iodid and calcium chlorid, each 65 mg. (1 grain) of calcidin being equal to about 6 mg. (1/10 grain) iodin, 4 mg. (1/15 grain) calcium iodid and 50 mg. (4/5 grain) calcium chlorid.

As a comparison the average dose of Liquor Iodi Compositus, U. S. P. (Lugol's solution) is 0.2 c.c. (3 min.), and these 3 minims contain 10 mg. (1/6 gr.) of iodin. The dose of calcidin is given as ⅓ to 2 grains, and this will contain 1/30 to 1/5 of a grain of iodin. In other words, the full dose (2 grains) of calcidin contains a little less iodin than 3 minims of Lugol's solution.

CALCIDIN TABLETS.

Having in mind past experiences, where proprietary preparations put up in different forms have differed more or less in composition, sometimes to the extent that the different forms resembled each other in name only, and also realizing the difficulty of making a mixture of lime and iodin into tablets without serious decomposition, the examination of calcidin tablets was taken up.

This examination demonstrated the fact that calcidin tablets do not have the same composition as calcidin itself, but instead are essentially tablets of calcium iodid. While 1 grain of calcidin is equal to 1/10 grain of iodin, 3 calcidin tablets, which represent 1 grain of calcidin, are equivalent to but 1/83 grain iodin. While the recommended dose of calcidin itself will contain 1/30 to 1/5 grain of iodin, the same amount given in the form of calcidin tablets is equivalent to only 1/250 to 1/40 grain iodin.

The analysis shows that the attempt to produce calcidin tablets was a failure because of the tendency of iodin to react with bases to form iodates and the tendency of the iodates to decompose with formation of iodids, which facts are well known to chemists.

COMMENTS.

Two points are especially worthy of emphasis in the above report by the Association chemists. The first is the old, old story so common in the history of nostrums and "patent medi-

cines," of discrepancies between the extravagant, unscientific and absurd claims made by the manufacturers or promoters and the actual facts as revealed by a scientific examination. Inspection of the advertising matter for calcidin shows that its promoters make the following statements regarding it:

> Calcium Iodized, Calcidin—Abbott—is an entirely unique substance, being neither a true chemical compound, nor a simple mixture of its ingredients. Briefly, it is calcium carrying an excess of freely available iodin.

In a circular discussing the nature of the product is this statement:

> It is a new compound of iodin and calcium easily broken up when in contact with acids and of remarkable therapeutic value.

Another advertisement states:

> Calcidin—Abbott (Calx Iodata) is a unique product. It consists of lime unchanged or modified except by hydration, bearing a definite percentage of available iodin. There is no essential chemical union between the two, neither is it a mere mechanical mixture of calcium and iodin, but by a peculiar [?] process (which is stopped at precisely the right moment [sic]) the lime becomes a carrier for the iodin, which is liberated when the substance is brought in contact with acids in the digestive tract.

It is also claimed that calcidin produces "therapeutic effects entirely different from those obtained from iodin in any other form;" that it is "the most effective and only non-injurious preparation of iodin for internal use," and that it possesses all of the valuable properties of iodin with all of the objectionable effects left out.

This enthusiastic eulogy of the preparation closes with the following climax:

> If it is a case in which iodin (divested of all its objecable features) would be "the remedy of choice" use calcidin and rest assured the result will be satisfactory.

Certainly a preparation possessing such startling and epoch-making qualities is worthy of careful investigation.

It is somewhat disappointing, after having our expectations brought up to such a point, to be informed that calcidin is simply a mixture of iodin, lime and corn starch, and that the results of its administration are exactly stimilar to those obtained when giving an equal amount of ordinary iodin, calcium iodid and calcium chlorid. Had the promoters of this preparation advertised their product as a convenient method of administering a certain amount of these three chemicals, there would have been no ground for criticism. It is a different mat-

ter, however, to make extravagant and ridiculous claims of unique and unequaled therapeutic properties, which are not, in any sense, borne out by the facts in the case.

One other point worthy of emphasis in this connection is that, according to the advertisements of calcidin, the great advantage presented by the use of calcidin tablets is that they contain "free iodin." Calcidin and calcidin tablets are supposed to be practically the same thing, but, as is so often the case in proprietary preparations, the statements made by the manufacturers are not borne out by the chemical analysis. Calcidin tablets are said to contain ⅓ of a grain of calcidin and hence should contain 1/30 of a grain of "free iodin" per tablet. As a matter of fact each tablet contains only 1/250 of a grain of "free iodin," an amount so small as to be of no practical value, the remaining iodin being in the form of calcium iodid, *a substance condemned by the manufacturers of calcidin as practically inert.* The advertising matter specially emphasizes the statement that "free iodin" alone is of value and that iodids are practically useless. Such being the case, it is unfortunate that calcidin tablets contain practically no "free iodin" at all and that all of the iodin present is in the form of iodids. In other words, the preparataion does not contain the form of iodin which it is claimed to contain, and does contain the form of iodin which the promoters insist is of little value.

The practical lesson to be drawn from the above report is that any manufacturer who makes extravagant claims, or any product which is advertised by means of statements of marvelous methods of manufacture, unique properties, unheard-of-chemical contents and the like, is to be viewed with suspicion. Calm statements of scientific and chemical facts are one thing and circus poster methods of advertising are quite another.

[Contribution from the Chemical Laboratory of the American Medical Association.]

UNOFFICIAL PREPARATIONS OF HYDRASTIS (GOLDEN SEAL).

W. A. Puckner.

(*From The Journal A. M. A., July 4, 1908.*)

In the price-lists issued by most manufacturers of pharmaceutical products there are to be found listed under fluidextracts, the following preparations of golden seal (hydrastis): "Golden seal U. S. P.," "Golden seal, aqueous," "Golden seal,

colorless." As the term, "fluidextract," or "fluid extract," designates a class of pharmaceutical preparations of which 1,000 c.c. represent 1,000 gm. of the drug, the several golden seal preparations should be of the same drug strength. It is difficult, therefore, to understand why these preparations should differ so widely in prices. Thus, a recent price-list (Ray Chemical Company) quotes them at $3.60, $2.75, and $1.25 a pint, respectively, in the order named above.

The price-lists of some manufacturers shed light on this subject to some extent, at least. Thus H. K. Mulford Co.'s catalogue contains under fluidextracts, "Hydrastis U. S. P.," "Hydrastis, Aqueous (without alcohol)," and "Hydrastis, Colorless (non-alcoholic)," but a foot-note explains that the last preparation is one of those which "differ from fluidextracts in that they are not made 1 gm. to the c.c." So also the price-list of Parke, Davis & Co., which quotes "Golden Seal," "Golden Seal, Aqueous" and "Golden Seal, Colorless," contains an explanatory note which states that "Golden Seal, Colorless" does not represent the crude drug minim for grain.

On the other hand, the price-list of Hance Bros. & White contains an explanatory note which leads to the inference that their golden seal preparations are all of the same strength, thus:

"The Golden Seal used in our preparations is assayed to the standard of 2 per cent., white alkaloid Hydrastin, this being the alkaloid which produces the characteristic physiologic effects.

"We list three Fluid Extracts: Golden Seal, U. S. P., Golden Seal, Aqueous, and Golden Seal, Colorless. Fluid Extract Golden Seal, U. S. P., contains resinous matter and will not make a clear solution with water. Fluid Extract Golden Seal, Colorless, contains only the white alkaloid Hydrastine in an aqueous solution and is especially prepared for medication of the genito-urinary mucous membrane. It makes clear solutions with water and does not stain linen."

Yet the preparations are offered, respectively, at $4.50, $3.75, and $3 per pint.

Evidently, therefore, there is something radically wrong in the system which lists under fluidextracts, Golden Seal, Aqueous and Golden Seal, Colorless. To investigate the matter further, the products of a number of manufacturers were purchased in the open market and examined.

GOLDEN SEAL, AQUEOUS.

The table below gives the descriptions as they appear on the labels of the products supplied by the manufacturers and also the percentage of the alkaloid hydrastin which they were found to contain when examined by the process of the U. S. Pharmacopeia and by a modification of the official method (Method B). The results of the assays by the latter

method, as has been explained elsewhere,[1] are somewhat higher than those obtained by the official method. The latter determinations were made, and the results are recorded only as a verification of the values obtained by the first, the official method. It should be remembered that the official strength of fluidextract of hydrastis is 2 gm. alkaloid to the 100 c.c., whereas, the preparations mentioned below varied from 0.58 to 1.79 gm.

The following table shows that, with one exception (No. 8), the "non-alcoholic," "aqueous" hydrastis preparations examined should not be designated as fluidextracts since they do not contain the amount of the alkaloid hydrastin which the Pharmacopeia directs for fluidextract of hydrastis (2 per cent.). Only one product, that of Stearns, approached the alkaloidal strength the official fluidextract. In reply to an inquiry, Frederick Stearns & Co. claimed that the preparation was made in April, 1907, and at that time assayed exactly 2 per cent. hydrastin.

Two firms, Eli Lilly & Co., and Parke, Davis & Co., do not use, on the label, the word "fluidextract," but instead, call their preparations, respectively, "Fluid Golden Seal, Non-Alcoholic," and "Fluid Golden Seal, Aqueous." These firms also state the amount of alkaloid which these preparations contain, viz., 1.25 per cent., and 1 per cent., respectively, and the examination confirms these claims in a general way.

The results of the analyses were submitted to the several firms interested who were requested to state how these results agreed with those obtained by their own chemists. The replies received, indicate that either the preparation is made and sold without control of its alkaloidal strength or, if assayed, no attempt is made to meet the official standard for fluidextract of hydrastis.

In brief, this examination demonstrates that few of the so-called "non-alcoholic" or "aqueous" fluidextracts of golden seal, deserve the title, "Fluidextract." It also indicates that, in addition to the claim that the inert constituents have been removed, equal prominence should be given to the fact that, to a large extent, the chief active constituent also has been removed. The replies of the manufacturers generally indicate that being an unofficial preparation, little attention is paid to its strength (something on the order of the "eggs good enough for custard," of Mr. Peck's illustrious son); but they also show a willingness to improve the quality of the product or to label it properly.

1. Pharmaceutical Review, May, 1908, p. 132.

GOLDEN SEAL AQUEOUS.

No.	Firm.	Title on label.	Claims made.	Grams of hydrastin in 100 c.c. of preparation. By U. S. P. Method	By Method B.
1.	Hance Bros. and White.	"Fluid Extract Golden Seal aq."	"The irritating resin of golden seal is eliminated and only the alkaloid retained."	1.43	1.49
2.	Eli Lilly & Co.	"Fluid Golden Seal (Non-alcoholic)."	"The resin and other inert matter is eliminated while the hydrastin and berberin are retained in natural combination, 1.25 gm. hydrastin in 100 c.c."	1.09	1.16
3.	H. K. Mulford Co.	"Fluid Extract of Hydrastis aqueous."	"Represents the medicinal properties of hydrastis but excludes the resinous extractive."	0.58	0.64
4.	Parke, Davis & Co.	"Fluid Golden Seal, Aqueous"	"Represents the medicinal properties of hydrastis. The resinous extractive has been excluded." "Standard, 1 per cent. hydrastin."	0.93	0.95
5.	Ray Chemical Co.	"Ray's Fluid Ext. Golden Seal non-alcoholic."	"Represents the medicinal properties of hydrastis. The resinous extractive has been excluded."	0.77	0.82
6.	Schieffelin & Co.	"Aqueous Fluid Extract of Hydrastis."	No statement[2] except "contains no alcohol."	1.31	1.35
7.	Sharp & Dohme.	"Fld. Extr. Golden Seal Aqueous."	"Each cubic centimeter represents 1 gram . . . of Golden Seal."	1.50	1.62
8.	Frederick Stearns & Co.	"Fluid Extract Hydrastis Aqueous."	"No claims made.	1.79	1.79
9.	Truax, Greene & Co.	"Fld. Ext. Golden Seal without alcohol."	"Contains all the native principles of the drug except the inert, gummy and resinous matter. . ."	1.04	1.10
10.	Wm. Warner & Co.	"Fluidextract Golden Seal without alcohol.	No claims made.	1.26	1.35

2. In Schieffelin & Co.'s prices current of March 30, 1907, it is stated that "Hydrastis, aqueous" is standardized to U. S. P. strength. On corresponding with this firm it appeared that the sample analyzed was of old stock, of which Schieffelin & Co. said:

GOLDEN SEAL, COLORLESS.

On the labels of the trade packages of the so-called "Golden Seal, Colorless" preparations, the following descriptions appear:

Hance Bros. & White: "Liquid Golden Seal, Colorless." "One fluidounce represents one and one-quarter grains(0.081 gm.) hydrastin."

"This preparation is simply a solution of the White Alkaloid of Hydrastis Canadensis in approximately the proportion in which it exists in a prime quality of the drug—twenty grains to the pound—and without the addition of any ingredient intended to increase its action."

Eli Lilly & Co.: "Liquor Hydrastin."

"This preparation, frequently called 'Colorless Hydrastis,' contains the colorless medicinal principles of Golden Seal."

H. K. Mulford Co.: "Fluid Hydrastis (Colorless)."

"Each pint of the fluid contains 20 grains of white alkaloid, the only valuable constituent of Hydrastis."

Parke, Davis & Co.: "Fluid Golden-Seal, Colorless."

"Each fluidounce of this fluid contains 1¼ grains of Hydrastin, the white alkaloid of Hydrastis (Golden Seal)."

Ray Chemical Co.: "Ray's Fluid Extract Golden Seal (Colorless)."

Sharp & Dohme: "Fluid Golden Seal, Colorless."

"Each pint contains 20 grains Hydrastin, White Alkaloid, the principal and most valuable constituent of Golden Seal."

F. Stearns & Co.: "Fluid Golden Seal (Colorless)."

"Each fluidounce of this preparation contains 1¼ grains of Hydrastin (White Alkaloid), to which, recent investigations have shown, the valuable properties of Golden Seal (Hydrastis) are due."

Truax, Greene & Co.: "Liquid Hydrastin."

"Fluid Golden Seal, Colorless."

"One pint of this solution contains an amount of the 'White Alkaloid' Hydrastin equivalent to that contained in one pound of fresh Golden Seal root of average quality.."

H. K. Wampole & Co.: "Fluidextract Golden Seal, Colorless."

"Each pint contains, in a non-alcoholic menstruum: Hydrastin, 20 grains."

Wm. R. Warner & Co.: "Fluidextract Golden Seal, Colorless."

"Each pint contains 20 grains Hydrastin."

The above shows that only a few firms use the word "fluid extract" on the label; nor, with one or two exceptions, is any attempts made to make it appear that the preparation approaches fluidextracts in strength. In general, the labels show that they are weak solutions of salts of hydrastin. While the fluidextract of hydrastis contains 2 per cent. of alkaloid, these preparations contain less than 0.3 per cent.

"None of the old stock should have been sent out subsequently to the issuing of the price list, and we regret to find that a few liters of what we had on hand were sent out. Therefore, we have no doubt that your analytic results are correct, and we can only express our mortification that our oversight should have put us in this position." Analysis of a new specimen submitted showed the amount of alkaloid present as represented—that is of standard U. S. P. strength.

The statement made by Truax, Greene & Co. that one pint contains an amount of hydrastin equivalent to that contained in one pint of fresh golden seal root is, to say the least, misleading. Casual reading gives the impression that this preparation contains an amount of alkaloid equivalent to that prescribed for the official fluid extract. The word, "fresh," however, which probably will, and perhaps is intended to escape the reader, is of considerable importance in this case. According to J. U. Lloyd[3] and Alice Henkel[4] every 100 pounds of fresh golden seal, when dried for the market, yields only 28 to 30 pounds.

Since the U. S. Pharmacopeia requires that golden seal contain 2.5 per cent. hydrastin, the "fresh" drug should contain only 0.6 per cent. The preparation of Truax, Greene & Co., however, does not contain even this amount; examination[5] indicating that it contains less than 0.25 per cent. of hydrastin. To a considerable extent, the same criticism applies to the product of Hance Bros. & White, who state that the alkaloid is contained in their liquid Golden Seal, Colorless, "approximately in the proportion in which it exists in a prime quality of the drug." This is followed by the acknowledgment that it contains 20 grains to the pound. Hance Bros. & White apparently feel confident that physicians are quite unfamiliar with the alkaloidal content of drugs!

THERAPEUTIC INDICATIONS.

In conclusion, the following statements taken from the label for these preparations show the extent to which some manufacturers go in their desire to tell physicians (and others?) the various uses to which this remedy may be put:

"It is indicated in atonic dyspepsia, gastritis, and in the treatment of catarrhal affections of the mucous surfaces; also a wash in conjunctivitis and an injection in gonorrhea, vaginal leucorrhea and inflammation and ulceration of the mucous lining of the bladder. It is free from all staining properties. When used as a wash or injection, it should be diluted with from four to twelve times its volume of water." (HANCE BROS. & WHITE.)

"Non-irritant, permanent, will not stain, contains no alcohol. Will be found useful wherever Golden Seal is indicated."

"Medicinal Uses: It is recommended for various inflammatory and catarrhal conditions of mucous membranes; as an injection in gonorrhea, leucorrhea, and other catarrhal affections of the genito-urinary tract; also in inflammatory conditions of the nasal and air passages. Internally is employed in fermentative dyspepsia, malarial troubles, biliousness, gastric catarrh, gastritis, etc. May also be used in combinations, according to the discretion of the prescribing physician." (STEARNS & CO.)

3. Drugs and Medicines of North America, vol. I, p. 84.
4. U. S. Department of Agriculture, Bull. 51, part 6, p. 14.
5. See Pharmaceutical Review, May, 1908, p. 132.

The examination demonstrates that these unofficial preparations, while listed and sold more or less directly under the titles of fluidextracts, do not comply with the standard adopted for the official fluidextract of golden seal; the results may serve as a suggestion to physicians to make some attempt to learn the composition of unofficial remedies. The analyses emphasize the fact that, with hydrastis as with many other drugs, as soon as the physician leaves the official preparations he is dealing with unknown quantities.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

IODIDE OF LIME (NICHOLS').

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., Nov. 2, 1907, 1540*).

Having determined the composition of Calcidin (Abbott), it was deemed of interest to determine the composition of a similar product sold as "iodide of lime (Nichols')" by the Billings Clapp Co., Boston.

Iodide of Lime (Nichols') is said to have been originated about forty years ago by Dr. James R. Nichols of Boston, who was one of the original members of the firm of Billings Clapp Co. A specimen of this preparation was purchased in the open market and analysis in the Association laboratory indicated its composition to be, approximately:

"Available" iodin (liberated on acidulation)	10.66
Calcium iodide (CaI_2)	.65
Calcium carbonate ($CaCO_3$)	3.77
Lime (CaO)	49.06
Alumina (Al_2O_2)	1.87
Magnesia (MgO)	13.89
Silica (SiO_2)	1.22
Water (by difference)	18.88
	100.00

Iodide of Lime (Nichols') is, therefore, essentially a mixture of lime and iodin containing about 10 per cent. iodin. The other constituents apparently are impurities in the lime used in its manufacture.

Calcidin (THE JOURNAL A. M. A., Sept. 7, 1907, page 865), was found to contain 14.13 per cent. iodin, of which 9.2 per cent. in the presence of the acid of the stomach acted as free iodin, while the remaining portion acted as calcium iodid. The Iodide of lime (Nichols') contains 11.22 per cent. iodin, practically all of which (10.66 per cent.) is "available," i. e., liberated as free iodin by the acid of the stomach.

IODIDE OF LIME TABLETS (NICHOLS').

Examination of the tablets of "Iodide of Lime," sold by Billings Clapp Co., demonstrated that, like "Calcidin Tablets," they differ in composition from the original substance which they are supposed to represent. Iodide of Lime (Nichols') was found to contain approximately 10 per cent. "available" iodin. Each ⅓ grain tablet should, therefore, contain about 1/30 "available" iodin. Instead, it was found that each tablet was equivalent to 1/128 grain of free iodin.

It is worthy of note in this connection that the tablets appeared decidedly brown in color, which might be taken to indicate that they really did contain a considerable amount of free iodin. The examination, however, showed that brown color to be due to the presence of large amounts of iron oxid.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

EXAMINATION OF TABLETS OF BISMUTH, OPIUM AND PHENOL.

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., July 25, 1908.*)

The demand for "palatable and convenient" medicaments has led manufacturing pharmacists to attempt to produce in tablet form mixtures which, from the nature of the case, are not suited to that method of compounding. In such cases it becomes a question as to what reliance the physician may place in such products and so an examination of a type of these preparations was made in the Association's laboratory.

Nearly every manufacturing pharmacist lists in his catalogue a tablet composed of bismuth, opium and phenol (carbolic acid). According to the price lists and labels, each tablet contains either five or three grains of bismuth subnitrate, one grain of aromatic powder, one-half grain of powdered opium and one-half grain (in one case one-eighth grain) of phenol.

Specimens of different makes of this tablet were purchased, in open market and from the manufacturer, and were examined to determine the amount of phenol each contained. A long series of experiments, the details of which will be published elsewhere, were carried out to determine the best metho

of estimating the amount of phenol in mixtures of this nature. The methods adopted are given below.[1]

The results here tabulated were obtained from the examination of specimens purchased direct from the manufacturer. At least one other specimen—bought in the open market—of each manufacturer was examined, the latter giving, in nearly every instance a lower figure, probably because it had been in stock longer. In the few cases in which the latter specimen gave a higher result, both findings are given.

The essential point brought out by the table is, of course, that shown by the figures in Column 8—"Amount Found Expressed as Per Cent. of Amount Claimed." It should be realized that if the tablets contained the amount of phenol claimed, the numbers in this column would all be 100. But instead of this even the best specimen contained only 72.65 per cent., while some ranged as low as 12.66 per cent.

The comparative weights of the tablets also is interesting. While the difference in weight between the heaviest (Column 1) and the lightest (Column 2) tablet in one-half the specimens, amounted to less than 10 per cent (Column 4) of the average weight (Column 3), in one instance the difference amounted to 34.35 per cent. (Column 4).

These tablets are a typical illustration of the attempts to produce, in "elegant and palatable form," the impossible—impossible at least without care and expense. From the nature of the processes involved in the manufacture of a tablet, it is very difficult to produce one containing a definite amount of a volatile substance like carbolic acid. Accuracy in dosage

1. Estimation of Phenol (Method A): A quantity of the powdered tablets containing not more than 0.175 gm. phenol was placed in a distilling flask and water sufficient to cover the powder added. The mixture was then acidulated with about 1 c.c. U. S. P. phosphoric acid and the distilling flask connected with a Liebig condenser and a current of steam driven through the flask. The distillation was continued until 250 c.c. of distillate was obtained. Of this distillate, 50 c.c. was measured into a 250 c.c. glass-stoppered flask and 25 c.c. standard bromin solution added, and the mixture acidulated with 5 c.c. hydrochloric acid. After standing one-half hour, the uncombined bromin was determined by adding potassium iodid T. S. and titrating the liberated iodin with standard thiosulphate V. S. As a typical example 8 tablets weighing 3.1045 gm. and calculated to contain 0.2592 gm. phenol were taken. Fifty c.c. of the distillate, representing 0.6209 gm. of the tablets and which should have contained 0.05184 gm. phenol, consumed 11.24 c.c. tenth-normal bromin V. S. Each c.c., being equivalent to 0.001556 gm. phenol, the 50 c.c. contained only 0.017489 gm. phenol, or 2.85 per cent. of the weight of the tablet. (Method B): The same procedure was followed as above outlined, except that the mixture of the powdered tablets and water was saturated with carbon dioxid and the distillation conducted with a brisk current of carbon dioxid passing through the distilling flask constantly.

Manufacturer.	1 Weight of Heaviest Tablet in Gms.[2]	2 Weight of Lightest Tablet in Gms.[3]	3 Average Weight of Tablet in Gms.[4]	4 Per Cent. Variation.[5]	5 Per Cent. Phenol According to Formula on Label.[6]	6 Per Cent. Phenol Found. Method A.	7 Per Cent. Phenol Found. Method B.	8 Amount Found expressed as Per Cent. of Amount Claimed.[7]
Hance Bros. and White	.4053	.3400	.3833	17.03	8.45	1.81	1.85	21.89
W. S. Merrell Chemical Co	.5225	.5152	.5142	1.42	6.30	3.02	3.08	48.89
H. K. Mulford & Co	.4837	.4569	.4752	5.64	1.72	.86	.90	52.34
Parke, Davis & Co. (No. 1)	.5747	.4993	.5328	14.17	6.08	4.27	...	70.23
Parke, Davis & Co. (No. 2)	.5800	.5245	.5518	10.06	5.87	2.76	2.74	47.02
Sharp & Dohme (No. 1)	.3951	.3742	.3852	5.24	8.41	6.06	6.11	72.65
Sharp and Dohme (No. 2)	.4213	.3544	.3937	17.00	8.23	2.83	2.85	34.63
Frederick Stearns & Co	.5221	.3690	.4457	34.35	7.27	1.92	1.93	26.55
Truax, Greene & Co	.3428	.2482	.3232	29.27	10.03	1.38	1.36	13.69
H. K. Wampole & Co. (No. 1)	.3646	.3417	.3525	6.21	9.19	4.06	4.24	46.14
H. K. Wampole & Co. (No. 2)	.3670	.3487	.3609	5.07	8.98	3.53	3.49	39.31
Wm. R. Warner & Co	.2850	.2397	.2684	17.55	12.08	1.53	1.53	12.66

2. Ten tablets, or if the variation proved to be great, 25 tablets, were separately weighed and the weight of the heaviest tablet recorded.

3. Ten tablets, or, if the variation proved to be great, 25 tablets, were separately weighed and the weight of the lightest tablet recorded.

4. One hundred tablets were weighed, and from this weight the average of a single tablet calculated.

5. These figures were obtained by dividing the difference in weight of the heaviest and lightest tablet by the average weight and multiplying this quotient by one hundred.

6. These figures were obtained by dividing the weight of phenol each tablet should contain by the average weight and multiplying this quotient by one hundred.

7. The figures given here are obtained by dividing the highest per cent. of phenol found by either method by the per cent. of phenol indicated by the formula on the package and multiplying this quotient by one hundred.

is indispensable to the scientific administration of drugs. In medicinal preparations of the type just described the essential —accuracy—is sacrificed for the merely desirable—convenience and palatability. To the extent to which physicians prescribe, as tablets, combinations of drugs that can not be successfully put up in that form, to that extent does scientific medicine suffer.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

SALIODIN.

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., Oct. 26, 1907, 1454.*)

[The Council on Pharmacy and Chemistry refused recognition to Saliodin because it conflicted with Rules 1 and 6, and directed publication of the following.

W. A. PUCKNER, Secretary.]

Saliodin is sold by the Saliodin Chemical Co., Scranton, Pa. In the literature and on the trade package the following "formula" is given:

FORMULA

Each Grs. XX of Saliodin contains approximately:

℞

Salicylic Acid, (Aceto—Salicylate)	Grs. XV
Iodine, (Iodate) Equivalent to Iodide Potass	Grs. XV
Acetic Acid, (Acetate) Equiv. to Acetate Potass	Grs. V
Aconite - Equiv. to Tr. Aconite R.	Gtts. IV
Bryonia - " " " Tr. Bryonia,	Gtts. V
Colchicum - " " Vin. Colchicum R.	Gtts. XV
Capsicum - " " Tr. Capsicum	Gtts. II
Oil Gaultheria " "	m III

This formula being indefinite and vague, the examination of saliodin was taken up in the Association laboratory.

From the analysis we calculate the composition of saliodin to be approximately equivalent to a mixture of:

Sodium salicylate	57.54
Potassium iodid	1.18
Potassium acetate	30.00
Matter volatile at 130° (oil of anise, oil of gaultheria, moisture, etc.)	8.10
Undetermined (extractive?)	3.18
	100.00

The analysis shows that the formula is not only indefinite and vague, but incorrect and false.

To emphasize the incorrectness of the published formula the following comment on the first two items is offered:

In the "formula" it is stated that 20 grains of saliodin contain approximately "salicylic acid (aceto-salicylate) Grs. XV." The statement is not clear, but conveys the impression that 20 grains of saliodin contain an amount of an aceto-salicylate, a salt of acetyl-salicylic acid (aspirin), equivalent to 15 grains of salicylic acid. But the chemical examination shows that it contains neither acetyl-salicylic acid, or salt of acetyl-salicylic acid, nor even salicylic acid itself. In the place of these, the analysis shows that over half of saliodin is the common, every-day sodium salicylate.

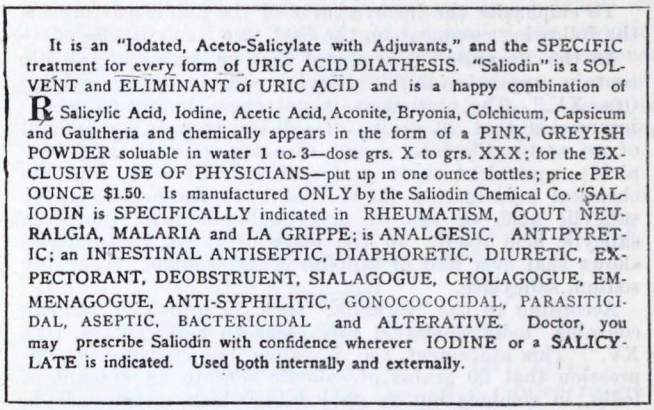
According to the "formula," each 20 grains of saliodin contains "iodin (iodate), equivalent to iodid potass. Grs. XV." This statement, too, is vague, but conveys the impression that 20 grains of saliodin contain an amount of iodin, in combination as an iodate, which corresponds in iodin content to 15 grains of potassium iodid. But the analysis shows that the product does not contain any iodate whatever, and that the amount of iodin contained in it is sufficient to account for only ¼ grain of potassium iodid in each 20 grains of saliodin.

COMMENTS.

The above report is published simply as another example of the "ethical proprietaries" that physicians are asked to prescribe. It is not unique. It is neither better nor worse than hundreds of others.

To show what absurdities appear in the "literature" (?) that is sent to physicians, we reproduce a paragraph from an advertising pamphlet. The promoters' statement as to the composition of the product is absurd, but not more so than are the claims made for it as a therapeutic agent. There is not a "patent medicine" on the market for which any more blatant, extravagant and ridiculous claims are made.

The manner of exploiting saliodin is another illustration of the tendency on the part of nostrum-makers to advertise their wares through pseudo-scientific articles published in a certain class of medical journals. In the pamphlet sent out by the Saliodin company appears a reprint of an article from the *Philadelphia Medical Summary* of February, 1905. It is entitled "A Similarity in the Etiologic Factors of Rheumatism and Malaria," and was written by J. C. Denston, M.D. In it occurs this statement: "The manufacturers (of saliodin) publish their formula and, *I think*, distribute samples and literature on request." The charming ingenuousness of this statement is fully realized when it is understood that J. C. Denston is the president of the Saliodin company. This is



It is an "Iodated, Aceto-Salicylate with Adjuvants," and the SPECIFIC treatment for every form of URIC ACID DIATHESIS. "Saliodin" is a SOLVENT and ELIMINANT of URIC ACID and is a happy combination of

℞ Salicylic Acid, Iodine, Acetic Acid, Aconite, Bryonia, Colchicum, Capsicum and Gaultheria and chemically appears in the form of a PINK, GREYISH POWDER soluable in water 1 to 3—dose grs. X to grs. XXX; for the EXCLUSIVE USE OF PHYSICIANS—put up in one ounce bottles; price PER OUNCE $1.50. Is manufactured ONLY by the Saliodin Chemical Co. "SALIODIN is SPECIFICALLY indicated in RHEUMATISM, GOUT NEURALGIA, MALARIA and LA GRIPPE; is ANALGESIC, ANTIPYRETIC; an INTESTINAL ANTISEPTIC, DIAPHORETIC, DIURETIC, EXPECTORANT, DEOBSTRUENT, SIALAGOGUE, CHOLAGOGUE, EMMENAGOGUE, ANTI-SYPHILITIC, GONOCOCOCIDAL, PARASITICIDAL, ASEPTIC, BACTERICIDAL and ALTERATIVE. Doctor, you may prescribe Saliodin with confidence wherever IODINE or a SALICYLATE is indicated. Used both internally and externally.

Reproduction (much reduced) of a paragraph in the advertising pamphlet on Saliodin.

Note the twenty-one indications for Saliodin. Lest some condition might be overlooked, we are advised to use it "internally and externally." Isn't this scientific therapy?

also another illustration of what is now a common occurrence, viz.: men who are engaged in manufacturing proprietary products and who have an M.D. degree use that degree as a commercial asset, and by this means the average reader is led to think that articles written by them in praise of their own products are spontaneous tributes from practicing physicians.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

SODIUM PERBORATE.

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., Sept. 5, 1908.*)

A chemical compound known as sodium perborate has been put on the market in the last few years and its use proposed in both medicine and the arts. Its therapeutic and technical value depends on its property of forming hydrogen dioxid when brought in contact with water, and it has been proposed as a substitute for hydrogen dioxid solution (Aqua hydrogenii dioxidi, U. S. P.). The advantages claimed for it over the well-known "peroxid" are those of stability, uniformity, convenience, greater oxidizing power and decreased cost. Thus, it is stated that while "hydrogen peroxid preparations are subject to deterioration and loss in strength when once the bottle is unsealed" sodium perborate "will keep and stand

transportation in its concentrated powder form and always be ready for solutions of hydrogen dioxid of any desired strength, whereas the bulky hydrogen peroxid 10 volume solution has to be diluted for use in most cases and keeps you always uncertain of its real strength." Another advantage claimed for sodium perborate is that its solutions in water are alkaline, while the available medicinal hydrogen peroxid solutions are always acid.[1]

Since it appeared that sodium perborate might possess some real advantages over hydrogen dioxid the Council on Pharmacy and Chemistry took up the examination of the product as found in the American market with a view to including it in the New and Non-Official Remedies. In this country sodium perborate is advertised and sold chiefly by the Roessler & Hasslacher Chemical Company, New York, and the firm claims that the preparation contains from 9 to 10 per cent. of available oxygen. Samples of sodium perborate were obtained both direct from the firm and also in the open market. When assayed by the method given below they were found to contain, not from 9 to 10 per cent. of available oxygen as stated on the label, but from 6.54 to 7.66 per cent., as is shown in the account of the examination given in detail below.

---

1. The chemical formula assigned to sodium perborate is $NaBO_3+4H_2O$. While sodium meta-borate $NaBO_2$ has the constitutional formula BO(ONa) and is derived from BO(OH) sodium perborate $NaBO_3$ has the constitutional formula BO(OONa) and is derived from BO(OOH). When sodium perborate is treated with water hydrolysis occurs, thus: $NaBO_3+H_2O = NaBO_2 + H_2O_2$; the sodium meta-borate so formed gradually absorbs water to form borax and sodium hydroxid, thus: $4NaBO_2 + H_2O = Na_2B_4O_7 + 2NaOH$. From this, it appears that sodium perborate when dissolved in water reacts to a certain extent to form hydrogen dioxid, borax and sodium hydroxid; if acid is added to neutralize the sodium hydroxid then the reaction goes on to completion, and all the sodium perborate is decomposed into hydrogen dioxid. Assuming that every molecule of sodium perborate $NaBO_3$, $4H_2O$ yields one molecule of hydrogen dioxid, which, in turn, contains one atom of available oxygen, then every 152.94 gm. sodium perborate should yield 15.88 gm. of available oxygen.

2. SPECIMEN 1.—Three one-quarter pound packages (designated A, B and C) received at the chemical laboratory of the American Medical Association direct from the manufacturer, in July, 1907. Package A was assayed at that time and found to contain 6.79 per cent. available oxygen. Package B was left in its original condition, and package C was transferred to a glass stoppered bottle. On June 3, 1908, packages A and B each assayed 7.14 per cent. available oxygen, while package C (the one kept in the glass stoppered bottle) assayed 5.29 per cent. available oxygen.

SPECIMEN 2.—Three one-quarter pound packages (designated A, B and C), received at the chemical laboratory of the American Medical Association direct from the manufacturer Aug. 23, 1907. Packages A and C were not opened when received. Package B was opened and examined at once. The contents were found to weigh

transportation in its concentrated powder form and always be ready for solutions of hydrogen dioxid of any desired strength, whereas the bulky hydrogen peroxid 10 volume solution has to be diluted for use in most cases and keeps you always uncertain of its real strength." Another advantage claimed for sodium perborate is that its solutions in water are alkaline, while the available medicinal hydrogen peroxid solutions are always acid.[1]

Since it appeared that sodium perborate might possess some real advantages over hydrogen dioxid the Council on Pharmacy and Chemistry took up the examination of the product as found in the American market with a view to including it in the New and Non-Official Remedies. In this country sodium perborate is advertised and sold chiefly by the Roessler & Hasslacher Chemical Company, New York, and the firm claims that the preparation contains from 9 to 10 per cent. of available oxygen. Samples of sodium perborate were obtained both direct from the firm and also in the open market. When assayed by the method given below they were found to contain, not from 9 to 10 per cent. of available oxygen as stated on the label, but from 6.54 to 7.66 per cent., as is shown in the account of the examination given in detail below.

---

1. The chemical formula assigned to sodium perborate is $NaBO_3+4H_2O$. While sodium meta-borate $NaBO_2$ has the constitutional formula BO(ONa) and is derived from BO(OH) sodium perborate $NaBO_3$ has the constitutional formula BO(OONa) and is derived from BO(OOH). When sodium perborate is treated with water hydrolysis occurs, thus: $NaBO_3+H_2O = NaBO_2 + H_2O_2$; the sodium meta-borate so formed gradually absorbs water to form borax and sodium hydroxid, thus: $4NaBO_2 + H_2O = Na_2B_4O_7 + 2NaOH$. From this, it appears that sodium perborate when dissolved in water reacts to a certain extent to form hydrogen dioxid, borax and sodium hydroxid; if acid is added to neutralize the sodium hydroxid then the reaction goes on to completion, and all the sodium perborate is decomposed into hydrogen dioxid. Assuming that every molecule of sodium perborate $NaBO_3$, $4H_2O$ yields one molecule of hydrogen dioxid, which, in turn, contains one atom of available oxygen, then every 152.94 gm. sodium perborate should yield 15.88 gm. of available oxygen.

2. SPECIMEN 1.—Three one-quarter pound packages (designated A, B and C) received at the chemical laboratory of the American Medical Association direct from the manufacturer, in July, 1907. Package A was assayed at that time and found to contain 6.79 per cent. available oxygen. Package B was left in its original condition, and package C was transferred to a glass stoppered bottle. On June 3, 1908, packages A and B each assayed 7.14 per cent. available oxygen, while package C (the one kept in the glass stoppered bottle) assayed 5.29 per cent. available oxygen.

SPECIMEN 2.—Three one-quarter pound packages (designated A, B and C), received at the chemical laboratory of the American Medical Association direct from the manufacturer Aug. 23, 1907. Packages A and C were not opened when received. Package B was opened and examined at once. The contents were found to weigh

The above report was submitted to the Council on Pharmacy and Chemistry. The council having directed publication of the report, it was sent to the Roessler & Hasslacher Chemical Company prior to publication. The reply of the firm was submitted to the Council by a subcommittee, with the following report:

In accordance with the general procedure followed by the Council, the report of the chemical laboratory as adopted by the Council and ordered published was submitted to the manufacturer. In reply the manufacturer states that the firm is now conducting experiments to overcome the defects found. Your committee regrets that the manufacturer does not agree

---

140 gm. It assayed 7.66 per cent. available oxygen. On June 6, 1908, the contents of this package weighed 115.5 gm. and assayed 7.32 per cent. available oxygen. Package A was opened and found to assay 7.2 per cent. available oxygen. Package C is still retained in its original condition.

SPECIMEN 3.—A one-quarter pound package purchased in the open market in Chicago, Aug. 24, 1907. The contents of the package weighed 130 gm. on date of purchase and assayed 6.59 per cent. available oxygen. On June 3, 1908, the contents of this package weighed 106 gm. and assayed 7.34 per cent. available oxygen.

SPECIMEN 4.—A one-quarter pound package purchased from the Chicago branch of the Roessler & Hasslacher Chemical Co., May 13, 1908. On the date of purchase this specimen assayed 6.54 per cent. available oxygen.

SPECIMEN 5.—A one-quarter pound package purchased in the open market in Chicago on April 21, 1908. On date of purchase this specimen assayed 6.74 per cent. available oxygen. On June 3, 1908, this specimen assayed 6.26 per cent. available oxygen.

The above examination reveals two important facts regarding this substance. In the first place it is not of the strength indicated on the label; in the second place the product seems to be decidedly unstable and unreliable. Specimen 1, in the eleven months intervening between the two assays, increased in strength. The weight of this sample was not ascertained at the time of purchase. Specimen 2 lost by keeping, approximately 17.5 per cent. in weight. If this loss is due to the loss of moisture or water of hydration only, a corresponding increase in available oxygen should be noted. In other words the specimen should have assayed at this time something over 9. per cent. available oxygen. Instead approximately 4 per cent. of the amount of available oxygen originally present had disappeared, showing that the actual loss of available oxygen was about 26 per cent. of that originally present. Specimen 3 lost approximately 18 per cent. in weight. Again, if this loss was due to water only, the specimen should have assayed approximately 8 per cent. available oxygen. This indicates an actual loss in available oxygen of approximately 10 per cent. of that originally present.

METHOD EMPLOYED.—The following method was used to determine the available oxygen content in sodium perborate: A weighed quantity of the salt was placed in a dry flask and about 200 c.c. of water added. To this was added 10 c.c. dilute sulphuric acid and titration with potassium permanganate solution at once begun. A few of the earlier estimations were checked by the method proposed in Merck's *Prüfungsvorschriften für die pharmazeutischen Spezial-Präparate,* as follows: To a weighed quantity of sodium perborate

to withdraw the false claims made for the product until the product possesses the strength claimed. It is understood that the Council will gladly reinvestigate the product any time that the firm believes that their experimentations have led to a successful issue and the product as found on the market complies with the rules. In the meantime your committee recommends that the report be published so that physicians may be informed of the truth and not be misled by the claims of the manufacturer which may in the future be trustworthy but certainly are not so at present.

This report was adopted.

W. A. PUCKNER, Secretary.

---

about 1 gm. was placed in 100 c.c. volumetric flask and treated with 50 c.c. water. To this 10 c.c. of dilute sulphuric acid were added and solution hastened by moderate agitation. Potassium iodid, 5 gm., dissolved in 25 c.c. of water were added and the mixture allowed to stand with frequent agitation during one-half hour. Sufficient water to make the liquid measure 100 c.c. was then added and portions of 10 c.c. titrated with tenth-normal sodium thiosulphate solution.

The results above given were transmitted to the manufacturers. In their reply the manufacturers did not claim that the product sold by them contained from 9 to 10 per cent. available oxygen, but nevertheless appeared to consider it their privilege to sell it under this claim. While not claiming that the product really contained 9 to 10 per cent. available oxygen, they did express surprise at the low results obtained in this laboratory and, as was but natural, suggested that probably the method of assay used by us was faulty and did not do their product justice. Thus, they suggested, that there is danger that some oxygen may be liberated from the solution before the titration is made. They suggested that the liquid should not be heated in order to produce a quicker solution and that the sulphuric acid should only be added after all the porborate has dissolved. To determine whether complete solution of perborate before titration is essential, the following experiments were made:

1. Sodium perborate was treated with water having a temperature of 9 C. (48.2 F.); the dilute sulphuric acid was added before complete solution and titration with permanganate begun at once. Result, 7.89 per cent. available oxygen.

2. The conditions of the experiment were as in (a), except that the water had a temperature of 35 C. (95 F.). Result, 7.76 per cent. available oxygen.

3. The water had, and was kept at, a temperature of 9 C. (48.2 F.); the acid was added only after complete solution had occurred (this required 30 minutes), and the titration then begun. Result, 7.58 per cent. available oxygen.

4. The water had a temperature of 35 C. (95 F.). The acid was added after complete solution had occurred (4 minutes), and titration then begun. Result, 7.59 per cent. available oxygen.

These experiments show that the method of titrating sodium perborate as used in our experiments did not entail loss of oxygen prior to the titration.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

URICEDIN.

W. A. Puckner and A. H. Clark.

(*From The Journal A. M. A., Nov. 23, 1907, 1788.*)

In view of the interesting report given below concerning investigations of Uricedin made by F. Zernik in the Pharmaceutical Institute of the University of Berlin, and because this preparation is being advertised to physicians in this country, its examination was taken up in the Association laboratory to determine the composition of the product as sold here. The following is a translation of the Zernik report from the *"Arbeiten aus dem Pharmaceutischen Institut der Universitat Berlin, dritter Band,"* 1906, and is given to show how this remedy has varied in its composition as put on the market in Germany.

URICEDIN (STROSCHEIN).

BY F. ZERNIK.

Uricedin is made by the firm of manufacturers of chemical preparations, J. E. Stroschein, Berlin.

1. This powder, recommended for the treatment of the uric acid diathesis, appeared first in 1893. According to the statements of the manufacturers, it was produced in the following manner: "In lemon juice freshly expressed and clarified and purified according to the process announced for the patent the amount of citric acid is quantitatively determined and to the juice are added 50 parts of anhydrous citric acid, 20 parts of the purest sulphuric acid containing 95 per cent. H_2SO_4 and 4 parts of the purest hydrochloric acid of 25 per cent. and then the purest sodium carbonate until the mixture shows only a faint acid reaction. In addition 1 part of lithium carbonate is dissolved in sufficient of the lemon juice for exact neutralization, and this solution is mixed with the first and the whole completely dried and granulated. The preparation contains:

27.5 parts of	Na_2SO_4
1.6 parts of	NaCl
67.0 parts of	$Na_3C_6H_5O_7$
1.9 parts of	$Li_3C_6H_5O_7$

2. According to an analysis by Goldmann, Uricedin consisted of:

31.9 parts of	Na_2SO_4
1.6 parts of	NaCl
6.2 parts of	Na_2CO_3
59.1 parts of	$Na_3C_6H_5O_7$
1.6 parts of	H_2O

A second preparation was found by Goldmann to have a strong acid reaction.

3. A sample of Uricedin investigated by Schneider at the same time had an alkaline reaction and contained sodium carbonate as well as lithium.

4. According to later reports the Uricedin produced by the use of fresh lemon juice contains sodium citrate 62.7 per cent., sodium sulphate 29,694, sodium chlorid 1.206, sodium acetate 1.320, sodium tartrate 1.500, sodium malate 1.550, iron 0.040, sodium pectinate 1.170, extractive material 0.820.

The preparation used for examination was in an intact original package. The blue octagonal bottle, closed with a metal screw cap, contained about 135 grams of a yellowish-white, granulated powder of a salty taste that dissolved in water to a turbid liquid of acid reaction. Sodium, sulphuric acid, citric acid, chlorin, tartaric acid and traces of iron could be detected in it, but neither lithium, acetic acid, nor malic acid. From the results of the quantitative analysis Uricedin contains about 2.5 per cent. of sodium chlorid and 66.5 per cent. of anhydrous sodium sulphate; the remainder consists of sodium citrate and a little sodium tartrate.

As a comparison of the results of the present examination with the previous analyses shows, the composition of Uricedin seems to vary.

The Fischer Chemical Importing Company of New York is the American agent. The product is sold in blue, screw-cap bottles, each containing the name "Uricedin-Stroschein" blown in the glass. In the literature distributed by the American agents appears the following statement:

"This remedy is not a 'patent medicine,' as might appear from the name that has been adopted for it. The preparation is a definite chemical compound of unvarying composition, consisting of citrate of sodium, sulphate of sodium, chlorate of sodium, acetate of sodium, tartrate of sodium, pomate of sodium, limonin, etc., in definite proportions. The preparation is produced by a special chemical process through the action of purest sulphuric and hydrochloric acids and carbonate of sodium on true citric acid from the lemon fruit."

From our analysis we conclude that the composition of Uricedin as now found on the American market is approximately:

Sodium sulphate (anhydrous)	61.52 per cent.
Sodium citrate (anhydrous)	29.62 per cent.
Sodium chlorid	2.13 per cent.
Citric acid (anhydrous)	3.25 per cent.
Moisture	2.53 per cent.
Undetermined	0.95 per cent.
	100.00

Uricedin, therefore, is not a definite chemical compound as claimed, but a simple mixture which consists essentially of sodium sulphate (dried Glauber salt) ⅔, and sodium citrate ⅓.

COMMENT.

It is evident from the analyses that this product is a typical nostrum, in addition to which it would seem that the composition is changed from time to time to suit the whim of the manufacturer. The claim is made by the manufacturer that this product is a definite chemical compound, when, in reality, it is simply a mixture. This well-known device of nostrum manufacturers has been exposed so often that it is becoming an old story—and a disgraceful one.

The therapeutic claims made for this nostrum are of the same extravagant nature. For instance, a recent advertisement states that it is "used successfully for Gouty Diathesis, Urinary Calculi, Rheumatoid Arthritis," "useful in Migraine, Occipital Headache, Epilepsy, Hay Fever, Asthma, Nasal Catarrh, Hysteria, Neurasthenia, Eczema, and certain functional disturbances of the sexual organs." Who would have believed that such wonderful therapeutic effects could ever be obtained by the administration of Glauber salt and sodium citrate. If a simple mixture of this sort will do all the promoters claim Uricedin will do, then in the name of suffering humanity let us use it, but at the same time, in the name of common decency, let us prescribe its ingredients by their proper names, knowing what we are giving our patients. The ingredients for such a mixture would cost not to exceed 50 cents a pound, while this wonderful remedy is listed at $1.25 wholesale, per bottle of about 5 ounces. Surely if this combination will do what its promoters claim for it, it is an act of philanthropy to put it within the reach of the poorest patient. Finally, if we must prescribe nostrums, let us at least be patriotic and confine ourselves to home-made fakes, of which there is surely no lack at the present time.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

URISEPTIN.

W. A. Puckner and W. S. Hilpert.

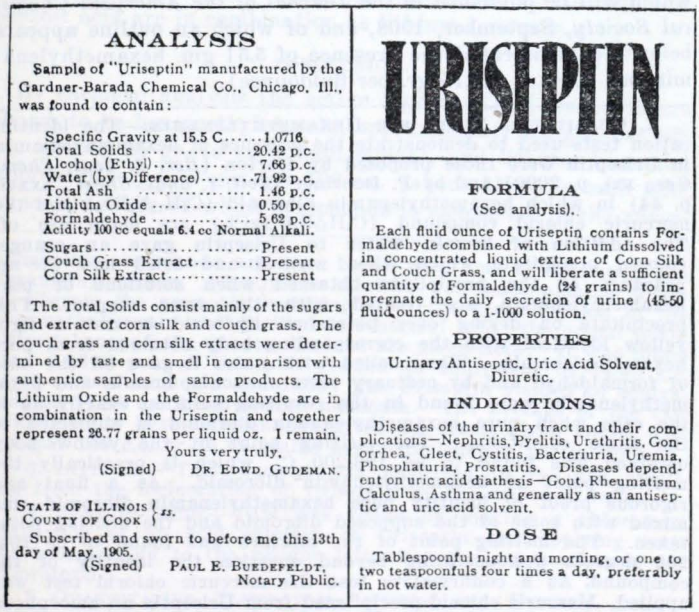
(*From The Journal A. M. A., Aug. 29, 1908.*)

"Uriseptin," manufactured by the Gardner-Barada Chemical Co. of Chicago and claimed to be a "urinary antiseptic, uric acid solvent and diuretic," was examined in the laboratory of the American Medical Association to determine to what extent the claims made for it are justified.

The preparation as purchased in the open market bears a label which presents the claims of the manufacturers, emphasized by the chemical analysis duly signed by an analyst and attested by a notary. Accompanying is a reproduction of part of the label.

Before the examination had extended very far it was found that discrepancies existed between facts and claims, and by the time the analysis was complete Uriseptin was found to be in the same class as many other proprietary remedies that have been discussed in these columns.

Our examination shows that the most misleading statement is that concerning the "lithium-formaldehyd" compound the



ANALYSIS

Sample of "Uriseptin" manufactured by the Gardner-Barada Chemical Co., Chicago, Ill., was found to contain:

Specific Gravity at 15.5 C	1.0716
Total Solids	20.42 p.c.
Alcohol (Ethyl)	7.66 p.c.
Water (by Difference)	71.92 p.c.
Total Ash	1.46 p.c.
Lithium Oxide	0.50 p.c.
Formaldehyde	5.62 p.c.
Acidity 100 cc equals 6.4 cc Normal Alkali.	
Sugars	Present
Couch Grass Extract	Present
Corn Silk Extract	Present

The Total Solids consist mainly of the sugars and extract of corn silk and couch grass. The couch grass and corn silk extracts were determined by taste and smell in comparison with authentic samples of same products. The Lithium Oxide and the Formaldehyde are in combination in the Uriseptin and together represent 26.77 grains per liquid oz. I remain,

Yours very truly,

(Signed) DR. EDWD. GUDEMAN.

STATE OF ILLINOIS } ss.
COUNTY OF COOK }

Subscribed and sworn to before me this 13th day of May, 1905.

(Signed) PAUL E. BUEDEFELDT,
Notary Public.

URISEPTIN

FORMULA

(See analysis).

Each fluid ounce of Uriseptin contains Formaldehyde combined with Lithium dissolved in concentrated liquid extract of Corn Silk and Couch Grass, and will liberate a sufficient quantity of Formaldehyde (24 grains) to impregnate the daily secretion of urine (45-50 fluid ounces) to a 1-1000 solution.

PROPERTIES

Urinary Antiseptic, Uric Acid Solvent, Diuretic.

INDICATIONS

Diseases of the urinary tract and their complications—Nephritis, Pyelitis, Urethritis, Gonorrhea, Gleet, Cystitis, Bacteriuria, Uremia, Phosphaturia, Prostatitis. Diseases dependent on uric acid diathesis—Gout, Rheumatism, Calculus, Asthma and generally as an antiseptic and uric acid solvent.

DOSE

Tablespoonful night and morning, or one to two teaspoonfuls four times a day, preferably in hot water.

Reduced reproduction of part of the label from a package of Uriseptin.

presence of which is claimed, more or less directly, by both the manufacturers and the analyst employed by the manufacturers. Although the chemical properties of lithium and formaldehyd indicate in themselves that the existence of such a compound would be most improbable, yet considerable time was spent in searching the chemical literature for such a compound. Thorough search, however, demonstrated that no such compound, nor any that even approximated it, has been described.

The question then arose as to the form in which the lithium and the formaldehyd are present. The statements regarding its properties as a urinary antiseptic and the fact that the preparation is said to slowly liberate formaldehyd in the bladder point strongly to the presence of hexamethylenamin.

Tests[1] were applied to demonstrate whether the formaldehyd was present as a lithium compound, and if not, whether it existed in the form of hexamethylenamin. By these the presence of hexamethylenamin was proved and the absence of formaldehyd in other combinations demonstrated. This fact alone shows that the preparation is deliberately marketed under a false claim, and it shows further that the analysis on the label is worthless. The quantitative method of analysis—which will be published in the *Journal of the American Chemical Society*, September, 1908, and of which an outline appears below[2]—demonstrated the presence of 5.51 gm. hexamethylenamin per 100 c.c. (25.15 gr. per fluidounce).

1. QUALITATIVE TESTS FOR HEXAMETHYLENAMIN.—The identification tests used to demonstrate the presence of hexamethylenamin in Uriseptin were those proposed by Horton (*Ber. d. deut. Chem. Ges.*, xxi, p. 2000) and by P. Dobriner (*Zeit. f. anal. Chem.*, xxxvi, p. 44) in which hexamethylenamin dibromid ($C_6H_{12}N_4Br_2$) and the mercuric chlorid compound ($C_6H_{12}N_46HgCl_2$) are made use of. The addition of bromin water to Uriseptin gave an orange-colored precipitate which when washed and dried had the appearance of the precipitate obtained when solutions of pure hexamethylenamin are treated with the same reagent. This precipitate on drying over potassium hydroxid became a light yellow identical with the corresponding body obtained from pure hexamethylenamin. When boiled with water it gave off the odor of formaldehyd and by ordinary tests ammonia, bromin and hexamethylenamin were found in the resulting solution exactly as is the case when pure hexamethylenamin dibromid is subjected to the same conditions. The melting point of the yellow body obtained was found to be 196-200 C., which is practically the melting point of hexamethylenamin dibromid. As a final and rigorous proof of identity pure hexamethylenamin dibromid was mixed with some of the supposed dibromid and the melting point taken. The melting point of the mixture was found to be 194-200 degrees demonstrating beyond question the identity of the compound. As a confirmative test the mercuric chlorid test was applied. Mercuric chlorid precipitated from Uriseptin an amorphous white body which later turned to a mass of crystals. This crystalline body when washed and dried and boiled with dilute acid liberated formaldehyd. The resulting solution responded to tests for ammonia, hexamethylenamin and mercury. The same test applied to pure hexamethylenamin solution gave exactly the same results. A still further confirmation that hexamethylenamin was present as such and not in some combination which bromin water or mercuric chlorid might decompose, was the fact that chloroform extracted from Uriseptin a substance that had the same crystalline form as pure hexamethylenamin crystallized from chloroform, and which responded to all the above reactions for hexamethylenamin.

2. QUANTITATIVE TEST FOR HEXAMETHYLENAMIN.—Uriseptin was boiled with alkali to liberate and drive off all ammonia present as

Besides the hexamethylenamin, Uriseptin contains lithium[3] and a benzoate.[4] Concerning the latter nothing is said in the analysis, whose worthlessness is again demonstrated. By quantitative methods[5] Uriseptin was found to contain lithium and a benzoate in such proportions as would indicate that the lithium and the benzoate radicle exist as lithium benzoate. This fact is further indicated by the claims made for the preparation regarding its properties as a uric acid solvent, for which purpose lithium benzoate is often used. Again, the demonstration that the formaldehyd present is in combination as hexamethylenamin precluded any possible chemical combination between lithium and formaldehyd and adds another strong point in support of the conclusion that the lithium and benzoic acid are in combination as lithium benzoate.

CONCLUSION.

By chemical analysis the active ingredients of Uriseptin are shown to be hexamethylenamin, approximately 5.5 gm. per 100 c.c. (about 25 gr. to each fluid ounce), and lithium benzoate, approximately 0.70 gm. per 100 c.c. (about 11 gr. to each fluid ounce), neither of which compounds is mentioned in the adver-

---

ammonium compounds, and then boiled with acid to decompose the hexamethylenamin. Finally the mixture was made alkaline again to liberate the ammonia resulting from the decomposition of the hexamethylenamin and distilled into normal acid; the actual quantities taken and the results obtained are given here: It was found that 5.0346 gm. of Uriseptin yielded an equivalent of 74.43 c.c. tenth-normal ammonia and 5.0197 gm. Uriseptin yielded an equivalent of 74.33 c.c. tenth-normal ammonia. The average of the two calculated to hexamethylenamin gives the result given above, 5.51 gm. per 100 c.c. or 25.15 grains hexamethylenamin per fluidounce.

3. LITHIUM.—This element was identified in the ash resulting from the incineration of Uriseptin by the ordinary tests.

4. BENZOIC ACID.—This was found by making a chloroform extraction of an acid solution of Uriseptin and applying tests for benzoic acid to the residue left after the evaporation of the chloroform.

5. QUANTITATIVE TESTS FOR LITHIUM AND BENZOIC ACID.—Lithium was estimated by the method of Gooch (*Amer. Chem. Jour.*, ix, p. 33). Uriseptin, 2.8696 gm., yielded 0.0246 gm. lithium sulphate (Li_2SO_4) and 2.1330 gm. Uriseptin yielded 0.0228 gm. lithium sulphate (Li_2SO_4), giving an average of 0.95 per cent. Li_2SO_4 which is equivalent to 2.35 gm. lithium benzoate in 100 c.c. The benzoic acid was determined by extraction of an acid solution of Uriseptin, evaporating and titrating the residue. Estimations made in this way indicated the presence of 2.00 per cent. of benzoic acid, or 2.10 gm. per 100 c.c. To show that the benzoic acid and lithium are present in the proper proportions to form lithium benzoate, the following is given: Calculating the proportional quantity of benzoic acid required for the quantity of lithium found, the figure, 2.24 gm. per 100 c.c., was obtained, agreeing very closely with the percentage of benzoic acid actually found, that is, 2.00 per cent., or 2.10 gm. per 100 c.c.

tising matter on the label or in the so-called "analysis" on the label. The statements concerning the composition of Uriseptin are false and appear to be a deliberate attempt to mislead physicians.

COMMENT.—Investigation of the various "patent" and so-called "ethical proprietaries" advertised to the public and to the medical profession shows that those that have any value as therapeutic agents depend for that value on some well-known drug or drugs. Hence, while many proprietaries have some virtue, the ingredients which are of any value are so concealed by the coined and "near-scientific" names applied to them that these drugs are usually unrecognizable. The many and various acetanilid mixtures furnish examples of this class of proprietaries. And now we find another example in that much advertised nostrum, Uriseptin.

According to our chemists, the chief ingredients of Uriseptin are hexamethylenamin and lithium benzoate.[1] Hexamethylenamin is a valuable so-called urinary antiseptic—probably one of the best we have. It is a pity that more physicians do not know the value of this drug in and of itself; it is a common ingredient of many proprietaries, and yet too seldom prescribed under its true name. There is no reason for its being given in the form of a nostrum; it requires no skill in compounding, for it is best given in its powdered form, either in capsules or otherwise. So that, like acetanilid, the old argument of the nostrum men that the preparation needs skill in compounding will not hold. If a physician wants to prescribe hexamethylenamin let him prescribe it in its simplest and best form, and thus know exactly what he is giving.

Lithium benzoate also has its rightful place in the materia medica, but not hidden in a proprietary mixture to be prescribed unknowingly. It is hard to conceive of any one thing that operates more disastrously against scientific therapeutics than the vicious practice of marketing under proprietary names standard and valuable drugs, with their identity purposely concealed. Yet how frequently it is done. Well-known drugs of unquestioned worth are combined with those that are little known and of doubtful value, or more likely absolutely worthless, the mixture is put on the market under a high-sounding name and it is exploited through physicians as a panacea for all kinds of diseases.

In this, as in so many other instances, an "analysis," made to order is given to lend an air of apparent respectability and scientific standing to the preparation or to its exploiters, with the object, of course, of misleading physicians into thinking they are reading unbiased testimony. In addition, the "litera-

1. Note the report of the Council on Uron (page 79), another mixture of these two drugs.

ture" accompanying the preparation is usually a jargon of pseudo-scientific verbiage put in to serve the same purpose as the analysis—that of catching the careless physician.

This state of affairs will continue just so long as the medical profession will tolerate it—and no longer. So long as members of our profession will prescribe proprietaries on the statements of their owners—both as to their composition and therapeutic value—just so long will pseudochemical and pseudopharmaceutical companies fatten at the expense of the medical profession and to the detriment of the public health.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

ZYME-OID.

W. A. Puckner and W. S. Hilpert.

(From The Journal A. M. A., May 23, 1908.)

Zyme-oid, manufactured by the Oxychlorine Chemical Company of Chicago, is advertised as "a powerful gastrointestinal antiferment" which will "arrest and prevent bacterial fermentation in any portion of the intestinal tract, whether the media be acid or alkaline." These extravagant statements, like many others made regarding the properties of zyme-oid, are very similar in character to those made in the circulars accompanying the preparation oxychlorine, manufactured by the same firm and exposed in THE JOURNAL, July 6, 1907, page 54.

As examples, several parallel statements help to show this similarity. The formula (?) of oxychlorine, as expounded on the label, is given in full, while in the case of zyme-oid only a hint is given as to its composition, but still sufficient to point to a similarity between the two:

OXYCHLORINE.	ZYME-OID.
"Oxychlorine is a tetraborate of sodium and potassium combined with oxychlorid of boron, thus: $(6NaKB_4O_7)BOCl_3$."	"Zyme-oid is a double borate salt."

In the matter of claims for chemical stability the two seem to be very closely allied:

Oxychlorine is "a stable salt under all conditions until brought in contact with suboxygenated organic matter."	Zyme-oid is "a product which is stable enough for keeping purposes, but which readily yields nascent oxygen in the presence of bacterial products."

The therapeutic properties attributed to these sister products are even more similar, for we find that:

"Oxychlorine is adapted to all morbid and abnormal fermentative alimentary states."

"Zyme-oid is a powerful gastrointestinal antiferment."

Many more statements and claims could be quoted to show a similarity between, amounting almost to an identity of, oxychlorine and zyme-oid.

---

1. ANALYSIS OF ZYME-OID.—Zyme-oid as purchased in the open market is a white granular product devoid of odor, soluble in water, and having a salty taste. The aqueous solution responds to tests for hydrogen, sodium, potassium, chlorate, nitrate and borate ions, the proportions of which were determined quantitatively.

In order to determine sodium and potassium by the sulphate method, all other interfering ions were removed; chlorate and nitrate by the action of acids, and boric acid by repeated distillation with methyl alcohol in the presence of acid (Quantitative Analysis, Olsen, p. 112). In this way 0.3073 gm. of zyme-oid gave 0.1850 gm. combined sodium and potassium sulphates, and 0.3041 gm. zyme-oid yielded 0.1843 gm. combined sulphates. From these figures the sodium content was calculated after the potassium was determined; average, 9.84 per cent. sodium.

The combined sodium and potassium sulphates were dissolved in water and freed from sulphate, and the potassium determined in the usual way as the chlorplatinate, 0.3041 gm. zyme-oid yielding 0.2562 gm. potassium chlorplatinate, equivalent to 13.58 per cent. of potassium. In the second determination 0.3073 gm. of zyme-oid yielded 0.2557 gm. potassium chlorplatinate, an equivalent of 13.42 per cent. of potassium; average, 13.50 per cent. potassium.

The chlorate was determined by reduction of the chlorate to chlorid, having first demonstrated the absence of any chlorid and determining as silver chlorid (Daclin-Répert. de Pharm., 1907, p. 397) and calculating to chlorate. It was found that 0.0751 gm. zyme-oid gave 0.0355 gm. of silver chlorid, which corresponds to 0.0206 gm. chlorate (ClO_3), or 27.51 per cent., and that 0.0815 gm. zyme-oid yielded 0.0387 gm. silver chlorid, equivalent to 0.0224 gm. chlorate (ClO_3), or 27.55 per cent.; average, 27.53 per cent. chlorate (ClO_3).

The nitrate was determined by the zinc-iron method (U. S. Department of Agriculture Bulletin, No. 46, p. 21). By this method 0.7949 gm. zyme-oid was found to contain 0.0433 gm. nitrogen, equivalent to 24.15 per cent. of nitrate. A second determination indicated the presence of 25.29 per cent. of nitrate; average, 24.22 per cent. of nitrate (NO_3).

Boric acid was determined by titration in the presence of glycerin (R. T. Thomson, Jour. Soc. Chem. Industry, xii, 432). It was found that 1.2977 gm. zyme-oid required 5.01 c.c. normal alkali, equivalent to 23.94 per cent. of boric acid, and 1.5826 gm. zyme-oid required 6.12 c.c. normal alkali, equivalent to 23.69 per cent. of boric acid. From the average of these results, boric acid anhydrid was calculated.

Calculations.—All the chlorate was calculated to potassium chlorate and all the nitrate was calculated to sodium nitrate. The remaining potassium and sodium was then calculated to potassium and sodium tetraborates, as this appeared to be the most likely combination of the extra sodium and potassium. Then the quantity of boric acid equivalent to the sodium and potassium tetraborates was subtracted from the total boric acid, giving the quantity of uncombined boric acid.

With these facts in mind, the analysis[1] of zyme-oid was undertaken in order to compare it with the previously examined oxychlorine and to determine to what extent the claims made for zyme-oid are upheld by its composition. The analysis indicated, as was expected, that zyme-oid is essentially the same as oxychlorine as is shown in the following, quoted from the report of the analysis of each:

ANALYSIS OF OXYCHLORINE.		ANALYSIS OF ZYME-OID.	
Potassium (K)	12.26	Potassium (K)	13.50
Sodium (Na)	8.20	Sodium (Na)	9.84
Chlorate (ClO_3)	25.32	Chlorate (ClO_3)	27.53
Nitrate (NO_3)	21.70	Nitrate (NO_3)	24.22
Boric acid anhydrid (B_2O_3)	18.63	Boric acid anhydrid (B_2O_3)	13.42
Water, calculated	13.29	Water, calculated	10.42

Assuming that the chlorate in zyme-oid is present as potassium chlorate and the nitrate is present as sodium nitrate, the figures obtained by analysis correspond to a mixture approximately as follows:

Potassium chlorate ($KClO_3$)	40.43
Sodium Nitrate ($NaNO_3$)	33.22
Potassium tetraborate ($K_2B_4O_7$)	1.60
Sodium tetraborate ($Na_2B_4O_7$)	3.31
Boric acid	21.14

From the results of the analysis and from the physical properties of zyme-oid we conclude, just as was done in the case of oxychlorine, that the preparation is not a definite chemical compound, but is essentially a mixture of alkali chlorate and nitrate with boric acid, probably produced by fusing together the constituents.

COMMENT.

An examination of the claims made for the firm's two products, while, as already proved, disclosing many points of similarity, will also show one remarkable difference. We refer to the skilful indefiniteness that pervades the claims made for zyme-oid and which defies scientific refutation. This verbal obscurity is becoming daily more common in the "literature" of firms marketing nostrums. Since the Council has analyzed many of the much advertised articles and proved the unreliability of the pseudo-scientific claims made for them, the more cautious of the nostrum-mongers have modified the matter descriptive of their products. They have called to their aid the principle that words were given to man to conceal thought rather than to express it, and they have reduced equivocation to a fine art. Wherever it was possible to put forward claims by implication rather than by expression this has been done.

To substantiate further the claims made by the manufacturers of zyme-oid for their product, a laboratory report is

brought in evidence. This report, which is written more in the style of a peruna testimonial than that of a conservative scientific statement, fails to verify the claim that zyme-oid is a "double borate salt," but confines itself to a statement of its harmlessness and its anti-fermentative properties. In passing, it seems regrettable that scientific laboratories should, for a pecuniary consideration, be willing to jeopardize their reputations by lending their names to the furtherance of nostrum exploitation. The results of the examination of zyme-oid demonstrate that the product is no more worthy of the physician's consideration than its close, and equally worthless, relative oxychlorine.

PART III
MISCELLANEOUS NOSTRUMS

ALLEOTONE.

(*Abstracted from The Journal A. M. A., Feb. 1, 1908, 379.*)

The formula of this preparation, given in the literature, reads as follows:

Alcoholici (Monatomic)	gr. 1/1000
Quininæ Sulphatis	gr. 1/384
Ac. Sulph. Dil. (10 per cent.)	gtt. 2½
Ac. Nitrici Dil. (10 per cent.)	gtt. 1/77
Ac. Butanol-Dioic.	gr. 1/3
Tr. Ferri Chloridi	gtt. 1/26
Aquæ	gtt. xx

The formula is worthless. It can only mislead and mystify. Here and there, it is true, flashes of truth appear, but the greater part of the literature is a mere jumble of inaccurate and mystifying statements. The various constituents of the preparation are taken up as follows: The advertising literature states that "Monatomic Alcohol is one of the constituents of all nerve tissue: It is a product of the replacement of one atom of hydrogen of the hydrocarbons by their hydroxyl group H.O." This information does not inform, since there is a vast number of monatomic alcohols and of every description. The assertion that the preparation "contains a salt" would be perfectly analogous and just as enlightening. Of "Ferri Chlo" the literature says: "Ferri Chlo is found with all proteids and nucleins and herein acts as magnetic iron, aiding the play of the electrical travel." The first assertion is untrue, for iron does not exist as chlorid in the cells of the body, but as some organic iron compound; neither is it found in all proteids, but principally in nucleoalbumins; and all proteids do not contain nucleoalbumins. The assertion that the iron chlorid "acts as magnetic iron aiding the play of the electrical travel" is nonsensical and on a par with the electrical belt method of exploitation, and suggests forcibly the class to which Alleotone belongs. The literature further states: "Sulphuric and nitric acids act in removing hydrogen atoms and substitute atoms of the radical NO_2; that is, as hydrogen tranquilizes the speed of burning or oxidation, its action is substituted by the atom nitrogen which is energy itself, nitrogen being the base of all explosives." Sulphuric acid is certainly an oxidizing agent and in virtue thereof removes hydrogen; but not in a solution whose concentration with respect to sulphuric acid is approximately only 0.82 per cent. The statement that nitrogen is the

"base of all explosives" is another example of the methods of the promoters. As it is a well-known fact, however, that nitrogen itself is one of the least reactive of gaseous elements, little confidence can be placed in such remarks as "Nitrogen which is energy itself." Another mystifying term used in the formula is "Ac Butanol-Dioic," which is a true chemical name, certainly, but it is one by which few physicians will recognize simple malic acid, an ordinary vegetable acid widely distributed in ripe fruits, such as apples and pears, and possessing the properties simply of a relatively weak organic acid. To describe it as exercising any potent influence "in the oxidation of the phosphorus as lecithin in the cell"—especially in the extremely low concentration in which it is stated to exist in Alleotone—is simply an absurd juggling with words. It is not much to be wondered at that the public should be taken in by pseudoscientific "literature;" but it is not only strange, it is discreditable to our profession, that among its members should be found any to accept such rubbish as the above quoted "literature" as information worth acting on—yet such there are, judging from the testimonials.

The Commercial Value of Adverse Criticism.

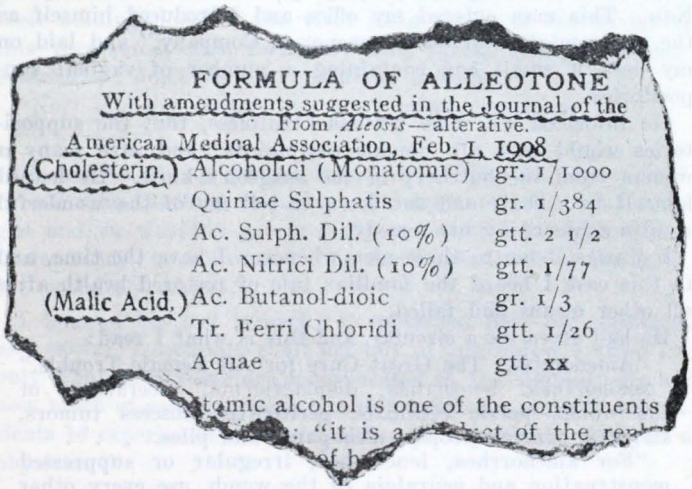
(From The Journal A. M. A., Oct. 17, 1908.)

For skillful attempts to convert a "knock" into a "boost," commend to us the discredited nostrum exploiter. The federal Food and Drugs Act did much to bring out this amiable quality—possibly developed it. While somewhat ancient history, it is well to call to mind what happened when the excise authorities insisted either that the "patent medicine" booze, Peruna, have some medicine put in it, or else that its manufacturers should go into the saloon business. Hartman at once got out a new label stating that "for a number of years a multitude of grateful friends" had urged "that Peruna be given a slight laxative quality." Thenceforth the innocents and near-innocents could get their perunaese jag only at the risk of a "bad quarter of an hour."

One of the latest attempts to wriggle out of an uncomfortable position, and at the same time make capital out of the wriggling, is seen in the advertising of Alleotone, a nostrum of the pseudo-scientific type, which was shown up in THE JOURNAL of Feb. 1, 1908. The "formula" furnished is for the most part a jargon of misleading and mystifying nonsense and fulfills the same purpose as the voluble "patter" of the gentleman who is manipulating three shells and a pea at the county fair.

Every constituent of the "formula" was discussed in THE JOURNAL and the absurdities and impossibilities of each dwelt

on. Did the manufacturers of Alleotone feel downcast over the exposure of their humbug? Not to judge by their advertising, for they write to physicians that "since the A. M. A. analyzed Alleotone it has made great strides"—direction not specified. But the choicest piece of impudence, and one that but for its dishonesty would be laughable, is found in this portion of their advertising pamphlet:-



FORMULA OF ALLEOTONE

With amendments suggested in the Journal of the American Medical Association, Feb. 1, 1908

From *Aleosis*—alterative.

(Cholesterin.)	Alcoholici (Monatomic)	gr. 1/1000
	Quiniae Sulphatis	gr. 1/384
	Ac. Sulph. Dil. (10%)	gtt. 2 1/2
	Ac. Nitrici Dil. (10%)	gtt. 1/77
(Malic Acid.)	Ac. Butanol-dioic	gr. 1/3
	Tr. Ferri Chloridi	gtt. 1/26
	Aquae	gtt. xx

tomic alcohol is one of the constituents
: "it is a ct of the re-
of h

In the original, the words "With amendments suggested in the Journal of the American Medical Association, Feb. 1, 1908," and also "(Cholesterin.)" and "(Malic Acid.)," which we have underscored in the illustration, are printed in red and have been added to the original "formula." Such are the uses of adversity.

What claim, if any, the exploiter of this nostrum—B. F. Copeland—has to medical or pharmaceutical knowledge, we do not know. In fact, to be consistent with the "ethics" of the nostrum business he need have none. Such knowledge, indeed, tends to hamper that free play of the imagination so necessary in this work. We understand that he has at different times been in charge of a stave factory and connected with a brokerage firm, which may exert some subtle influence in developing the ability to relieve suffering humanity, though the connection is not quite clear. One would imagine, however, that the keen business instinct, untrammeled by any considerations of conscience, which is exhibited in the exploitation of Alleotone, would in purely commercial pursuits have long since assured a competence.

AMENORETTS.

"The Great Cure for All Female Trouble."

(*From The Journal A. M. A., March 24, 1906.*)

DODGE CITY, KAN., March 9, 1906.

To the Editor:—As a slight contribution to the fight against nostrums, permit me to relate a recent experience with a detail man for a proprietary preparation made at Topeka, Kan. This man entered my office and introduced himself as the representative of "The Amenorett Company," and laid on my desk a small box containing a number of vaginal suppositories.

He informed me, with zealous kindliness, that the suppositories would cure all "female complaints" and save many a woman from the butchery of the surgeon's knife. He helped himself to a chair and sat down to tell me of the wonderful results achieved by his remedy.

I always listen to these men whenever I have the time, and in this case I heard the familiar tale of restored health after all other means had failed.

He had given me a circular, and this is what I read:

"Amenoretts. The Great Cure for All Female Trouble."

"Amenorrhea, leucorrhea, displacements, ulcerations of the womb, pelvic cellulitis, peritonitis, abscess tumors, sterility, ovarian dropsy, menopause and piles. . . .

"For amenorrhea, leucorrhea, irregular or suppressed menstruation and neuralgia of the womb, use every other night.

"For enlargement and falling of the womb, use every night for three nights, thereafter every other night until cured.

"Ulceration and catarrh of the womb, use every other night.

"Pregnancy period, use once or twice a week after second month.

"Change of life period, twice a week.

"To correct non-development of young women, use three times a week.

"Gonorrhea, use every night for ten nights, or until there is a feeling of lassitude, indicating overuse of the remedy.

"Piles, insert one in the rectum every other night, pushing it well up," and so on.

I asked him what the Amenoretts were made of, and he referred me to the circular. And here is what I read:

"FORMULA OF THE SUPPOSITORY.

"The active principles of Pyrolingenous Acid, Iodine, Picric Acid, Boracic Acid, Quinine, Tetraborate of Soda, Glycerine and Oil of Theobromo."

"TABLETS.

"Pyrolingenous Acid, Iodine, Boracic Acid, and Tetraborate of Soda."

I said: "There is no active principle of pyrolingenous acid [wood vinegar], iodin, picric acid or boracic acid. Quinin is itself an active principle of cinchona, while the active principles of sodium tetraborate [borax], and glycerin must have their abiding place in the vivid imagination of the writer of this very remarkable formula. But, laying aside these non-essentials, I don't see any quantities specified."

"No," said my visitor, "we don't print quantities."

"Why not?"

He smiled at my evident innocence. "Because," he replied, "you'd take the formula across the street to your local druggist and we wouldn't get to sell you any of our suppositories. Understand," he continued, "we don't sell these to the laity. We're strictly ethical."

I ignored his last remark; it contained food for reflection, and said: "I certainly shall not buy of you unless I know not only what substances are incorporated in the suppository, but how much of each substance. And I think too much of my patients to experiment on them with such a product. Are you a physician?"

He said that he was not.

"Well, if you were a physician, how do you suppose you would feel if a man, not a doctor, should come into your office and volunteer advice with regard to the treatment of your patients with something he had to sell, the composition of which he refused to disclose?"

Not being a physician, he didn't know how he would feel under such circumstances. I asked him if he had any difficulty in getting rid of his samples. He said that there was not much, that occasionally a doctor declined them, but that did not occur often. He had recently sampled Kansas City, spending two weeks there, and during the following month he received orders for $200 worth of the goods. And I am afraid that he told the truth.

What right has medicine to be called a learned profession when its votaries, in the use of remedies of unknown composition, exhibit a credulity that puts them on a level with the aboriginal medicine man and far below that of the Christian scientist?

W. H. GRAVES, M.D.

AMOLIN DEODORANT POWDER.

(Abstracted from The Journal A. M. A., Feb. 22, 1908, 626.)

Amolin is a "patent medicine" put on the market by the Amolin Chemical Company. After enumerating the claims made for the preparation by the promoters, THE JOURNAL states that a sample of the powder was examined in the Association laboratory. Amolin was found to be a very fine white powder slightly unctuous to the touch, similar to boric acid or talcum and emitting a faint odor of thymol. Qualitative tests showed the presence of large quantities of boric acid and traces of thymol. Further examination demonstrated the absence of alum, zinc salts and other metallic constituents usually employed in the preparation of deodorant powders. Neither did the tests indicate the presence of salicylic acid, phenol, or any similar organic antiseptic except thymol.

NINETY-NINE PER CENT. BORIC ACID.

In plain words this remarkable powder is practically nothing but boric acid, and furnishes another illustration of what has so often been proved, i. e., that "patent" and "ethical proprietary" medicines usually depend on some well-known drug, or drugs, in every-day use for whatever therapeutic value they possess. This particular preparation happens to come under the designation of "patent medicine," simply and only because it is advertised to the public direct, and the physician who wrote us got his knowledge of it through a patient—reversing the usual order.

BORIC ACID AND ITS QUALITIES.

Boric acid is a good thing; there is no doubt about it. It makes a splendid dusting powder; there are few, if any, better. Modify it as one may, give it an odor or a color to disguise it as one pleases, surround it with mystery or secrecy as one sees fit, it is still but boric acid with all its virtues—and limitations. Dissolved in water, it makes as good a mouth wash, as good an antiseptic solution as any of the high priced, extravagantly advertised, antiseptic lotions on the market, of which it forms the chief and most important ingredient.

ANTIKAMNIA.

The Nostrum and Its Method of Exploitation.

(From The Journal A. M. A., July 1, 1905, 55.)

Our readers will be interested to learn some of the remarkable properties which, according to the statements of the manufacturers, this antikamnia possesses. We quote from the advertising literature:

The well-known nerve specialist (?), Dr. Harley, in an interview published in the *London Daily Express*, says: "I have treated more than one American for nervousness and 'brain fag' directly due to their incessant energy. I had a young man in here this morning who complained of headache 'in the back of the neck.' He was threatened with congestion of the brain, and seemed somewhat aggrieved when I told him he had been trying to do too much.

"I also treated a young American woman, who since her arrival in London had apparently been living on antikamnia tablets by the advice of her physician. It was the only thing, she said, which kept her 'braced up' for the strain of sight-seeing."

(Why did the young woman consult this Dr. Harley—for the drug habit?)

Note the following:

For the severe pains of rheumatism, dysmenorrhea, neuralgia, gout, sciatica and lumbago, as well as for the lightning pains of locomotor ataxia, there can be no quicker and more lasting relief obtained than by the administration of antikamnia and codeine tablets.

Imagine an intelligent physician trying to treat the diseases mentioned below with the various impotent means of the pharmacopeia and physiological therapy when he might depend on antikamnia! We quote again:

As a Pain Reliever.—In headache, cephalalgia, hemicrania, migraine [some other words might have been thrown in so as still more to emphasize the headache business], myalgia, coryza, la grippe and its sequelæ, the lightning pains of locomotor ataxia and all pains due to irregular menstruation.

As an Anodyne or Sedative.—In alcoholic delirium, indigestion, cardialgia, gastralgia, dyspepsia, hysteria, insomnia, inebriety, car-sickness, sea-sickness, worry and sight-seer's fatigue.

As an Antipyretic.—In typhoid, intermittent, puerperal and malarial fevers, bronchitis, pneumonia, pleurisy, and tuberculosis.

As an Anti-Neuralgic.—In acute or chronic neuralgia, facial neuralgia, earache, pain about the teeth, angina pectoris, neurasthenia, palpitation, pains of locomotor ataxia and sciatica.

As an Anti-Rheumatic.—In acute or chronic rheumatism and gout, fever and pleurodynia.

There is no remedy so useful and attended with such satisfactory results as antikamnia tablets in the treatment of melancholia with vasomotor disturbances, anemic headaches, emotional distress, and active delusions of ap-

prehension and distrust. They increase arterial tension and promote digestion, as well as being particularly serviceable in relieving the persistent headache which accompanies nervousness.

In neurasthenia, in mild hysteroid affections, and in the various neuralgias, particularly ovarian, and in the nervous tremor so often seen in confirmed drunkards, they are of peculiar service. In angina pectoris this drug has a beneficial action; it relieves the pain and distress in many cases, even when amyl nitrite and nitroglycerin have failed entirely. In pseudo-angina, frequently observed in hysterical women, its action is all that can be desired.

Patients who suffer from irritable, weak, or palpitating heart, needing at times a pain reliever, can take antikamnia tablets, without untoward after-effects, knowing that the heart is being fortified. In delirium tremens, they relieve when there are great restlessness, insomnia, the general lowering of the nerve power.

Only the vivid picture of a crisis in locomotor ataxia, or the agony of a true migraine, can impress the observer with the full value of this pain reliever.

The following testimonials are from physicians:

Dr. Caleb Lyon, an old Bellevue practitioner, in referring to antikamnia and codein tablets, says:

In my practice they accompany the maid from her virgin couch to her lying-in chamber, assuaging the perplexities of maidenhood and easing the trials of maternity with most gratifying results. I earnestly hope that the proprietors of this valuable remedial agent will keep it up to its present standard of purity and excellence.

Dr. Walter M. Fleming, A.M., M.D., New York City, writes:

. . . With all the experience of more than a quarter of a century, in the treatment of winter cough, and all its complications of laryngeal, bronchial and pulmonary irritability, dyspnea, asthmatic spasms, and finally whooping cough—usually the most persistent and tenacious of all these membranous maladies—I find no one remedy more strongly indicated, or which yields more prompt and satisfactory results than antikamnia and heroin tablets, composed of antikamnia 5 grains and heroin hydrochloride 1/12 grain. . . . Result: a prompt and efficient expectorant, at once relaxing the harsh and rasping cough, releasing the tenacious, sticky and gelatinous mucus which is soon readily expectorated, while the soothing influence of the antikamnia is at once manifested, greatly to the comfort and contentment of the patient. . . . Independent of the fact of the direct applicability of this remedy to the various membranous maladies of the lungs, bronchi, fauces and nose, it proves also, an invariable remedy in all febrile cases where anodyne is required.

This, together with its analgesic and antipyretic merits, eminently qualify this combination for a responsive agent in the treatment of nearly all the numerous febrile attacks characterized by pain, nervousness, insomnia and their accompanying symptoms.

"Antikamnia and Quinin."

If there is any virtue in the particular combination known as "antikamnia," a physician prescribing the tablets supposed to contain combinations of "antikamnia" and some other drugs should have some guarantee that they contain those remedies. Take, for example, the tablets advertised and sold as "antikamnia and quinin." It might reasonably be supposed that the tablets contained the combination known as "antikamnia;" this, however, seems not to be the case. Previous analyses, as published[1] by us, have shown that antikamnia contains approximately 20 per cent. of sodium bicarbonate, yet two chemists, working separately, have been unable to find this ingredient in the tablets advertised and sold as "antikamnia and quinin." Are we to understand, therefore, that the manufacturers do not consider the bicarbonate of sodium of importance in their preparation, antikamnia; or are they guilty of misrepresentation and of misleading physicians in omitting this constituent from their product antikamnia when that is combined with the bisulphate of quinin? The above statement regarding the omission of bicarbonate of sodium from the quinin combination may be verified by any physician who desires to make a few simple chemical tests—carbonic acid is not given off when the tablets are treated with dilute acids, as would be the case if sodium bicarbonate were present. Further, while the ordinary "antikamnia" contains no constituent not soluble either in water or in chloroform, and while quinin bisulphate is readily soluble in water, the tablets said to contain antikamnia and quinin bisulphate, when treated successively with water and with chloroform, leave a residue of more than 18 per cent.

One of the chemists who analyzed the preparation for us, in commenting on this in a letter, says: "The matter which is insoluble in water, alcohol or in chloroform, i. e., the substance which is neither 'antikamnia' nor quinin bisulphate, amounts to more than 18 per cent. in 'antikamnia and quinin bisulphate tablets.' The tablets weigh close to five grains and are said to contain 2.5 grains each of antikamnia and quinin bisulphate. How is this possible when each tablet contains almost one grain of foreign substance (chiefly starch)?"

1. THE JOURNAL A. M. A., June 3, 1905; reproduced on page 4 of this edition.

Further comment is superfluous. We have presented facts to our readers and leave them to draw their own conclusions.

Adding Insult to Injury.

(Abstracted from The Journal A. M. A., Jan. 26, 1907, 340.)

When the Council on Pharmacy and Chemistry, nearly two years ago, began its work of independent and scientific investigation of proprietary preparations, some of the questions asked were:

"What guarantee has the medical profession that the formulas of these proprietary medicines are not changed at the will of the manufacturers? How can the physician who confidingly prescribes them for his patients know that the preparation which he orders to-day is the same as that which was furnished him last year, or which may be given him next year, under the same name?"

At once a wail, as of injured innocence, went up from countless vendors of proprietary medicines, who replied with one voice:

"The honor and reputation of the proprietors and manufacturers is sufficient guarantee of the stability and permanence of these preparations."

So vehement were their protestations and so well simulated were their declarations of Pecksniffian virtue that many physicians were deceived thereby. Many medical journals (whose views were, perhaps, slightly biased by the consideration of fat advertising contracts) also were apparently convinced. But the fact was overlooked that guarantees based on honor are of value only in proportion to the amount and quality of honor possessed by the guarantors.

The enactment of the national Food and Drugs Act is bringing many things to light. Some of them are interesting, some would be amusing were they not so utterly despicable. Among other things, it has furnished a demonstration of the value of the "honorable assurances" of nostrum vendors.

The nostrum antikamnia has pointed many a moral in the campaign in the last two years. It was hardly to be hoped that it would deliberately furnish a demonstration of the utter lack of honesty on the part of a certain class of proprietary manufacturers. Yet, relying apparently on the ignorance of the public and the long-continued lethargy of the medical profession, its promoters have, in the last few weeks, unwittingly convicted and stultified themselves. When the pure food law went into effect, the proprietors of this mixture found themselves in a sad dilemma; if they labeled their mixture in

accordance with the provisions of the law they would have to admit that it contained acetanilid and that the charges against them were true. Failing to comply with the law, they must go out of business. The latter alternative was not to be thought of. The profits gained by selling, with the aid of careless or ignorant physicians, a five- or ten-cent mixture for $1 were too great to be surrendered without a struggle. The same brilliant intellect, perhaps, that first saw the commercial possibilities in the business, said: "Change the formula. Phenacetin is about as cheap as acetanilid; the patent has just expired and consequently we can get it at a low price. Let us substitute phenacetin for acetanilid."

As a result the profession is treated to an edifying exhibition of virtue triumphant, a wolf so completely covered by the harmless coat of a sheep that he flatters himself that his wolfish nature is completely concealed. No longer are skulls and skeletons sent out in calendar form as grinning advance agents to be displayed in every doctor's office, but instead a beautiful domestic scene, showing a convalescent child nestling in the arms of its mother. The familiar "AK," however, as usual, is in the lower right-hand corner. And what a change in labels! No longer is antikamnia a chemical entity, but the label now openly but ingenuously declares that "Antikamnia tablets in this original package contain 350 grains of acetphenetidin, U. S. P., per ounce. Guaranteed under the Food and Drugs Act, June 30, 1906. Serial No. 10." While below, as an entirely unnecessary display of conformity to the Pure Food Act, appears this statement:

"The Antikamnia tablets in this original ounce package contain no acetanilid, antifebrin, antipyrin, alcohol, morphin, opium, codein, heroin, cocain, alpha- or beta-eucain, arsenic, strychnin, chloroform, cannabis indica or chloral hydrate."

Truly, Satan is appearing as an angel of light. What a gratification it is to the long exploited profession to know that antikamnia contains no alcohol, no chloroform, no cannabis indica, no chloral hydrate. How unfortunate that this spontaneous display of confidence is not carried far enough to inform the profession of the ingredients, aside from phenacetin, contained in the mixture!

The label is an admission that the nostrum does not contain what it was never supposed to contain, with the exception of acetanilid, and is directly an attempt to conceal the real contents. The proprietors knew that the dear public, whose "pains, headaches, neuralgias, women's aches and ills, grippal neuroses, nervousness, insomnia, rheumatism, lightning pains

of locomotor ataxia, sciatica, etc," they are longing to assuage, will not know that acetphenetidin is the official designation for what is popularly known as phenacetin, and that this dangerous product is found in the new mixture in the proportion of approximately 4 grains to a 5-grain tablet. Evidently they also presume considerably on the ignorance of our profession, or why should they make the brazen statement that four grains of phenacetin is the "most reliable remedy" for the long list of diseases enumerated on their advertising calendar.

When the formula for which such wonderful virtues was claimed was suddenly thrown overboard, was the medical profession, which by its short-sighted patronage had built up this business, notified in any way of the change? Search the new advertising matter of this nostrum from beginning to end and you will find not one word to show that "The Antikamnia tablets in this original ounce package" differ in the slightest particular from those sold to the profession and the public for years past. This being true (and the statements of the promoters themselves are our authority for it), what remains of the pratings of "honor" and the "guarantee of the manufacturers"? Has a physician no right to know when a change is made in the formula of a preparation which he has been prescribing for years?

What assurance has the profession that, at any moment, a cheaper or more dangerous drug may not be substituted for "acetphenetidin" if thereby the law can be evaded or the profits of the delectable business enhanced?

How can any conscientious physician prescribe, for those who confide their lives to his care, a preparation the stability of the formula of which must depend absolutely on its owner's whim?

How can a physician with the slightest sense of responsibility to his patients allow his office to be used as a free advertising bureau for a preparation manifestly founded and developed on deceit and misrepresentation?

How can any medical journal, except those avowedly and unblushingly seeking to aid the nostrum maker to exploit the profession, whose interests they claim to serve, continue to carry the deceptive and misleading advertisement of a twice exposed fraud?

How can any physician with a particle of self-respect or manhood continue to support, by subscription or contribution, any medical journal which, by accepting such advertising, allies itself with the army of deceit and chicanery?

Still Further Duplicity.

(*Abstracted from The Journal A. M. A., Feb. 8, 1908, 467.*)

When the Food and Drugs Act went into effect the manufacturers of this preparation, instead of continuing to put out the same mixture as they had been doing, radically changed the composition by substituting acetphenetidin (phenacetin) for acetanilid. By doing this the company avoided the disagreeable necessity for acknowledging on the label that the nostrum contained acetanilid, as was shown by the analysis published in THE JOURNAL, June 3, 1905. In addition to stating that the package of antikamnia contained acetphenetidin, the company also stated that it contained no "acetanilid, antifebrin, antipyrin, alcohol, morphin, opium, codein, heroin, cocain, strychnin, chloroform, cannabis indica, or chloral hydrate." Knowing that the nostrum is being advertised in Great Britain and Canada as well as in the United States, THE JOURNAL obtained some Antikamnia from London, and it was analyzed in the Association's laboratory. As was suspected, the analysis showed that Antikamnia as sold abroad has the same composition now as it had in the United States before the Food and Drugs Act went into force, viz.: Acetanilid, 67.75 per cent.; caffein, 4.88 per cent., and citric acid and sodium bicarbonate, by difference, 25.36 per cent. This corresponds with the analysis previously made and published in THE JOURNAL, June 3, 1905. The Antikamnia on the market in this country was also analyzed and it was found to contain: Acetphenetidin (phenacetin), 72.05 per cent.; caffein, 13.95 per cent.; citric acid and sodium bicarbonate, 14 per cent. The preparation sold as "Antikamnia and Quinin" was also analyzed, and it was found that starch had been substituted for the bicarbonate of sodium which is found in the Antikamnia itself. The details of the analyses are given with the following comments: "The above are brief statements of bald facts. Two of these should be emphasized: (1) When the Food and Drugs Act went into force, January, 1907, the manufacturers of Antikamnia, rather than acknowledge the truth of the past —we can imagine no other reason—materially and radically changed the composition of their preparation, and did this without notifying the medical profession or intimating in any way, so far as we can learn, that such a change had been made. We have no doubt they believed they had a right to do as they pleased with their own; that it was nobody's business but theirs what they did with their own preparation, or how they changed it. As they never had told physicians what it contained, there was no reason why they should do so now. This is logical, and we can not blame the manufacturers so long as

the medical profession is willing to be humbugged. (2) For the same reason, we presume, they claim that they have a right to continue to use acetanilid in the product for the foreign market. The Food and Drugs Act applies only to the United States, of course, and acetanilid being cheaper, why not use it? What is the difference if one is more dangerous than the other? The fact that the Antikamnia sold abroad differs from that sold in this country some may say is of no special interest to us. Still this fact is worth noting: The dose of acetphenetidin—phenacetin—(7½ grains) is nearly double that of acetanilid (4 grains); one becoming accustomed to a certain dosage of the nostrum as sold in this country might, while abroad, unwittingly be led to take a double dose of acetanilid.

Samples, Form Letters and "Prescriptions" Sent to the Laity.

(*From The Journal A. M. A., April 18, 1908, 1281.*)

To the Editor:—The enclosed "literature" is being sent broadcast to the laity by the Antikamnia people and still a great many of the physicians throughout the country are prescribing the preparation thus advertised. Will the time ever come when the medical fraternity will awaken to the fact that it has been humbugged by a great many manufacturing concerns? I certainly hope so.

J. W. DuVal, M.D., Wichita Falls, Texas.

Comment:—The "literature" referred to by our correspondent consists of a form letter and a small pamphlet. The letter reads as follows:

Dear Mr. ————:

Do you ever suffer pain? If so, try Antikamnia Tablets; Sample enclosed. Your druggist will supply them in any quantity (10 cents worth or more), also in our regular "Vest-Pocket Boxes." Sincerely yours,

The Antikamnia Chemical Company.

The pamphlet accompanying the letter is entitled "Practical Prescriptions," and contains a list of diseases and morbid states arranged alphabetically from "Alcoholism," "Asthma" and "Backache" to "Wind," "Women's Pains" and "Worry." For the one hundred and twenty-two conditions listed, "Antikamnia," "Antikamnia and Codein" or "Laxative Antikamnia and Quinin" are prescribed, demonstrating that the "prescriptions" are more "practical" than scientific.

In many respects the methods of the proprietors of "headache powders" and "anti-pain pills" are less offensive to one's sense of professional decency than the course pursued by the Antikamnia people. The former have at least never recommended their products as "ethical proprietaries;" they have not used

medical men as their unpaid agents; the claims made for their products have been no more exaggerated; and they have not found it necessary, from the requirements of the Food and Drugs Act, to substitute acetphenetidin for acetanilid to avoid giving the lie to their former claims.

As to the query propounded by our correspondent: We are optimistic enough to believe that the time he longs for is already here. The fact that the proprietors of nostrums of the Antikamnia type are finding it necessary to advertise to the laity is, in itself, evidence of the diminishing demand for such products on the part of the medical profession.

ARHOVIN.

A Proprietary in Process of Evolution.

(*From The Journal A. M. A., May 9, 1908, 1541.*)

The German product iodofan was referred to recently[1] and attention called to the discrepancy between the facts, as determined by analysis, and fiction, as represented by the manufacturer's description. Instead of containing nearly 50 per cent. of iodin, as represented, it actually, according to the analysis, has less than 5 per cent.—a remarkable variation! Another preparation of this same firm is arhovin which, unlike iodofan, has been on the American market some time. This product seems to be in an evolutionary state with regard to its composition. According to the descriptive advertising matter sent out a few months ago by the American agents, arhovin at that time was a "thymyl-benzoate of diphenylamine." This description is eminently scientific—providing it is true. Possibly because such a specific description could be challenged with comparative ease, the "literature" sent out a little later described the product as a "chemical compound of diphenylamine, thymol and benzoic acid." This, of course, is less definite and would be proportionately harder either to prove or disprove. The latest description (or the latest we have seen) gives even greater opportunities for "hedging" should that be necessary. Here we find that arhovin "consists of diphenylamine and thymol-benzoicacid-ethyl-ester in *molecular* proportions." [Italics ours.—Ed.] Thus in its evolution from the atomic to the molecular and from the specific to the general, we may confidently expect before long to hear that this much advertised "synthetic" has become a mere mixture.

Firms of the better class are beginning to recognize the unwisdom of jeopardizing their reputations for commercial in-

1. The Journal A. M. A., March 7, 1908, 784.

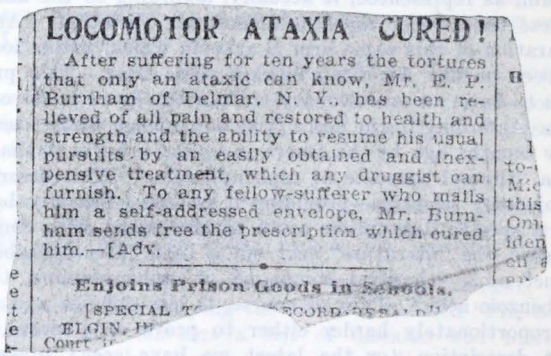
tegrity by standing sponsor for the wildly unscientific statements put out by some of the foreign pharmaceutical manufacturers. This will result in the weeding out of the valueless foreign products and in saner descriptions of those which may become valuable therapeutic agents.

BIOPLASM.

A Concrete Instance of the Manner in Which Remedies Supposed to Be Ethical Are Exploited to the Laity.

(*From The Journal A. M. A., Dec. 9, 1906.*)

The accompanying advertisement has been appearing in the newspapers for some time, and its resemblance to the old advertisement of the "Rev. Joseph T. Inman" of lost-manhood fame, aroused the curiosity of a member of THE JOURNAL force—or it may have been an innate desire to keep in touch with things. In any event, he, as a layman, answered the advertisement, and, in due time, an imitation typewritten letter was received. In it was rehearsed the old, old story of how the writer had for years suffered the tortures, etc.,



LOCOMOTOR ATAXIA CURED!

After suffering for ten years the tortures that only an ataxic can know, Mr. E. P. Burnham of Delmar, N. Y., has been relieved of all pain and restored to health and strength and the ability to resume his usual pursuits by an easily obtained and inexpensive treatment, which any druggist can furnish. To any fellow-sufferer who mails him a self-addressed envelope, Mr. Burnham sends free the prescription which cured him.—[Adv.

Enjoins Prison Goods in Schools.

[SPECIAL T... RECORD-HERALD]

ELGIN, Ill.

how he had tried all kinds of physicians, all kinds of patent medicines, serums, various climates, etc., until he heard of the virtues of the medicines which finally cured him. Accompanying the circular letter was a sheet containing the prescription, with full directions. But it was not the "Rev. Joseph T. Inman" trick in all its apparent simplicity; it was Inman improved. Here is the first prescription: "Bioplasm (Bower) series No. 235a, No. 212, in sealed bottles; 2½ oz., containing about 175 tablets, cost $1.50." Then followed the directions. Farther down the sheet is the second preparation, which is:

"Sal Lithin. Take a heaping teaspoonful," etc. Bioplasm! Sal Lithin!! Certainly we have seen these names before. "These prescriptions may be had of almost any druggist. If not, send to the manufacturers, Bioplasm Company, 100 William Street, New York."

Of course! We pick up certain medical journals and find that "Bioplasm" and "Sal Lithin" are "ethical proprietary" preparations, put up for physicians' use, for are they not advertised in medical journals? We wondered whether or not the Bioplasm Company was aware of the generous work that E. P. Burnham is doing, but this wonder only lasted ten days, for then came a letter from the company itself, with circulars, testimonials and other literature, all appealing directly to the credulous laymen, and especially to those suffering from that terrible affliction, locomotor ataxia. Of course, the literature said that bioplasm is endorsed by physicians, and, in fact, testimonials from medical men were among the literature sent to this layman by the company.

We shall have something more to say about this wonderful cure-all, bioplasm, in the immediate future.

Claims Made for Bioplasm.

ITS COMPOSITION.

The circulars sent out by these people bear evidence of having been written by persons who are either densely ignorant of the subject on which they write or decidedly unscrupulous. A glance at the following quotations taken from these circulars shows very clearly of what a mass of absurdity and contradiction they are composed:

> "After a careful extraction under aseptic methods the enzymes are treated by a process which unites them, creating a new product or ferment which resembles closely the bioplasm of Dr. Lionel S. Beals. . . . There is in bioplasm the several enzymes[1] (ferments) of digestion which include nuclein, lecithin, trypsin, etc."

In another circular we are told:

> "Bioplasm is produced from the digestive and ductless glandular organs of young herbivorous animals, but it essentially differs from the glandular extracts and nuclein preparations. . . . The defibrinated products after cultivation are desiccated and finally triturated with chemically pure sugar of milk. The exceptional therapeutic virtue of bioplasm is chiefly attributed to the compound element acquired by the process of cultivation described. It positively contains nothing besides the

1. We quote spelling and grammar exactly in all these extracts.

organic products stated, the vegetable ferments being no longer used."

Of course, intelligent physicians know that there is no process by which digestive enzymes may be united, creating a new product of a ferment nature. In the circular we also find this positive statement:

"Bioplasm contains absolutely nothing besides the organic products stated, and its marvelous curative properties reside in the basic ferment resulting from action of the 'mother substance' of the several digestive ferments upon each other."

We learn from another circular:

"Bioplasm . . . non-toxic preparation of animal and vegetable enzymes so compounded as to preserve their original cell vitality."

Note we have just quoted that the vegetable ferments are no longer used, and that only the organs of young herbivorous animals are utilized. The enumeration of nuclein and lecithin as digestive enzymes is sufficient to show that the writer of the circular knows little of the subject on which he has written.

ITS THERAPEUTIC CLAIMS.

The therapeutic claims made for this cure-all are as grotesque and as absurd as are those which are made regarding its composition. It would be wearisome to enumerate all the diseases which it is claimed to cure, but a few taken at random will not be out of place:

"Equally efficient in morbid obesity and emaciation." "A fatal epidemic of diphtheritic toxemia in West Virginia was checked only when Bioplasm was used."

Here is what appears on the label as it is sold in the drug stores:

"Indications: All neuroses or other disorders in which assimilation and metabolism are faulty. Most prompt and powerful restorer of leucocytes and phagocytes, immunizing by strengthening bactericidal properties of blood. Unique as neuro-nutrient and blood builder, invaluable in Tuberculosis, Typhoid, Scarlet and Malarial Fevers; in Diphtheria, Pneumonia, La Grippe, Dysentery, etc.; prompt specific in all forms of indigestion, unequaled in Locomotor Ataxia, in Pelvic diseases of women and convalescence."

It may be interesting for physicians who are prescribing bioplasm to have quoted for their edification some of the testimonials from the laity:

BROMIDROSIS (OFFENSIVE PERSPIRATION).

"'I found relief in a short time after beginning Bioplasm, more noticeable to others than myself. I think it

is due to say that, while I was taking it, I used no other remedies.'"

"IMPOTENCE."

"I became incompetent at the age of 45, as a result of a long nervous strain from overwork and unusual responsibility. For four years I have tried many doctors and many remedies, including the rest cure, with some improvement in my general health, but none in my functions. I was gradually drifting towards melancholia, when a physician advised me to try Bioplasm. I did so faithfully, and inside of a week noticed a change in my feelings. My depression disappeared and my ambition returned, and gradually all my powers and functions were restored to me. I used nothing but Bioplasm, except an occasional aperient. In my whole vigorous life I was never better in every way than I am now—and I consider myself a perfect man, thanks to Bioplasm. This should be made known to the million sufferers, such as I, and you may use this as you see fit."

"INFANTILE INDIGESTION."

. . . "We had no more trouble with baby after using that sweet powder (Bioplasm), which she took greedily, and the only medicine you have prescribed which we have not had a struggle with her to take. The relief from suspense is great, I assure you." . . .

A WONDERFUL CURE.

Among the diseases in which Bioplasm seems to get in its work most effectively is tuberculosis, and if one-tenth of what the literature claims for it were true, consumption would soon be a thing of the past. Here is one instance worth recording: A certain physician reported one of the most rapid cures ever effected. His patient had night sweats that were very bad, had been to Colorado, "has taken all patent medicines on the market," his previous physician gave him up and said he could not live through the winter; nine physicians had treated him and given him up, assuring him that his days on earth were few.

This is enough to show that the poor patient was in the very last stage, and yet a miracle was performed, for after giving the Bioplasm for a week the testimonial says:

"The change in my patient during the seven days of treatment is most remarkable. The night sweats have ceased. The appetite has improved, and the condition of the lungs has improved to such an extent as to make me sanguine where I have been utterly hopeless. . . . Doctor, I feel like a new man. My strength is rapidly returning, and all I want now is a little more time and Bioplasm, and Bio will put me on a sound basis for the

enjoyment of life, and a happy old age—a living chagrin to the many physicians who have been pointing me to the grave."

But there is another side to this bright picture. Before us is correspondence to the effect that the patient died soon after this testimonial was written. The doctor who reported the remarkable cure had been in practice but a little while. He evidently imposed on himself, and in a recent letter he expresses regret that he wrote as he did. It is for this reason that we omit his name. In a letter recently received he says:

"Yes, I have used Bioplasm a number of times since with absolutely no results. . . . I was very enthusiastic at that time and it is certain that I would not attach such value to the treatment as at the time mentioned. When I wrote to the Bioplasm people, it was simply with the hope that their product might be of value to those afflicted with tuberculosis."

LOCOMOTOR ATAXICS CURED.

The following letter from one whom we will call X, as we do not care, under the circumstances, to publish his name, is one of the bits of literature that is doing good work for Bioplasm:

———, June 9, 1905.

Bioplasm Company, 100 William Street, New York City:

Gentlemen:—Your inquiry about Mr. R.——, the tabetic patient from Mexico, who has been taking Bioplasm for some seven or eight months, I want to answer briefly, so as to cover the ground.

Mr. R—— is about 45 years old, rather frail all his life. . . . Something less than a year ago he began to experience trouble with his legs and general health . . . and on consultation with doctors was promptly pronounced a tabetic, having almost all the classical symptoms. His people here came to me, asking what to do. I could only advise Bioplasm. This was begun as soon as he could get a supply from you, in the meantime being treated with strychnin, massage, and so forth. . . . No improvement. Soon after beginning Bio, felt better. Five or six months ago he came here. When he arrived he could not get on a street car. To see him walk was agony. Soon he was taken to the cars with an attendant. Shortly after he was going around alone. Took long walks. Got better every day. He called on me yesterday, and upon inquiry said: "The padded sensation of soles still present to some degree, and knee-jerk absent. Aside from these, I consider myself a well man." He looks well, feels well, walks well, and as far as can be told IS well.

Could all ataxics see this case as I have seen it, they would send in such a blast for Bio that you would flee

from it. Doubtless, "things seen are mightier than things heard" (of), and there are so many "cures" reported that, like miracles, dwindle at short range, that one more or less will not count for much—in print. But I have seen this, and I believe.

Since coming here Mr. R—— has taken Bio constantly, and also has had massage twice a week. No other treatment, except that he has been going through some of the kicking for "re-education."

Yours very truly, ——, M.D.

A physician in Kansas wrote to the Bioplasm people, asking them to give him the names of some reputable and well-known physicians who had used Bioplasm with the success that was claimed for it. In reply the Bioplasm people said:

"We take pleasure in referring you to Dr. X, whose letter we enclose herewith (see above), and who is well known and highly esteemed in ———."

We had already written for information in regard to Dr. X and received a reply to the effect that no such physician was practicing in ———. On receiving the communication from our Kansas correspondent we again tried to get information in regard to Dr. X, which resulted in the following letter just received from our investigator:

In regard to Dr. X, of whom you wrote me a few days since: He graduated from ——— years ago; he suffers from locomotor ataxia, and can only get around in a wheel chair; he is a deaf-mute, and has been in that condition for ten years; he has not practiced any for twelve years; he has no license in this state or county. He uses Bioplasm himself, and thinks he derives benefit from it. He says that he only recommends it from his personal experience. Dr. C. is his attending physician and has charge of him in a general way. Dr. C. says that he is a perfectly innocent, well-meaning, broken-down man.

We have followed up several other testimonials and it would make interesting reading if we had space to devote to a record of the results of the investigation.

One physician from Pennsylvania writes:

"I am glad that Bioplasm is finally being exposed. About two years ago the Bioplasm people imposed on we younger physicians by giving us testimonials and ending with selling us five bottles of their dollar size for $2.50. I dispensed an entire bottle with no effect whatever in any of its so-called usages. The other four I have still as a reminder of my folly. A few days ago a 'locomotor ataxic' told me of his wonderful new cure or 'sure cure' and behold it was Bioplasm, which he got direct from the firm with their wonderful 'epitome.' He had just run

out of his '175 tablets for $1.50,' and wanted to get some more."

When some great disaster overtakes a community and the dead and dying lie scattered about, fiendish ghouls steal forth to despoil the dead and the helpless. By common consent such loathsome creatures are usually ordered shot when found at such work; but with what words can we characterize those still more loathsome creatures who scent quarry in that vast army of the sick and miserable, who, loath to acknowledge the presence or approach of the king of terrors, turn to those who speak them fair with bright promises of succor while they rob them of a few dollars and, far worse, ofttimes of the one chance of help which medical science affords? And what shall be said of physicians who, consciously or unconsciously, aid in such a despicable business?

Bioplasm's Originator.

An instructive and yet pathetic incident relative to this nostrum was revealed in the death of Dr. Peter Manuel Wise, which occurred Sept. 22, 1907. Dr. Wise, it is understood, was the originator, and for some years the most important factor in pushing the sale of, Bioplasm. In one of the numerous form letters sent out by him, he said: "You can depend on it, Doctor, that if Bioplasm is taken properly by a tabetic, for not less than four months, his disease is permanently checked." Dr. Wise died a tabetic. Surely Fate in her unkindest moods never perpetrated a more ghastly irony.

BROMIDIA.

Deaths from the Use of the Remedy.

(*From The Journal A. M A., April 21, 1906, 1221.*)

Dr. Horatio C. Wood, Jr., Philadelphia, writes:

One of the deleterious results of using proprietary mixtures even when the formula is known is that the physician gets in the habit of thinking of the mixture as a remedial entity, instead of a combination of active ingredients, and is thereby led to use this combination in cases in which he would have avoided the individual drugs making up the mixture. The following item is taken from the Philadelphia *Evening Telegraph*, February 13, and also appeared in several New York papers; it preaches an eloquent but pathetic sermon on this subject:

> Within an hour after his father, a Brooklyn physician, had given him a dose of bromid, H. G. P., a prodigal son, died yesterday at his father's home in Brooklyn. Two years ago, when he appeared to have sown his wild oats,

the father made him superintendent of his country place, near Grants Mills, Delaware County. A week ago the son left his place, and at 1 o'clock yesterday morning appeared at his father's Brooklyn home. He was nervous, and at 9 a. m. begged for a sedative.

"I prescribed the usual quantity of bromidia," the young man's father told a reporter. "He was weak and had suffered from weak heart and kidney trouble for some time."

An hour later the father found the son dying and administered restoratives, but to no avail.

In an article published in THE JOURNAL, June 10, 1905, page 1836, I quoted in regard to bromidia the remarkable statement of the manufacturers that it is "the safest hypnotic known," and questioned how the addition of potassium bromid and tincture of hyoscyamus could overcome the depressant action of the chloral, which is the active ingredient of this nostrum. If the physician had thought of his bromidia as a solution of chloral rather than as a solution of bromid he probably would have hesitated before using it in an alcoholic case.

The following appeared in the Bangor (Me.) *Commercial*, March 8:

"Frank H. Perkins, a newspaper reporter of Plymouth, Mass., was found dead in a room in a hotel in Augusta, Sunday. The coroner stated that death was due to bromidia poisoning, but whether the drug was taken accidentally or with a suicide intent is a matter of conjecture. Perkins was a newspaper correspondent in Plymouth for 22 years. He left a few weeks ago to accept a position on the city desk of the Kennebec *Journal*. While a resident of Plymouth, he was correspondent for a number of Boston papers, and in recent years was connected with the Plymouth *Observer*. He was 55 years old and unmarried. It is understood that his nearest surviving relative is an aunt in Middleboro."

The above item was sent to Dr. O. C. S. Davies, Augusta, with a request that he send us a more complete report of the case. In his reply Dr. Davies stated that Mr. Perkins had at one time been an inmate of an inebriates' home and that he had gone to Augusta to do newspaper work, but had been unable to hold the position because of his condition. Dr. Davies, in his letter, says: "When the body was found, there were eleven one-ounce bromidia bottles about the room or on his person. Nine were entirely empty and the other two were about half full. None of these bottles indicated that they had been purchased on a physician's prescription, only the druggist's label marked 'bromidia' being on them."

BROMO-SELTZER.

Its Composition and Some of Its Effects.

(*From The Journal A. M. A., Sept. 29, 1906, 2158.*)

In response to requests for information regarding the composition of bromo-seltzer, we had the preparation analyzed. According to the analyses, 100 parts of the effervescing salts contain:

Potassium bromid	10.53 parts.
Acetanilid	4.58 parts.
Caffein	1.20 parts.

Assuming an average dose of the preparation—a teaspoonful—to weigh 76 grains (5.0 gm.), each dose would contain:

Potassium bromid	7 grains (0.5 gm.).
Acetanilid	3 grains (0.2 gm.).
Caffein	8 grains (0.05 gm.).

Since a half ounce of this preparation is often taken at a dose, and since many, especially women, are taking it daily, it is anything but "harmless."—THE JOURNAL, Feb. 10, 1906, p. 454.

A case of poisoning from this preparation was reported by Dr. D. T. Quigley, North Platte, Neb., in THE JOURNAL, Feb. 10, 1906, p. 454.

Dr. W. J. Robinson, New York, reported a case of impotence following the excessive use of this nostrum.—THE JOURNAL, Aug. 18, 1906, p. 508.

Dr. H. B. Hemenway, Evanston, Ill., reported the death of a woman, aged 31, from acetanilid poisoning caused by taking bromo-seltzer.—THE JOURNAL, Dec. 29, 1906, p. 2158.

BUFFALO LITHIA WATER.

It Is Now an "Alkaline Diuretic."

(*From The Journal A. M. A., Sept. 12, 1908.*)

CHICAGO, Aug. 10, 1908.

To the Editor:—A few weeks ago the representative of the Buffalo Lithia Water called on me at my office. In discussing the merits of the water, I called his attention to the fact that it contained merely a trace of lithium. He replied that they made no claim for it as a lithia water, but sold it as an alkaline water which the physician might prescribe as he saw fit. He said that the name was selected simply to distinguish it from the host of other mineral waters. If my memory serves me correctly, this constitutes a remarkable change of front on the part of the promoters of this widely advertised

mineral water. Not long ago it was highly vaunted as a uric acid eliminant depending on its content of lithium for its therapeutic action. Doubtless many physicians during the last twenty years have prescribed gallons of this water, sometimes for patients who could ill afford to pay for it, on the supposition that it contained lithium, and was, therefore, a valuable remedy against uric acid. What is the reason for the abandonment of this claim on the part of the proprietors? Is it because, following closely the advance of medical science as they must, they have learned that lithium is no longer regarded as a uric acid eliminant? Or have they learned for the first time from the government analyses that their water contains practically no lithium? The claim that the water is an alkaline water is no better supported by facts than that it is a lithia water. This also they can learn from the government report if they will read it carefully. The alkaline theory will doubtless serve its purpose until attention is called to the fact that it is a calcic saline water. It will be interesting then to learn what quality will next be invoked to sell it. It seems as if it is time that physicians should awake to an appreciation of the need of caution in accepting the claims of those who have mineral waters to sell. There is as much need for supervision here as in the case of proprietary remedies.

* * * *

COMMENT:—Were it not for the tragic element it would be ludicrous to note the way in which manufacturers and proprietors of medicinal agents adjust themselves to varying conditions. Adaptation to environment is the essential element for success. This is illustrated by the facts brought out by our correspondent in the above letter.

When Buffalo Lithia Water was first put on the market uric acid was the scapegoat on which most of the sins of etiologic ignorance were heaped. Contemporaneous with, and in a sense a corollary of, the uric acid fallacy was another hypothesis, viz., that lithium was the uric acid eliminant *par excellence*. The proposition, therefore, was a simple one: Uric acid causes disease; lithium eliminates uric acid; *ergo*, Buffalo Lithia Water, because it contains lithia, eliminates disease. Q. E. D.

The result of these two theories, combined with skilful advertising on the part of the proprietors, made Buffalo Lithia Water a valuable piece of property. "The mills of the gods grind slowly," but finally government and other chemists, with small appreciation of the psychic and commercial value of the name, demonstrated that Buffalo Lithia Water con-

tains but the merest trace of lithium—an amount almost as small as the hypothetical gold in a widely advertised liquor cure.

Now, therefore, it is an "alkaline diuretic." While government analysts dispute the claim that it is an alkaline water, yet its proprietors may rest assured that the statement regarding its diuretic properties is beyond contradiction, for water of any kind is the simplest, surest and most universal of diuretics. It may be noted in passing that the more recent advertisements refer to Buffalo Lithia Springs Water instead of Buffalo Lithia Water. This is a distinction with a difference and the change in title has probably been brought about by that great agency for comparative righteousness in advertising—the national Food and Drugs Act!

CAPUDINE.

Another of "The Subtle Poisons."

(From The Journal A. M. A., Oct. 17, 1908.)

A great many inquiries reach the Association's laboratory regarding various nostrums and "patent medicines" with requests for analyses, but the number of preparations thus brought to notice is so great that it would take an army of chemists to satisfy all inquiries. As it is, only such preparations are examined as will serve as examples of a class of nostrums which it is desired to expose or that are of special interest to the profession. Hicks' Capudine Cure—or as it is known to physicians "Elixir Capu-Hicks"—is one of such examples, and its investigation has been deemed advisable.

MANUFACTURERS' CLAIMS.

The manufacturers—the Capudine Chemical Company, Raleigh, N. C.—issue two kinds of advertising pamphlets—one for physicians and another for the public. The medical profession is told that Capudine is

> "especially recommended for the relief of all headaches, colds, la grippe, neuralgia, sick headache, nervous headache, acidity, flatulency, and indigestion pains, also for dysmenorrhea, after pains, etc."

A formula of the type that usually accompanies preparations of this character is given:

> "Elixir Capu is composed of the combined Bromids of Potassium, Sodium and Ammonium, Caffein, Capu, Elixir Peppermint, Adjuvants and Correctives, Syrup and water, q. s."

To elucidate further and for the information of those who have never heard of the substance capu, we are told:

"Capu is a cellulin product—Chemical formula $C_{18}H_{20}N_2O_4$ possessing very powerful analgesic properties and is a mild antipyretic."

In a "Laundry List" pamphlet extolling the virtues of the remedy, the public are informed that

"Hicks' Capudine CURES all headaches, indigestion, la grippe, colds, etc."

"No remedy ever placed before a suffering mortal has the wonderfully quick curative powers of Capudine."

"Hicks' Capudine is not a 'dope'; will not produce a habit."

"Try this splendid remedy and enjoy life once more."

"Capudine is a liquid, acts immediately and is sold by dose at soda founts, and in 10, 25 and 50c bottles at drug stores."

LABORATORY FINDINGS.

Capudine (whether in the form of Elixir Capu-Hicks, or as Hicks' Capudine Cure) is a brown, rather syrupy liquid, slightly alkaline to litmus, with an aromatic odor and a salty taste. Besides 8 per cent. of alcohol, Capudine was found to contain sugar, aromatics, chlorids, caffein, antipyrin and salicylates. Quantitative estimations demonstrated the presence of about 1.25 gm. (19 grains) of antipyrin and caffein to each fluid ounce, and salicylates equivalent to about 0.9 gm. (14 grains) of salicylic acid to each fluid ounce. Thus Capudine depends for its action principally on antipyrin.

COMMENTS.

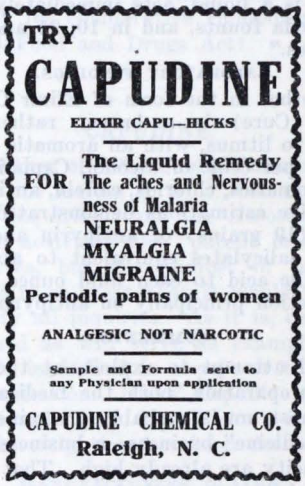
As a barefaced attempt to exploit, at the same time and with the same preparation, both the medical profession and the public, this nostrum is probably preëminent in the annals of the "patent medicine" business—a business whose claims to deceit and mendacity are already high. That medical journals should aid and abet such methods would seem unbelievable. Testimonials are forthcoming, of course. In the pamphlet to the laity, these come from the butcher the baker and the candlestick maker, while in the "literature" to physicians, at least some of the testimonials—"case histories," if you please! —come, it is needless to say, from our old testimonio-maniac friend, W. T. Marrs,[1] M.D., of Peoria Heights, Ill. As Dr. Marrs has recommended, at various stages of his literary career, such remedies as Neurilla, Antikamnia, Bromidia, Chionia, Arsenauro, Cactina Pillets, Thialion, Phenoseptine, Papine, Calcidin and others too numerous to mention, his opinion regarding Capudine must be considered authoritative. Dr. A. S. Reed of Naples, Maine, also details a "case history" in which the marvelous results achieved by the administration

1. See THE JOURNAL, March 14, 1907, p. 897.

of Capudine are surpassed only by the still more marvelous spelling and composition of the testimonial.

In the lay press we find Capudine extensively adverstised in the typical "patent medicine" style. In the "Laundry List" pamphlet, previously referred to, which goes direct to the public, there are graphically portrayed some of the conditions in which Capudine is indicated.

For the purpose of determining the attitude of the Capudine Chemical Company regarding its policy of combining the "patent medicine" and "ethical proprietary" business in one and the same preparation, a Chicago physician wrote, asking if it made any particular difference whether he wrote a pre-



Reproduction (reduced) of an advertisement of Capudine in a medical journal (*Medical Summary*). In this way the physician is reached.

scription for Elixir Capu-Hicks or told his patients to go to the drug store and ask for a bottle of Hicks' Capudine Cure. The Capudine Chemical Company rose gracefully to the bait and swallowed it hook and line. The answer, dated Sept. 28, 1908, is so ingenuous and enlightening that we give it almost in full. For the purpose of emphasizing certain passages we have employed italics and small capitals:

> "We use the name Elixir Capu-Hicks so that doctors can write for it and have their prescriptions filled *without the consumer knowing that it is the same thing as the advertised product.* A great many of our doctor friends prefer this.

"In regard to the cost to the druggist it is the same and we presume that MOST DRUGGISTS DISPENSE CAPUDINE BY THE DOSE OVER THE COUNTER AND ELIXIR CAPU-HICKS ON PRESCRIPTION FROM THE SAME ONE-PINT OR ONE-GALLON BOTTLE OF CAPUDINE, WHICH IS PERFECTLY ALL RIGHT. [! !] Though some of our drug friends buy it labeled as Elixir Capu-Hicks specially for their prescription trade."

"Perfectly all right" indeed! What though you deceive your patient, stultify yourself and use your druggist as a catspaw; just so you increase the sale of Capudine it "is perfectly all right"—for the Capudine Chemical Company.

The formula furnished physicians is, of course, a joke. The various ingredients given—without quantities—are, with the

Reproduction of an advertisement to the public appearing in a religious publication, the *Baptist Flag*. This paper, to which we have referred before, expatiates on the need of pure reading—in its editorial pages—and exhibits filthy indecencies—in its advertisements.

exceptions of Capu, well-known drugs. Capu is not so well known; in fact, its circle of acquaintances is limited to the Capudine Chemical Company. According to the company (and if it doesn't know, who does?) "capu is a cellulin product—chemical formula $C_{18}H_{20}N_3O_4$." This looks abstruse and scientific, and doubtless in many cases prevents further impertinent and awkward questions. The description only lacks one thing to prevent it qualifying for an honored position in the hall of fakes—a "structural formula" of weird and impressive design. The great unknown—Capu—is, of course, as the analysis demonstrates, our old friend antipyrin. On the "literature" furnished physicians and on the advertising distributed to the

public, great stress is laid on the fact that Capudine "contains no acetanilid." This puts the nostrum in that dangerous class of "patent medicines," increasingly common of late, in which a heart-depressing drug is present, but one, unfortunately, which

Diagnosis and treatment in the home! Reproduced from the "Laundry List" pamphlet sent out to the public.

the Food and Drugs Act does not require to be specifically named on the label. Mr. Adams in the "Great American Fraud" series says, in speaking of the labels on "patent medicines:" "If the words 'warranted harmless' appear any-

FUNERAL OF MRS. WINBURN.

Her Death Was Due to Overdose of Capudine.

Covington, Ga., September 14.—(Special.)—The sudden death of Mrs. Joe Winburn, at Mansfield yesterday, was due to an overdose of capudine for periodical headaches. She was the wife of Rev. Joe Winburn, Baptist pastor at Mansfield, and leaves five small children, the oldest being 9.

Reproduction from the Atlanta (Ga.) *Constitution*, Sept. 15, 1908, which gives the lie direct to the statement that Capudine "does not contain poisonous drugs."

where, look twice over for the Ethiopian in the woodpile." We would say if the words "contains no acetanilid" appear on the label of any "headache cure," it is a safe guess that some other equally dangerous heart-depressant is there in its place. The statements that (1) "Hicks' Capudine is not a

'dope'"; (2) "does not contain . . . poisonous drugs," and (3) "will not produce a habit," are three separate and distinct falsehoods. As to its "harmlessness," a telegram that appeared in the Atlanta (Ga.) *Constitution*, which we reproduce, refutes briefly but tragically, this cruel lie. Dr. E. W. Warren of Palatka, Fla., reports the case of a woman who was thought to have been murdered, but the state's attorney concluded that her death was caused by too much Capudine.

And this hybrid "'patent medicine'-proprietary" is to be found advertised in medical journals! How much longer will the medical profession put up with it?

CHINOSOL.

A Mixture Advertised as a Definite Chemical Compound.

(*Abstract from The Journal A. M. A., Jan. 25, 1908, 293.*)

In the circulars issued to physicians Chinosol is said to be a remarkable antiseptic, germicide, disinfectant, and deodorizer, perfectly safe for external use and in proper dosage for internal use. It is also said to be free from the dangers of poisoning, yet far more prompt and efficient than carbolic acid, corrosive sublimate, lysol, formol, creolin, saprol, or any other product thus far discovered. The Council's report states that the statement that Chinosol is free from danger of poisoning is questioned by Weyl, in an article in the *Viertel jahrschft. f. gericht. Med.*, xxxiv, No. 3, in which this investigator states that administered to rabbits Chinosol produced symptoms and lesions similar to those of lysol and creosol. Weyl's article concludes as follows: Chinosol, when given by the stomach, is as poisonous for rabbits as lysol, if not more so; given subcutaneously, it is 100 per cent. more poisonous, but when absorbed by the peritoneum it is 50 per cent. less poisonous than lysol. The report of the Council also includes the report of a bacteriologist which disproves the extravagant claims made for the bactericidal powers of this preparation.

> Tests were made with two organisms: *Staphylococcus pyogenes aureus* and *Bacillus typhosus*. These organisms were selected because they are mentioned repeatedly in the circular accompanying the package. The first series of tests were made for the purpose of demonstrating the antiseptic or preservative action of Chinosol. For this purpose, solutions of Chinosol of varying strengths in neutral bouillon were inoculated with the test organisms and the presence or absence of growth after a period of incubation of at least four days was noted.

The results of these tests as shown from the table confirm the statements made in the circular that Chinosol in a strength of 1 to 15,000, 1 to 4,000 and 1 to 200,000 arrests or prevents the growth of *S. p. aureus*. The antiseptic action with reference to the typhoid bacillus is not as pronounced since a good growth was obtained in bouillon containing 1 to 20,000 of Chinosol. The statement in the circular that, according to Vogelius, the typhoid bacillus ceases to grow in a Chinosol solution of 1 to 20,000 is not confirmed, but this difference in results may well be due to varying experimental conditions.

The results given in Table 1 show that Chinosol does possess considerable antiseptic action and that in this respect it is superior to carbolic acid. On this point the statements in the circular are essentially correct. It is necessary, however, to draw a sharp line of distinction between the antiseptic or preservative action and the disinfecting or germicidal value. A substance may be a good preservative, but a very poor disinfectant, and such is the case with Chinosol. The germicidal action of Chinosol was tested on only *S. p. aureus* and *B. typhosus* and the results are not in accord with those ascribed to Palatschenko. Thus, while the circular sent out by the Parmele Pharmacal Company states that he found Chinosol solution 1 to 3,000 killed typhoid bacilli in one and one-half hours, it will be seen from tests given in Table 4 that 1 to 100 did not kill this organism in one hour.

The further statement in the circular that typhoid bacilli were destroyed in fifteen minutes with a Chinosol solution of 1 to 1,000, whereas carbolic acid was without any result is not substantiated by these tests since a carbolic acid solution of 1 to 100 has distinctly more injurious action than Chinosol in like concentration (Table 4).

The extravagant claims that Chinosol is five times as efficient as corrosive sublimate and 100 times as efficient as carbolic acid in destroying the pus organism can not be upheld. On the contrary, it is inferior to either of these agents. Similarly, the statement that *S. p. aureus* is killed by Chinosol 1 to 4,000 in fifteen minutes is offset by the fact that solutions of 1 to 200, 1 to 500 and 1 to 1,000 were without any germicidal action even at the end of one hour, when thick suspensions of the test organism were used (Table 2).

This examination shows that the inference that Chinosol prevents the growth of all organisms because of its marked action in the case of *Staphylococcus* is not justifiable. Neither is the assumption warranted that it possesses extraordinary

germicidal action because of its preventive properties in this one instance. As a matter of fact, it appears to be a poor germicidal agent, and the statements regarding its superiority over carbolic acid and mercuric chlorid are exaggerated, to say the least.

TABLE 1.—PRESERVATIVE ACTION OF CHINOSOL AND CARBOLIC ACID.[1]

	Chinosol.		Carbolic acid.	
	S. P. aureus.	B. typhosus.	S. P. aureus.	B. typhosus.
1 to 5,000.....	—	—	+	+
1 to 10,000.....	—	—	+	+
1 to 20,000.....	—	+	+	+
1 to 40,000.....	—	+	+	+
1 to 200,000.....	—	+	+	+

TABLE 2.—GERMICIDAL ACTION ON S. P. AUREUS (THICK SUSPENSION).

	Chinosol.			Mercuric chlorid.	Carbolic acid.
	1 to 200.	1 to 500.	1 to 1,000.	1 to 1,000.	1 to 100.
5 min....	+	+	+	—	+
15 min....	+	+	+	—	+
30 min....	+	+	+	—	—
60 min....	+	+	+	—	—

TABLE 3.—GERMICIDAL ACTION ON S. P. AUREUS (THIN SUSPENSION).

	Chinosol.		Carbolic acid.
	1 to 100.	1 to 200.	1 to 100.
5 min.....	—	—	—
15 min.....	—	—	—
30 min.....	—	—	—
60 min.....	—	—	—

TABLE 4.—GERMICIDAL ACTION ON B. TYPHOSUS (THIN SUSPENSION).

	Chinosol.		Carbolic acid.
	1 to 100.	1 to 200.	1 to 100.
5 min.....	+	+	+*
15 min.....	+	+	+*
30 min.....	+	+	+*
60 min.....	+	+	+*

In regard to the chemical composition of Chinosol, an abstract is first given of the investigations made abroad and then the result of the examination of Chinosol is appended as follows: "The results of the chemical examination of the specimens of Chinosol purchased in the open market agree with those obtained and reported by European chemists. It was found that barium chlorid precipitated, from a water solution of Chinosol, all the sulphur as barium sulphate. On determining the barium sulphate it was found that it represented, calculated to sulphate ion (SO_4) 33.10 per cent. of total weight

1. In the tables the sign + indicates a heavy growth, +* a slight growth, and — means no growth.

Chinosol, agreeing with the total sulphates 33.46 per cent., found by Sonntag (*Arend's Neue Arzeneimittel und Spezialitäten,* p. 121). The total nitrogen was found to be 3.80 per cent., also in accord with the work of Sonntag, who reports 4.08 per cent. All the potassium was found to be in the form of neutral sulphates and amounted to 30.70 per cent., confirming Sonntag's figure of 31.25 per cent. and 15.18 per cent. of the sulphates to be in combination as oxychinolin sulphate.

"From these figures it is seen that the analyses of Chinosol by different chemists agree and that they show that the sulphur present is in the form of sulphates and not in the form of sulphonates as claimed by the promoters of Chinosol, thereby disproving the statement that Chinosol is a definite chemical body and proving it to be simply a mixture of potassium sulphate and oxychinolin sulphate."

COD-LIVER OIL PREPARATIONS.

Fraud and Deception Connected with So-Called Cod-Liver Oil Preparations.

(*From The Journal A. M. A., Oct. 13, 1906, 1207.*)

The introduction of cod-liver oil as a supposedly easily assimilable nutrient and reconstructive was followed by its extensive use in wasting diseases, especially in phthisis, in the treatment of which it came to be considered almost essential, as it was supposed to possess some mysterious power different from that of other oils. Its unpalatable character led to various devices to render it tasteless and to make it more acceptable to the stomach. Emulsions containing the oil in mixture with other substances were put on the market and served a useful purpose. But the oily nature, imperfectly concealed, was disagreeable to many, and gradually other preparations appeared which attempted to retain the supposed therapeutic virtues of cod-liver oil while dispensing with its disagreeable character. This attempt has been carried to the extreme that in many of the cod-liver oil preparations now on the market the oil has been entirely eliminated and all that is left of the oil is the name. This is a species of fraud which has been tolerated too long, but which will be kept up so long as physicians are willing to be duped. Some of these articles are said to "represent" the oil and to possess all its virtues. Others are said to contain oil, while still others are stated to contain "all the valuable constituents." What is the standard by which we may determine the true value of these preparations and by which we may determine whether or not we, and through us our patients, are being humbugged?

A FOOD OR MEDICINE—WHICH?

Is cod-liver oil to be considered a food or a medicine? A food, certainly. As a food its value will consist in the fats it contains. These fats are more easily oxidizable and are considered more digestible than other fats because of the presence of compounds derived from the liver which favor its emulsification and enable it to penetrate the mucous membrane more easily than other fats. Aside from their nutrient properties we have no evidence that the fats of cod-liver oil possess any therapeutic value; if the oil possesses therapeutic qualities they must reside in its non-fatty constituents, and the activity of these non-fatty constituents is not acknowledged by those who have investigated them scientifically. Most pharmacologists believe that whatever virtue there is in cod-liver oil depends on its qualities as an easily assimilable fat.

On the whole, we must conclude with Cushny that "cod-liver oil has not been shown to have any action apart from that of an easily digested food, and its superiority to some other fats and oils has not been satisfactorily established."

If, then, the value of cod-liver oil depends on the presence of fat as its nutritive constituent, the amount of fat a preparation contains will determine the worth or worthlessness of such a preparation; at all events, a preparation claiming to represent cod-liver oil which does not contain fat in some form is fraudulent.

HOW TO PROVE OR DISPROVE THE PRESENCE OF COD-LIVER OIL.

Fats may be changed to fatty acids or to soaps, as occurs under the influence of pancreatic juice in digestion, and still retain their nutritive value, but it is not possible to manipulate them in any way so that they are still valuable as food, and yet do not respond to easily applied chemical tests which demonstrate their fatty nature.

Any preparation of cod-liver oil in which fat or fatty acid is not recognizable by proper tests is valueless as food, since its food value depends on the amount of fat or fatty acid present. An elementary knowledge of chemistry and the application of a few simple tests will enable any physician to learn for himself whether or not a preparation contains fat or fatty acids.

The preparations claiming to "represent" cod-liver oil are in liquid form, and if they contain oil it must be one of the following forms:

1. An emulsion of the oil which may be miscible with water, but from which the fat tends to separate and rise to the top. In this form the fat can be seen as globules under the microscope.

2. A solution, resulting from the saponification of the oil, containing a soap which usually will be alkaline in reaction, especially when mixed with water, and from which fatty acids are separated as a precipitate when the solution is acidified.

3. A solution of fatty acids. This will be acid in reaction and will be precipitated by the addition of water, in which the fatty acids are not soluble.

Waterbury's Metabolized Cod-Liver Oil.

To illustrate the testing of these preparations we may take Waterburys "Metabolized Cod-Liver Oil Compound," which, according to the label, "contains the metabolized product obtained by the action of ferments on cod-liver oil," with other ingredients. It is claimed that the oil has been "metabolized"* by the action of pancreatic juice. We would expect to find the fat in one of three forms mentioned above. Examination which any physician can make shows the following facts:

1. It is a clear liquid and no globules of oil are seen under the microscope. It is, therefore, not an emulsion.

2. It is of acid reaction when mixed with water and remains clear when strongly acidified. Hence it does not contain a soap, and is not a saponification of fat.

3. It mixes with water without precipitation; hence it can not contain more than traces of a fatty acid.

By these simple tests a physician is easily able to demonstrate that the preparation does not contain cod-liver oil. It is, therefore, valueless for the purpose of nutrition, for which we give the oil. More careful analysis confirms the results of these tests and shows that it contains no fat or fatty acids (except the merest traces); one or more bodies with alkaloidal reaction may be extracted from the compound with ether after adding an alkali. No intelligent physician should be misled by the extravagant and unfounded claims made for this preparation.

---

* The use of the term "metabolized" is by a manufacturer's license and does not correspond to that of physiologists or of the dictionary, which defines metabolism as the "act or process by which on the one hand dead food is built up into living matter, and by which on the other hand the living matter is broken down into simpler products within a cell or organism." It can not properly be used to describe a process occurring outside the body unless the manufacturers have penetrated the secrets of Nature farther than any physiologist has yet been able to go.

Hagee's Cordial of Cod-Liver Oil.

But there are other preparations which present the matter in a slightly different form.

Hagee's Cordial of Cod-Liver Oil Compound is said to "represent 33 per cent. of pure Norwegian cod-liver oil," with other ingredients, in perfect solution. It is also claimed, according to the advertising pamphlet, that "in this preparation we have every beneficial constituent of the best and purest Norwegian cod-liver oil." Put to the above three tests, however, Hagee's cordial of cod-liver oil is not, 1, an emulsion of cod-liver oil; 2, is not a saponification of cod-liver oil; and, 3, does not contain fatty acids. It, therefore, contains no cod-liver oil. The only nutrients in the mixture, revealed by analysis, are sugar, alcohol and glycerin, none of which is contained in cod-liver oil.

In this case the manufacturer misleads by the use of the word "represents;" he is careful not to say "contains," although the average reader would not be apt to notice the nice distinction. The manufacturer unwittingly admits that it contains no oil when he says that it "contains everything of value except the grease." What else there is of value in cod-liver-oil besides the "grease" we do not know. Certainly, if we estimate the value of the remedy by its nutrient properties, it must be set down as practically worthless, if not fraudulent, for although a mixture of sugar, alcohol and glycerin does possess certain nutrient value, the materials can be purchased for it far more cheaply in the open market. It is evident that claims are made for this preparation which can not be substantiated.

Again, some of the so-called cod-liver oil preparations are termed extracts of cod-liver oil, but are not in fact made from the oil, but from the cod-livers instead. They are preparations which, if honestly made, might be worthy of trial, but they are improperly called "extracts" of cod-liver oil, since they do not contain the fat, which is the active constituent of the oil, but the extractives from the liver which may or may not possess therapeutic virtues. So far as we know, however, no satisfactory evidence is forthcoming to indicate that such extractives have any therapeutic value.

The attempt to modify cod-liver oil for therapeutic purposes may be pronounced a failure and the large variety and extensive sale of these preparations appear to be owing to the fact that physicians do not recall the ordinary facts of chemistry and fail to apply simple tests with little technical skill, but too readily accept as facts the statements of the manufacturers.

CUTICURA RESOLVENT.

A Weak Solution of Potassium Iodid.

(*From the Journal A. M. A., May 23, 1908.*)

In the investigation of secret remedies the *British Medical Journal* (April 18, 1908), takes up the nostrums advertised to the British public for the treatment of skin diseases. Among these the Cuticura remedies which are prepared by the Potter Drug and Chemical Corporation, Boston, and are widely sold in America, are of special interest. The advertisements recommend these preparations for a variety of skin affections and imply their special value in syphilis. The remedies consist of the cuticura soap, ointment and an internal remedy known as Cuticura Resolvent. The last named preparation is said to be alterative, antiseptic, tonic, digestive, and aperient, and is recommended for purifying the system of humors of the skin, scalp, and blood, with loss of hair. It is to be given in a dose of two teaspoonfuls for adults three times a day. Analysis showed the composition of the mixture to be:

Potassium iodid	17 grains
Sugar and glucose	486 grains
Extractive	8 grains
Alcohol	10 fluidrams
Water sufficient to make	6½ fluidounces

In this preparation, which is sold for 60 cents for 6½ ounces, no alkaloidal substance was present; the extractive gave a slight indication of the presence of a preparation of rhubarb; all other drugs with well-marked characters were absent. It is a good illustration of the power of advertising and the faith of the credulous public that less than a grain of potassium iodid at a dose is believed to produce effects when given in a secret nostrum which can not be attained by the usual methods of treatment.

ENO'S FRUIT SALT.

(*From The Journal A. M. A., April 11, 1908.*)

PHILADELPHIA, March 21, 1908.

To the Editor:—Can you furnish the formula of Eno's Fruit Salt? A patient under my observation took this preparation on the advice of a friend and has since developed signs of cardiac dilatation, weakness and arrhythmia. A. A.

ANSWER:—According to an analysis in the *Pharmaceutische Centralhalle*, Nov. 1, 1906, Eno's Fruit Salt consists of about 50 per cent. sodium bicarbonate, 15 per cent. sodium bitartrate and 35 per cent. free tartaric acid. Therefore, its composition is very similar to that of seidlitz powder.

ENTERONOL.

The "Greatest Germicide Known to Science"!

(*Abstracted from The Journal A. M. A., March 21, 1908, 977.*)

This preparation is put on the market by the Enteronol Company, Oswego, N. Y., which declares that Enteronol is "the greatest antiseptic and germicide known to science," and that it "destroys the germs of typhoid fever, acute and chronic diarrhea, dysentery, cholera infantum, cholera morbus, summer complaint, Asiatic cholera, etc., within two hours." The formula furnished by the company reads as follows: "Ipecac. sub. nit. bismuth, latalia rad., camphor, lupulin, caffein and rheum." The attention of the Council on Pharmacy and Chemistry of the American Medical Association was directed to this preparation by a correspondent who had received a circular from the Enteronol Company. He sent a dollar to the company asking for a sample of "latalia rad." that he might study the drug botanically, as he was unfamiliar with it. He expected to receive by return mail a sample of root or bark, but instead, he received three boxes of Enteronol and the information that as "latalia rad." costs from $25 to $45 a pound the company could not afford to send samples. In a circular letter sent out by this company "latalia rad." is said to grow on the sides of the Himalaya Mountains in India, and that the company is unable to obtain enough for its own use. This statement is probably correct, and no one else could secure the drug either. A sample of Enteronol was submitted to Professor Day, of the University of Illinois, and to Professor Kraemer of the Philadelphia College of Pharmacy. Professor Day reports that he was "unable to find any mention of the drug 'latalia rad.,' which is stated as one of the ingredients of this preparation. I have searched the usual works of reference on pharmacognosy without being able to find any reference to a drug of this name. A microscopic examination of the tablets shows the presence of rhubarb and of ginger, but no lupulin, at least not in substance; nor could I locate definitely any ipecac., also stated to be one of the ingredients. Since ginger is not stated to be one of the ingredients of the compound, it, perhaps, may be the mysterious stranger 'latalia rad.' I was unable to locate any of the ordinary astringent drugs, such as kino, grameria, or nutgall." The results of Professor Kraemer's examination were practically identical with those obtained by Professor Day. A report from the chemical laboratory of the American Medical Association states that as Professors Kraemer and Day suggested the presence of alum, tests were made for this substance. The analysis, details of which are given, leads to the conclusion that alum is the chief constituent of Enteronol. The

report adds strongly to the impression that "latalia rad." is simply a ruse to catch the unwary and trusting physician who lacks the time to look into the botany of every new plant discovered, and who is willing to trust the honesty of every manufacturer. Attention is also directed to the fact that while bismuth and caffein are mentioned as ingredients tests made in the laboratory failed to discover either of these substances. Since there is no lupulin, no ipecac., no caffein, no bismuth, and possibly no "latalia rad." one is forced to the conclusion that the "formula" is meaningless and worthless, and that it is used simply to satisfy the demand for formulas for proprietary remedies. This is one more beautiful illustration of the absurdity of accepting a preparation because the "formula is on every package."

FRUITOLA.

A Fake Remedy for Gallstones.

(*From The Journal A. M. A., March 14, 1908.*)

WEST ELKTON, OHIO.

To the Editor:—A neighboring practitioner has been giving treatment for gallstones, his patients paying him $50 if they pass any stones. I think the remedy he uses is sold under the name of "Fruitola." The patients are said to pass hundreds of gallstones after using it. Have you any account of the stuff? I think the concretions, which pass without pain, are soft and float when fresh. I believe that olive oil is the bulk of the remedy. A. W. Y. CONARROE.

ANSWER:—Fruitola is a "patent medicine" which is alleged to have the wonderful power of relieving appendicitis or any intestinal inflammation without an operation. It is also said to be a system-cleanser, to remove gallstones and to cure all stomach trouble. Dr. E. E. Flagg of Mooreland, Okla., writes us that he has obtained identically the same results with large doses (2 ounces) of olive oil.

When olive oil was suggested for the treatment of gallstone colic, it was noticed repeatedly that after its administration the patient passed a considerable number of small lumps which were supposed to be gallstones. Chemical examination of these concretions showed, however, that they mainly consisted of soap which had been produced by the digestion of the oil. This observation has since been made use of by nostrum manufacturers to convince physicians and their patients of the efficiency of their preparations in securing the expulsion of gallstones. A simple examination will usually show the true nature of these bodies, since they disintegrate readily

when stirred in water. It is probable that they consist of fecal matter mixed with the mass of soap.

The value of olive oil in painful affections of the gastro-intestinal tract is well established and there is much clinical evidence to its soothing action in cases of gallstones, but the physician should not be misled into supposing that he has secured the elimination of a large number of gallstones because the patient passes a large number of lumps of soap, and he should be equally cautious in admitting the claims of the nostrum manufacturers that their remedies secure the passage of gallstones unless he has the opportunity to examine and test the stones for himself.

GERMAN PROPRIETARIES.

The Results of Examinations.

(*From The Journal A. M. A., April 4, 1908, 1136.*)

F. Zernik in an address to the German Pharmaceutical Association in Berlin, Jan. 9, 1908, reviews the principal proprietaries introduced during 1907, and comments on the results of their examination. Recently, the great commercial houses have facilitated the investigation of their products by furnishing information regarding the source, composition and properties of their preparations. In the main, this information has proved reliable, but not always. Zernik's examinations show the imperative necessity of impartial investigations of the products of even the most reputable firms. Such firms will be glad to acknowledge and correct errors, but Zernik notes another spirit as prevalent to some extent in the commercial world.

That reports of irregularities in their products should be unpleasant to the manufacturers is quite natural, especially as these reports are not confined to the pharmaceutical press; various medical journals, both domestic and foreign, are beginning to open their columns to them.

Then appear corrections: These corrections, however, it is sad to say, are often based on the motto "*si fecisti, nega*" (if you have done anything deny it), and in them facts that have been established by absolute evidence are opposed by an expenditure of dialectics that is worthy of a better cause.

Zernik regards the exposure of unworthy preparations as decidedly to the advantage of the pharmaceutical and chemical industry of Germany. He says: "In this relation, the reaction which has set in in the United States, against the prevalence of doubtful preparations, may serve as a model."

He describes the work of the Council on Pharmacy and Chemistry, and concludes: "In this cooperation of the physician and the pharmaceutical chemist as it has been established in the United States, the way is pointed out in general by which relief from the present inconveniences may also be obtained by us."

Zernik reviews the principal preparations which have appeared during the year 1907, but we have space only for a notice of those which are on the American market, or are otherwise of special interest:

FORMIDIN.

Formidin was found by Zernik to be deficient in its iodin contents. He emphasizes the fact that it is not a chemically individual substance. His report on formidin was given in THE JOURNAL, July 13, 1907, page 157.

IODOFAN.

In the report of last year on iodofan given in THE JOURNAL, June 22, 1907, page 2129, Zernik stated that iodofan contained only about 4 per cent. of iodin instead of from 42 to 47 per cent. which it should contain according to the formulas given by the proprietors. His conclusions in this respect were questioned, but subsequent examinations fully confirmed his previous results. An account of these results can be found in THE JOURNAL, March 7, 1908.[1]

ATOXYL.

Zernik gives the result of investigations into the composition of this preparation and notes especially the varying quantity of water as shown by the differences between analyses made in Germany and the results obtained by the American Medical Association.[2] He concludes: "It is a striking fact that in spite of the amount of sodium which was undoubtedly known to the manufacturer the incorrect designation meta-arsenicanilid was for years attached to this, in no sense, indifferent remedy. The determination of the constitution of this remedy now confirmed from three different sources has given a certain clearness to the pharmacologic relations of atoxyl. It is well known that after the use of this preparation, poisoning, especially severe disturbance of vision, even to blindness, has occurred, so that the name 'atoxyl' is to be understood only *cum grano salis*. While it was formerly a matter of discussion whether the arsenical or the anilin com-

1. See page 185 of this edition.

2. THE JOURNAL A. M. M., Sept. 21, 1907, reproduced on page 88 of this edition.

ponent was to blame for these toxic effects, it is now scarcely to be doubted in consideration of the constitution of atoxyl that we have here to do with the action of arsenic, as the anilin as such is detoxicated by the entrance of the arsenical radical into the nucleus, as is the case, e. g., in sulphanilic acid. Experimentally also, Blumenthal and Jacoby have lately determined that atoxyl poisoning is really an arsenical poisoning. The demand that in the case of so active a preparation the content of water shall be exactly fixed and shall not be subject to such variations as have been exhibited, appears to be thoroughly justified. On the other hand, in consequence of the easy decomposition of the commercial preparation, it is the duty of the apothecary to protect atoxyl from the action of the air in tightly closed vessels."

GONOCOCCIDE.

(*From The Journal A. M. A., Aug. 24, 1907, 708.*)

CHICAGO, Aug. 1, 1907.

To the Editor:—Can you give any information about the composition of the preparation known as "Gonococcide," sold by Cox Chemical Co., Chicago? The circular accompanying the package gives the following formula:

C_8H_8BrNO monobromacetanilid; $C_{10}H_{44}N_2C_7HO_3$ eudermol; $CaSo_32H_2O$ gypsum and selenite, $CaSo_4$ anhydrite; H_2O aqua and myrrh.

NOTE.—In combining calcium coral with sulphuric acid, calcium occurs as gypsum, selenite and anhydrite.

The literature of eudermol limits the usefulness of that drug to skin diseases. W. H.

ANSWER.—Gypsum, selenite and anhydrite are the names applied to different forms of calcium sulphate. Gypsum and selenite are chemically identical, being calcium sulphate and containing two molecules of water crystallization, $CaSO_4 + 2H_2O$, but differing in crystalline form. Anhydrite is also calcium sulphate, but contains no water of crystallization. The inclusion of three different forms of the same substance should be sufficient to demonstrate the "fakeness" of the formula. The first substance named, monobromacetanilid, has been used as an antiseptic under the trade names of antisepsin and asepsin. It is practically insoluble in water, and hence but little of it can be contained in the preparation. Eudermol is a name given to nicotin salicylate and its use externally has been recommended in scabies, chronic eczema, and other skin diseases. This being practically the only medicinal constituent given in

the formula, its determination in gonococcide was taken up in the Association laboratory. Tests, however, failed to show the presence of this or any other alkaloid. While the addition of iodin to a 0.1 per cent. nicotin salicylate solution produces an abundant precipitate, the addition of iodin to a specimen of gonococcide produced no reaction whatever. Further comment on the formula seems to be unnecessary.

GOWAN'S PNEUMONIA CURE.

(From The Journal A. M. A., May 9, 1908, 1541.)

WALLBURG, N. C., Feb. 19, 1908.

To the Editor:—Please print the analysis of "Gowan's Pneumonia Cure." What effect does this remedy have on pneumonia? J. A.

ANSWER.—The results of an examination of this preparation in the American Medical Association's laboratory follow:

This preparation was not considered of sufficient importance to warrant an exhaustive chemical analysis, as its general character, sufficient for all practical purposes, can be determined by a cursory examination. The "pneumonia cure" as found on the market is a brownish ointment, having an odor of camphor. When applied to the skin, or subjected to a temperature approximately that of the body, it becomes liquid. It is almost completely soluble in chloroform, indicating the absence of any appreciable quantity of water or inorganic constituents. Tests indicate that the base of the ointment is a fat. From these facts we conclude that "Gowan's Pneumonia Cure" is an ointment composed of some fat having a low melting point and containing camphor, and, if the statements on the label are to be given credence, a small quantity of opium.

This nostrum is recommended by the purveyors as a valuable remedy for local application and it is said to be "antiseptic, nutrient, antipyretic and diaphoretic." It is claimed that it will determine blood to the surface and relieve congestion. The base is said to be emulsified fats which are readily absorbed and the implication is made that the other constituents, also, are absorbed. It probably equals in therapeutic value the old fashioned camphorated oil application. In common with other so-called "cures" sold to the public, its viciousness lies in the false sense of security its use engenders.

HYDROCINE.

Another Consumption Cure. (?)

(From The Journal A. M. A., Aug. 17, 1907, 622.)

We have had occasion to comment on the diabolical cruelty exhibited by cancer fakers in deluding their victims with false hopes and by inducing them to delay such treatment as might be effective until too late. Next to cancer, tuberculosis offers the most promising field for such vampires, for it is a disease in which the patient is always hopeful and always ready to say that he is better; just such a condition as makes him an easy victim for those who are without principle and ready to prey on the hope which springs eternal in the human breast.

During the past three months, physicians all over the country have been receiving postal cards announcing the discovery of a new and wonderful remedy for consumption. The card is signed, "C. S. Roberts, M.D., Member N. Y. State Medical Society and American Medical Association." It is to be regretted that what Roberts says regarding his membership is true. Until within the last few months Roberts lived at Syracuse, N. Y., and is a member of the Onondaga County Medical Society and consequently of the Medical Society of the State of New York. Last December he became a member of the American Medical Association. This was just before his removal to New York City, and he evidently obtained this membership because he was going into this wretched business and wanted to use his membership as apparent guarantee of his ethical standing. As soon as the Onondaga County Medical Society discovered the business Roberts had gone into he was asked to resign, but this he refused to do. Hence it became necessary for the society to go through the legal form of trial before expelling him from the society. We understand that his trial cannot come off until September, and that Roberts is fighting to retain his membership.*

According to the postal card, Roberts is "just commencing to introduce to the medical profession (on strictly ethical lines)," this is put in parentheses probably for emphasis, "a positive cure for tuberculosis in any form." "This discovery," he says, "is the result of fourteen years scientific study and experimentation," but so far as we have been able to learn, Roberts has not been noted as performing any remarkable cures of tuberculosis in Syracuse, nor was it known that he was using this wonderful remedy. The last paragraph of the postal card is supposed to be a clincher:

---

* He was dropped at the September meeting.

"Doctor, a trial will prevent your tubercular patients from saying your neighbor doctor is curing his patients in a few weeks right at home, while you are sending them at great expense in time and money to the remote resorts for consumptives."

Judging from the circulars, Roberts seems to have gone to New York to help exploit a nostrum—hydrocine—put out by the "Medical Food Co.," and evidently the postal card is the initial move in a scheme to exploit the medical profession.

Incidentally, it might be said that some two or three years ago Roberts was interested in a scheme to work the doctors by getting them to invest in a water still, and the circular letters he sent to physicians at that time sound very similar to the circulars he is now sending out puffing this specific for consumption. In one of the "still" letters[1] he states that he made $3,200 in less than two months on an investment of $300. Evidently something must have happened to the "still" business, for such a man would hardly give up a business net-

---

1. The following is a copy of a circular letter, imitation typewritten, sent out by Roberts. The physician to whom it was addressed, said: "This is the third letter I have received from Dr. Roberts in the past few weeks, none of which I have answered."

Syracuse, N. Y., Nov. 26, 1904.

Dear Doctor:—My letters to you of recent date may have found you busy with your own affairs; they may have found their way into your waste basket (never to return with any profit to you). However, permit me to say I meant well and hoped to favor you.

You may be interested in knowing that my profits since being interested in this company (September 29) on an investment of $300 have been $3,200.

I will state for your information, Doctor, that one of the four ways in which to make money on this proposition by associating with this company to the extent of $300 to $500 (and this amount is all you can invest with them) is by the sale of their Automatic Water Still in your county by any method you may choose to adopt for a period of 15 years.

This Still is the greatest household device I ever saw; it requires no more room than, and can be used as, an ordinary tea-kettle and does not require as much watching and care. The water is boiled and the steam condensed in the presence of pure hot air, giving the nicest pure and live water, entirely free from the taste of ordinary boiled or distilled water. I know of no water for table use so nice and pleasant to the taste. The Still is capable of distilling several gallons per day. The price is reasonable and within the reach of everybody, and one should be in the home of every family in your town and you can do your patients no greater favor than recommending one of these to them.

This Water Still has been endorsed by every board of health where sold and by all physicians who have seen it.

Why not accept the company's liberal offer to pay your fare one way for the purpose of an investigation? If this business was not high class and worthy they certainly would not make you such terms.

If at all interested, please let me hear from you for further information, or I will arrange for your transportation to Rochester.

Very truly yours. C. S. ROBERTS.

ting $2,900 in two months, even to exploit a remedy that is to relieve the human race of one of its most fatal diseases.

The recipient of the postal card above referred to is told that if he will send 15 cents in postage stamps he will be furnished with the "theory, literature and abundant testimonials and a $3 size sample to prove what we say." This part of the agreement is lived up to. The theory is furnished, plenty of literature, including testimonials, and also a box of the tablets. The theory ought to take with an ignorant layman, and the literature certainly is promising and hopeful enough to convince the most desperate individual that he could be cured.

The wonderful remedy is known as hydrocine—hyper-oxidized hydro-carbon. The circular tells us that "the physician is unquestionably entitled to a full, frank and candid statement of the composition, nature and character of any and every medicinal preparation he is asked to prescribe." This sounds excellent, and then follows the formula:

FORMULA.

Hyper-oxidized hydro-carbon (vegetable)	28	gr.
Pure Rock Sugar	8	gr.
Powdered Pancreatin	.1-20	gr.

The oxids are liberated in the stomach and thrown into the circulation.

It is barely possible that there is somebody on this mundane sphere that can tell what "hyper-oxidized hydro-carbon (vegetable)" is. Most of us have a knowledge of pure rock sugar and powdered pancreatin, but when we come to the other ingredient, we fear the majority of us would have to give it up.

However, we find this in the printed circular:

> The hydro-carbon is extracted from oils of cinnamon, coniin, peppermint, spruce, myrtle, chekan, marrubium, myrrh, turpentine and thymol, is then condensed, and positively all toxic properties are eliminated. The residue is hyper-oxidized, predigested by pancreatin, mixed with a small quantity of powdered rock sugar and pressed into 30 grain tablets.

There we have it. And when we have it, what have we?

The literature is of the usual quackish order, the optimistic kind that will make the physician who does not stop to think feel that it is something worth trying at least.

Of course, there are testimonials—several of them. What nostrum was ever introduced, whether to the public or to the profession, that did not have testimonials ready? Many of the testimonial givers we have not located, but they may be genuine for all that. One who speaks in high praise of the nostrum is Dr. O. P. Barber of Saginaw, Mich., who is given

as "professor of surgery, Michigan College of Medicine and Surgery, Detroit, Mich." Dr. Barber's success is really remarkable when it is considered that he disregarded Dr. Roberts' instruction to select an incipient case, for he seems to have taken one with extensive cavities, in the third stage, a man with undoubted complications, whose sputum was so offensive that the doctor asked him to expectorate in the closet in the next room. He also neglected to give a "good liver cathartic at the start," as the circular advises, but put him at once on hydrocine. Possibly Dr. Barber did not carry out the full instructions because he did not get them from the right source, for he tells us that he was led to use the remedy on the advice of a layman, from whom he seems to have obtained his early supplies. However, notwithstanding these palpable violations of the correct method of using the preparation, this unpromising patient recovered to such an extent that the cavities all filled up and over 40 per cent. of the patient's lung consists of scars. This was proved by the *x*-ray. Dr. Barber had other equally remarkable cures.

Another name that is often seen in a certain class of literature appears in connection with this hydrocine. This is Dr. J. W. P. Smithwick, of LaGrange, N. C. Dr. Smithwick, however, is given to writing very favorably of preparations that are not in the Pharmacopeia, such as glycobenphene, borobenphene, tongaline, bromidia, maltopepsine, ecthol, phenalgin, dermapurine, Angier's petroleum emulsion, thialion, etc., for we find his testimonials in the advertising literature of all of these articles. Dr. Smithwick, who, by the way, is given as "first vice-president of the American Congress on Tuberculosis," and therefore should be an authority on the subject, seems also to have had a most notable experience, for every patient treated recovered, and his cases included not only pulmonary tuberculosis, but also hipjoint disease, lupus vulgaris, etc., and of the worst sort.

When we began to receive Roberts' postal cards and were asked to show up the scheme, we thought the card itself was so quackish that no intelligent physician would risk even the 15 cents. It seems, however, that some have been "almost persuaded," and we have been astonished to receive letters asking if it is not possible that this nostrum may do what its promoters say it will do, evidently feeling that possibly, after all, the long-looked-for remedy has been discovered. How foolish! If Roberts and the promoters (who are, perhaps, making him a cat's paw) really had a remedy that would do what they claim this one will do, there would not be words in the English language strong enough to characterize their vil-

lainy and inhumanity in keeping it secret. If, on the other hand, the stuff is a fraud, then it is simply another instance to add to the list of attempts to humbug the public, and to make money out of their suffering. Either horn of the dilemma is certainly reprehensible, and to have one who is supposed to have once been a reputable physician mixed up in it should be a source of regret to every member of our profession.

An Analysis of the "Hyper-Oxidized Hydro-Carbon."

(From The Journal A. M. A., Feb. 15, 1908, 546.)

Hydrocine, widely advertised as a consumption cure and belonging to the class that Samuel Hopkins Adams would designate the "fundamental fakes," has been analyzed by our chemists and found to consist chiefly of cane sugar. This preparation was referred to in THE JOURNAL, Aug. 17, 1907, and its evidently fraudulent nature commented on.

In common with other members of its class, it is advertised as being an essentially non-secret preparation and, to bear out that claim, an involved and meaningless "formula" is appended. Its promoters state that Hydrocine is "a vegetable hyper-oxidized hydro-carbon"—whatever that may mean. Its "formulas" are equally enlightening. We use the plural advisedly, as Hydrocine exhibits that fine fickleness and mutability of composition that characterizes nostrums of its kind. Its early "formula" was as follows:

Hyper-oxidized hydro-carbon (vegetable)	.28 gr.
Pure rock sugar	8 gr.
Powdered pancreatin	1/20 gr.

The oxids are liberated in the stomach and thrown into the circulation.

For some unknown reason, however, this "formula" was changed before the edition of the pamphlet, setting forth the wonders of the combination, was exhausted. "Formula" No. 2, as printed on a "sticker" placed over "Formula" No. 1, states that Hydrocine consists of:

Oxidized carbo-hydrates and essential oils	.18½ gr.
Mineral constituents	1½ gr.
Pure rock sugar	9 gr.
Powdered pancreatin	1/20 gr.

Accompanying this later pamphlet—or more correctly, the earlier pamphlet with a later "formula"—is a circular giving the following enlightening information regarding the composition of Hydrocine:

INGREDIENTS.

"Oil of cinnamon, coniin, peppermint, spruce, myrtle, chekan, marrubium, myrrh, turpentine and thymol, with all toxic properties positively eliminated. The residue is highly oxidized, mixed with oxidized sugar, pancreatin and pressed into a 30 grain tablet. The oxygen is liberated in a nascent form, and taken up by the circulation, and thus enables patients to become saturated with the same in 30 minute doses."

This same circular also gives what purports to be a report of an analysis of Hydrocine Tablets, which, however, reads more as if it were a testimonial prepared at the request of the manufacturer, in spite of the fact that it is written by a presumably reputable chemist. Thus, while the report states that the tablets contain a certain amount of "aldehydes, ketones and oxidized products from the bodies used," the chemist virtually acknowledges that these bodies were not actually determined by him. In fact, from the language of the report one is led to believe that he accepted the manufacturer's statement in regard to their presence. Of course, we do not know the composition of the hydrocine which the manufacturer submitted to this chemist for report, or the composition which hydrocine will have in the future. The report of the analysis made for the American Medical Association by its chemists indicates the composition of Hydrocine such as is sent to physicians, and is, therefore, of interest. It is as follows:

We have made a careful examination of the original package of Hydrocine and find that the average weight of the tablets is 29.5 grains. Of this, 95 per cent., or 28 grains, of the total of 29.5 grains, is cane sugar. Each tablet contains an average of 0.3 of a grain of a substance, insoluble in alcohol, containing nitrogenous matter. The indications are that this substance may be very impure pancreatin, that is, that this 0.3 of a grain may contain the 1/20 grain of pancreatin claimed to be present by the manufacturers. It also contains very small quantities of aromatic oils, and it is probably due to the fact that these oils, like turpentine, react with oxygen that it is claimed that the vegetable matter is "hyper-oxidized." The formula, however, mentions "hyper-oxidized hydro-carbon." Perhaps the manufacturers have reference to the rock sugar and mean carbohydrate, for there is probably no oxidation of the sugar, though it is probable that the aromatic oils present may be partially oxidized and changed in other ways after a time, but the "hyper-oxidized hydro-carbon (vegetable) 28 grains" of the formula is an absurdity, particularly as the analysis shows that the tablet contains 28 grains of sugar. We do not believe

that it is possible for such a substance as turpentine, for instance, when in contact with sucrose (cane sugar) to act as an oxidizing agent.

Apparently, therefore, the essential constituent of Hydrocine, as it is now offered to physicians, is cane sugar, and evidently this was the substance which was referred to as the "hyper-oxidized hydro-carbon." As indicated by our chemist's report, the very learned (?) statements regarding the "hyper-oxidized hydro-carbons" or "oxidized carbo-hydrates" may be reduced to a simpler statement: "Each 29.5 grain Hydrocine tablet contains 28 grains of cane sugar and small quantities of volatile oils and a trace of pancreatin."

SUMMARY.

To sum up, we have: A preparation, shown by analysis to be 95 per cent. cane sugar, put on the market to be retailed at a cost of $8 a pound (avoirdupois). The claim is made that by giving this preparation in 30-grain doses to the extent of one and a quarter ounces daily, tuberculosis can be "permanently cured" in "from six to sixteen weeks." To impress the unthinking, the main constituent in the formula is given a quasi-scientific name, meaningless in import. The exploiter of this "remedy" claims to have given up a practice yielding $10,000 annually "to spread the truth regarding this preparation"—and incidentally, we suspect, to reap the benefits that must accrue from selling sugar at over $5 a pound, wholesale.

Our chemist having translated for us into simpler language the statements as to the composition of the article, we, as physicians, should not find it difficult to interpret correctly the evidence on which the claims are based.

HYDROZONE AND TONGALINE.

Preying on the Yellow Fever Victims.

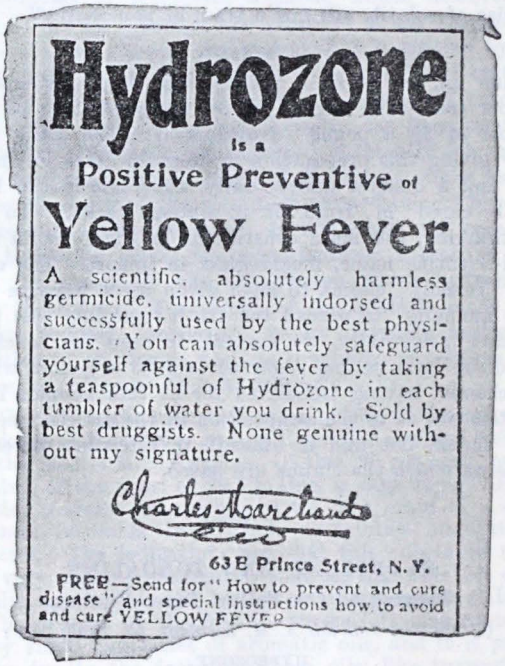
(From The Journal A. M. A., Sept. 23, 1906, 936.)

HYDROZONE.

The moral principle governing the action of secret proprietary and patent medicine men is an unknown quantity; sometimes it would seem to be a negative one. Just how much lower in the scale of humanity a man can go than to prey on the fears of a people in the time of a terrible epidemic for the sake of a few dollars we do not know. There may be something more despicable, but what is it? Two weeks ago we referred to the cold-blooded methods of the peruna people; this week we reproduce an advertisement from the New Or-

leans *States* that tells another story of man's inhumanity to man.

This brings up the problem that we are trying to solve, viz.: "What is the difference between a 'secret proprietary medicine' advertised in medical journals to physicians and a 'patent medicine' advertised in newspapers to the public?" Hydrozone is being advertised in nearly all medical journals, and at the same time in newspapers. Where shall we place it? And if hydrozone, with the methods recently adopted to exploit it, is tolerated in the medical press, why not peruna?



TONGALINE.

Tongaline, too, is good for yellow fever if we are to believe the absurd claims made by its enterprising salesmen. Here is the advertisement from current medical journals:

"Stegomyia fasciata has produced an epidemic of yellow fever in certain sections of Louisiana and adjoining states.

"Stegomyia punctata has inoculated thousands with virulent malarial germs throughout the balance of the Mississippi Valley.

"Tongaline, Mellier, in one of its forms as indicated, antagonizes and destroys the effects of these parasites on account of its extraordinary eliminative action on the liver, the bowels, the kidneys and the pores, whereby the poison is promptly and thoroughly expelled. For full literature, etc."

THE "HYOSCIN-MORPHIN-CACTIN" ANESTHESIA.

An Example of Subordination of Science to Commercialism.

(*From The Journal A. M. A., Dec. 21, 1907, 2103.*)

SCOPOLAMIN-MORPHIN ANESTHESIA.

Some eight years ago, a combination of scopolamin and morphin was introduced in Germany as an anesthetic. Since then it has been extensively used in Germany, France, Italy, Russia, the United States and elsewhere, and medical periodicals—German especially—have contained many articles, reports, etc., on the subject. While the method and technic originated in Germany, and while it has had its greatest use in that country, it has also been used more or less extensively in practically every other country, including the United States, and reports both favorable and unfavorable have appeared in all these countries. Our readers, through abstracts in the Current Medical Literature department, have been kept informed of what has been published at home and abroad regarding this method of producing anesthesia, but although the method has been used for over seven years it may be said to be still in an experimental stage.

HYOSCIN-MORPHIN-CACTIN ANESTHESIA.

Over a year ago the Abbott Alkaloidal Company put on the market as a "new" anesthetic a tablet said to contain 1-100 grain of hyoscin, ¼ grain of morphin and 1/67 grain of a product called "cactin." During the past year this tablet has been exploited to an extent and in a manner as has no other medicinal preparation in this or in any other country. Full page advertisements and reading notices, all extravagantly laudatory of the preparation, have appeared in medical journals of all kinds. More original articles highly praising it have been published than have ever appeared in the same length of time on any other one medical subject. Extreme optimism has characterized the exploitation of the product from the very first.

What is this combination on the promotion of which so much money and energy have been spent? Is it something new and original, as the advertising literature would lead one to believe? Everything connected with its promotion has con-

veyed the impression that this method of producing anesthesia is entirely new. Dr. Emory Lanphear, who seems to be interested in its promotion, has repeatedly referred to it as new. Here are a few quotations from his writings:

"After exhaustive experimentation, the formula decided on by Dr. Abbott and adopted and extensively used by myself is:

"Chemically pure hyoscin hydrobromid..... 1-100 gr.
"Chemically pure morphin hydrobromid..... 1-4 gr.
"Cactin (from *Cactus grandiflorus*)..... 1-67 gr."

"The formula of the hypodermic tablet finally decided on by Dr. Abbott and myself, after many experiments is:" and then follows the formula.

"The so-called Abbott-Lanphear anesthetic."

These are samples only; similar quotations could be made from Abbott's writings, and also from the literature in general. It is evident that it has been the intention of the manufacturers to convey the impression that this method of producing anesthesia originated with them. It is not strange, therefore, that many physicians who are unfamiliar with the subject are writing about it in a manner to show that they, too, consider it new. The majority of the reports carry this impression.

Dr. C. E. Case, Tacoma, Wash., in the Abbott Alkaloidal Company's journal—the *American Journal of Clinical Medicine*—in an article entitled, "The New Anesthesia—Remarkable Results," says: "Dr. Spiro Sargentich . . . joins me in expressions of the profoundest regard and thankfulness to both yourself and Dr. Lanphear in giving to the profession and to humanity so potent a remedy for good."

"This remarkable combination of Abbott's" is the way E. G. Paxton, of Chicago, refers to it.

Dr. E. A. Hall, Vancouver, writes: "During the last few operations I have used Lanphear's formula as an anesthetic."

Dr. G. H. Stephens, Personville, Texas, writes: "Hurrah for the new anesthetic, hyoscin, morphin and cactin comp., Abbott. It's O. K."

Dr. F. H. Lukin, Pamplin City, Va., says: "I am using the Abbott-Lanphear anesthetic, hyoscin, morphin and cactin compound, and find it a great thing."

Dr. B. H. Kohler, Reedsville, Pa., says: "Your Abbott-Lanphear anesthetic tablet fully justifies all your claims."

And so on—the same idea is expressed by at least half of those who write or speak on the subject. But is it "new"? In one way, yes!

The combination of scopolamin-morphin has been on trial for the last eight years. It is non-proprietary, non-secret, no one firm has a monopoly on it, and there have been no com-

mercial interests to exploit it for selfish gain. The "H-M-C—Abbott" combination, which, as we shall show, is simply scopolamin-morphin, is owned and controlled by one firm, so it is proprietary (the name has been registered); and on account of the "cactin" is secret; it has been and is being exploited for commercial gain. From this point of view alone it is "new" and the Abbott Alkaloidal Company is to that extent justified in calling it "new." But the Abbott Alkaloidal Company will not agree with this reason for calling it "new." They claim that it is new, first, because they use hyoscin,

But greatest of all is the triumph the new remedy has won in the field of obstetrics. Nothing like it has ever appeared. Women who had taken chloroform in previous confinements say that the new remedy is incomparably superior. Every day I receive letters from men who assert that they are "scooping in the neighborhood" of obstetric practice since beginning the use of these tablets.

Women are canceling their engagements with their old physicians to secure the attendance of those who employ the H. M. C. Comp. tablets. Men write to us that they are extinguishing the fear of child-birth, putting a stop to family quarrels, and one man goes so far as to predict an increase in the birth-rate of the American women as a result! When one is daily overwhelmed with shoals of such encomiums as these he can scarcely avoid becoming somewhat enthusiastic himself.

The above is reproduced as a sample of the scientific literature that has been appearing in medical journals. It is from a paper by Dr. W. C. Abbott, president of the Abbott Alkaloidal Company, which appeared as an original article in the *Chicago Medical Recorder*, September, 1907. It is a most optimistic write-up of the proprietary combination "H-M-C." In this article Abbott refers to "cactin" as "a quickly acting stimulant of the heart and respiration." The journal in which this article appeared carries some of the worst nostrum advertisements and yet is edited and controlled in every way by a physician of high standing in the profession, and has on its "editorial board" some of the very best men in Chicago.

which is safe, instead of scopolamin, which is dangerous; second, because they have added to it "cactin," which makes it still safer. Let us take up these two differences.

ARE HYOSCIN AND SCOPOLAMIN THE SAME?

The conclusion that the alkaloid obtained from hyoscyamus

chemically, physiologically and clinically was reached some years ago. The Abbott Company, however, seems not to accept this conclusion, as these quotations show. First from an article by Abbott in the Abbott Alkaloidal Company's journal:

"It is now an established fact that hyoscin, when chemically pure, is not therapeutically identical with scopolamin, as some have claimed."

Dr. Abbott, in the *International Journal of Surgery*, March, 1907, says:

"My own views, as here and elsewhere expressed, are based on the use of the chemically pure alkaloids, hyoscin and morphin . . . but I am simply protesting against being held responsible for results accruing from the use of scopolamin by all sorts of operators, both at home and abroad."

From a communication to the *Fort Wayne Medical Journal-Magazine*, in which Dr. Abbott criticises the conclusions of an editorial that appeared in a previous number, which were to the effect that scopolamin-morphin is dangerous, and in which Wood's statistics are referred to, we quote:

"It will be noted that while Wood speaks of scopolamin we talk of hyoscin [italics in original]. He and others claim that these are identical; but whether this is correct or not (which we do not believe) we deem it wise to adhere to the true hyoscin derived from hyoscyamus. . . . Your statement that hyoscin-morphin has yielded a mortality of over four per thousand; and that 69 per cent. of its uses have been unsatisfactory is, of course, an error, your deductions being based on the assumption by Wood that scopolamin and hyoscin are one and the same thing; therefore that scopolamin-morphin and hyoscin, morphin and cactin are identical. The well-known obstacles in the way of the use of scopolamin-morphin, to which the writer long ago called attention, shall not be opposed to 'hyoscin, morphin and cactin,' which is quite another thing."

An editorial, presumably by Dr. Abbott, in the issue of his journal for December, 1906, under the title, "Another Death from Scopolamin," contains an abstract of a report of a death in Europe from the use of scopolamin-morphin, and closes by saying: "If Rys had employed pure hyoscin hydrobromid with morphin it is probable there would have been no fatality."

From a letter from Dr. Abbott, published in THE JOURNAL of the American Medical Association, Jan. 26, 1907, we quote:

"I am perfectly well aware that scopolamin is claimed by some to be identical with hyoscin, but the fact remains that the same therapeutic results are not obtained from one that are obtained from the other."

The following quotations are from Lanphear:

"Knowing that hyoscin hydrobromid is a drug of known

strength and especially valuing the fact that it is, apparently, perfectly safe—whereas scopolamin is notoriously unreliable, . . . I determined to give it a trial."

"There is on the market a great deal of 'scopolamin' which is said [italics in the original] to be identical with hyoscin, but—some of it contains atroscin, much of it has more or less apoatropin (which renders it dangerous). So the doctor should insist on having a tablet consisting of:" —then follows the "H-M-C" formula.

"Dr. W. C. Abbott, of Chicago, called attention to the fact that the good results attributed to scopolamin depend entirely on the amount of hyoscin which 'scopolamin' contains—in other words, that the anesthesia is a hyoscin anesthesia and not a scopolamin anesthesia, plus morphin. This seemed to me to be a declaration of marvelous possibilities." ["Marvelous possibilities" is appropriate.]

"Dr. Abbott's position is well known; that only pure hydrobromid of hyoscin should be employed for making this anesthetic tablet; and that if scopolamin be substituted it should be with a full understanding that by reason of one impurity or another it may be either unreliable or dangerous—a danger for which the surgeon himself must be held responsible, since he can easily secure pure hyoscin instead."

The following is taken from the Abbott Alkaloidal Company's price-list, and essentially the same paragraph appears in the advertising literature and in advertisements of the product in current medical journals:

"Scopolamin must not be substituted on this formula, neither so-called hyoscin derived from scopola. Regardless of alleged chemical identity, results are NOT the same. Neither should you underestimate the value in this formula of 'Cactin.' It's the synergistic whole that produces the results. There is no 'just as good.'"

These quotations—the "H-M-C" "literature" is full of similar statements—are sufficient to show the emphasis with which this firm insists that the hyoscin is pure and its uses safe, while the scopolamin which has been in use by others is not chemically pure or safe. The one thing emphasized on all occasions is that hyoscin and scopolamin are different, that the former is pure and safe, the latter impure and dangerous.

These statements now being made by the Abbott Company would have been excusable ten years ago when there was a controversy on the question; the German literature, until within recent years, furnished an abundance of material from which to quote to prove that the alkaloid as made from hyoscyamus is different from that made from scopola. These quotations, however, will not apply now. The question was

settled long ago by those who were competent to settle it—by those recognized as authorities on the subject. There have been echoes of the old controversy until recently, but this is as much as can be said. In spite of this, the Abbott Alkaloidal Company denies the conclusions and is making statements to-day that are more dogmatic than any that were made by the most earnest advocates during the height of the controversy a decade ago.

To save going into the question whether or not there is a difference, therapeutically, between the alkaloid made from hyoscyamus—provided such an alkaloid were obtainable—and that made from scopola or from some other of the Solanaceæ, we refer those interested to a "reply" to a letter from Dr. Abbott, published in THE JOURNAL of the American Medical Association, Jan. 26, 1907.

HYOSCIN AND SCOPOLAMIN SYNONYMOUS TERMS.

Assuming for a moment that the alkaloid made from hyoscyamus is safer and better than that made from *Scopolia atropoides* and other of the Solanaceæ, what evidence is there that the hyoscin on the market is made from hyoscyamus? As so much depends on this, so far at least as the Abbott Alkaloidal Company is concerned, let us look at the facts.

WHAT THE PHARMACOPEIAS SAY.

The Pharmacopeia of a nation is the standard according to which drugs are manufactured and by which they are judged. In all countries these standards are recognized by law; they are the highest authority.

The alkaloid on the market as scopolamin hydrobromid or hyoscin hydrobromid is not made in the United States; so far as we are able to learn, it is made only in Germany—where the subject has been given more attention than elsewhere—and consequently is made according to the German Pharmacopeia. But the German Pharmacopeia recognizes the alkaloid only under the name scopolamin hydrobromid. Hyoscin hydrobromid was introduced into the German Pharmacopeia in 1891, but later the pharmacopeia commission adopted the name scopolamin hydrobromid to replace hyoscin hydrobromid, since the identity of the alkaloid from the different sources had become established. Hence, the German Pharmacopeia no longer retains the name hyoscin hydrobromid, for to do so would be to give two names to the same article. As we shall see, one nation—the United States—does do this, and officially recognizes the same alkaloid by two different names.

The United States Pharmacopeia—eighth revision, which became official in 1905—adopted the new and more correct name,

scopolamin hydrobromid, at the same time retaining the old name hyoscin hydrobromid. The definitions are as follows:

"Hyoscinæ Hydrobromidum. Hyoscin Hydrobromid. The hydrobromid ($HBr.C_{17}H_{21}NO_4+3H_2O$) of an alkaloid chemically identical with scopolamin, obtained from hyoscyamus and other plants of the Solanaceæ."

"Scopolaminæ Hydrobromidum. Scopolamin Hydrobromid. The hydrobromid ($HBr.C_{17}H_{21}NO_4+3H_2O$) of an alkaloid obtained from the plants of the Solanaceæ; chemically identical with hyoscin hydrobromid (see hyoscin hydrobromidum)."

The British Pharmacopeia (issued nine years ago, 1898), describes the alkaloid under the definition hyoscin hydrobromid, but gives as a synonym scopolamin hydrobromid. It is described as follows:

"Hyoscinæ Hydrobromidium. Hyoscin Hydrobromid. Synonyms.—Hydrobromate of Hyoscin; Scopolamin Hydrobromid. The hydrobromid, $C_{17}H_{21}NO_4$, HBr, $3H_2O$, of an alkaloid contained in hyoscyamus leaves, different species of Scopola and possibly other solanaceous plants."

The Danish, the Swiss, the Netherlands and the Japanese pharmacopeias, all of which have been revised recently, describe the alkaloid under scopolamin hydrobromid, but do not mention hyoscin. Neither the French, the Italian nor the Austrian pharmacopeias mention the alkaloid under any name. Some of these, however, are not recent.

From the above it will be seen that the pharmacopeias that mention it at all recognize the alkaloid as identical, whether it is made from hyoscyamus or scopola; all, with the exception of the United States and British pharmacopeias, have discarded the name hyoscin hydrobromid; and these two—the United States and British—use the terms hyoscin hydrobromid and scopolamin hydrobromid as synonymous terms. Yet in spite of this the Abbott people have the effrontery and the colossal conceit to deny brazenly that which the scientific world has accepted as proved facts. Is this done through ignorance or for commercial gain?

WHAT THE MANUFACTURERS SAY.

If we need further confirmation of the fact that the alkaloid sold under the two names is identical, let us turn to the manufacturers; they certainly ought to know what they are putting on the market.

As already stated, Germany supplies the world (including the Abbott Alkaloidal Company) with this drug, and investigation seems to show that most, if not all, of that which is imported into this country is made by E. Merck of Darmstadt,

or by C. F. Boehringer & Soehne of Mannheim-Waldhof, and is imported by their respective representatives, Merck & Co., New York, and C. F. Boehringer & Soehne, New York.

Since Dr. Abbott is quoted as saying that his firm obtains its "hyoscin" from Merck & Co., let us first see what the latter say.

Merck & Co. issues a book called "Merck's Index," which is considered a reliable authority on alkaloids, etc. From the 1907 edition we quote:

> "Hyoscin.—According to the latest investigations, it is chemically and physiologically identical with scopolamin (q. v.)."
>
> "Scopolamin.—Salt of alkaloid from roots of various plants of Solanaceæ, chemically, physiologically and clinically identical with hyoscin."

In a letter to a member of the Council on Pharmacy and Chemistry, under the date of Aug. 14, 1907, Merck & Co. write:

> "We may say that, as the fact of the identity of hyoscin and scopolamin has been absolutely established, hyoscyamus is no longer the sole source from which hyoscin is made. For this reason we have some time since discontinued the use of the expression 'from hyoscyamus' on our labels and in our literature."

In the price-list issued by C. F. Boehringer & Soehne, hyoscin is given in its alphabetical order, followed by "see scopolamin." Referring to scopolamin, we find "Identical with hyoscin hydrobromid." In a description of scopolamin in another part of the price-list appears the following important statement:

> "Scopolamin.—Hyoscin hydrobromate was admitted to the U. S. P. 1890. The German Pharmacopeia of the same issue almost made this product official, but in a supplement, issued a year later, the pharmacopeial commission adopted the name scopolamin hydrobromate to replace 'hyoscin.' The reason for this change is that nearly all the hyoscin supplied by manufacturing chemists is made from *Scopolia atropoides*, and hence "scopolamin' more correctly indicates the source of the alkaloid. In this country the name hyoscin is, moreover, alleged to be a trade-mark, and as a consequence it is sold at an exceptionally high price. Taking these facts into consideration, we supply this product labeled thus: 'Scopolamin hydrobromate, identical with hyoscin hydrobrom., U. S. P., in 5, 10 and 15 grain vials. We guarantee the identity of our product with the hyoscin hydrobromate of the U. S. Pharmacopeia.'"

After giving these ample facts, we do not think it necessary to enlarge on the argument by quoting from the statements of the leading authorities on pharmacognosy, pharmacology, etc.

CONCLUSIONS AS TO HYOSCIN AND SCOPOLAMIN.

From the above facts we are compelled to make the following conclusions:

1. Hyoscin and scopolamin are synonymous terms for the same alkaloid.

2. The claim of the Abbott Alkaloidal Company to the effect that the alkaloid it uses, and which it calls "hyoscin," is purer and safer than scopolamin has no basis in fact, for that alkaloid is scopolamin.

3. No one connected with the Abbott Alkaloidal Company—or, for that matter, anyone else—is able to detect whether the alkaloid it buys is made from hyoscyamus or from some other plant of the same family. It may be chemically pure—or impure—whether marketed under the name hyoscin hydrobromid or scopolamin hydrobromid.

4. The Abbott Alkaloidal Company, therefore, has been misleading the medical profession of the United States regarding hyoscin in its "H-M-C" tablets, and has been doing this either deliberately, with the intention of deceiving for commercial gain, or from ignorance of well-known facts.

"CACTIN," WHAT IS IT?

We have shown that the "H-M-C" tablets of the Abbott Alkaloidal Co. are simply scopolamin-morphin plus "cactin." What is "cactin"? There is no such drug in the Pharmacopeia of the United States or in any other Pharmacopeia; it is not in the National nor in the United States Dispensatory; neither have we been able to find it in the price-lists or catalogues of the leading pharmaceutical firms of this or of any other country. There is a proprietary remedy called "Cactina Pillets," but "cactin" is presumably a different thing. What is it? Originally, the Abbott Alkaloidal Co.'s price-list defined it as a glucosid. Now, however, it is classed as "a concentration." Presumably it is a tincture of *Cactus grandiflorus*, but just what it is we do not know.[1] Whatever it is, it is a secret, and is a product of, and controlled by, the Abbott Alkaloidal Co., can be obtained of no one else, and, therefore, is a nostrum.

1. "Concentration" applied to pharmaceutical preparations is a loose term, originating with the eclectics and used to indicate the class of preparations obtained by extracting drugs and concentrating the extract by precipitating it in water, or by some similar process. The terms "concentration" and "resinoid" were regarded as practically synonymous, indicating a more or less indefinite dry mixture of the proximate principles of the plant whence derived. The only preparation of cactus used by the eclectics, so far as we can learn, has always been the so-called "green" or "specific" tincture. According to the accepted nomenclature of the U. S. Pharmacopeia, the name "cactin" should mean a glucosid or some other active principle. As a matter of fact, however, no active principle has ever been isolated from *Cactus grandiflorus*.

"CACTIN," WHAT ARE ITS THERAPEUTIC PROPERTIES?

But under the present circumstances it is immaterial what it is. It is more important to know what it will do, what its properties are. So far as we know, there is no reliable evidence of its having any virtue whatever. Dr. Abbott recently was asked in a society meeting whether his firm had made any physiologic test with it; he acknowledged that it had not.

While the firm itself has not put "cactin" to a physiologic test, others have. As will be remembered, Prof. Robert A. Hatcher made some experiments in the Loomis Laboratory of Cornell Medical College, New York, and his report was published in THE JOURNAL, September 21. His conclusions are: "These two preparations (cactina pillets of the Sultan Drug Co. and Abbott's cactin) are not only devoid of a digitalis-like or a strychnin-like action, but they are inert when used on animals in doses that are hundreds, and even thousands, of times as large as those recommended by their exploiters." It is now three months since Hatcher's article appeared, which is ample time for presentation of reliable evidence that his conclusions were wrong. No such evidence has yet been offered.

Prof. S. A. Mathews, of the Laboratory of Experimental Therapeutics of the University of Chicago, has been experimenting with the product and we have his report ready for publication. His conclusions, however, are the same as, and his work corroborates that of, Hatcher. The writer of these lines swallowed the pillets contained in a bottle labeled "Cardiac Tonic (cactin) (45) gr. 1-124. Gm. .0005," supposed to contain one hundred of the pillets. These were all taken within fifteen minutes, and the experiment was repeated at another time. No effect was appreciated; the pulse did not seem to be affected in the slightest, nor was there any change in the breathing. Possibly "cactin" has some mysterious power of acting only when the heart "wabbles." This experiment is not reported as a scientific one, but is given for what it is worth. Considering that there was taken at one time 100 times more than is contained in the smaller (No. 1) "H-M-C" tablet, one is prompted to conclude with those who performed the experiments on animals that *"cactin" is inert.* Our readers are asked to bear this in mind when reading the quotations below:

The following is not a "patent-medicine" advertisement, as some may think on reading it, but appears as a reading notice in the *New York Medical Journal* of Oct. 19, 1907:

"Whether the indication is a pulse which is too fast or too slow, too weak or too strong, if the cause is vasomotor instability, as in the tobacco heart, the heart of the drunk-

ard, some cases of menopause, overwork, etc., no remedy in the proper condition will do just what cactin will; no remedy will so quickly restore the necessary equilibrium as this; continued as required in 'dose enough,' no remedy will serve better. Cactin is a balancer, and it is this peculiar balancing action on the circulation, preventing regional dilation, which accounts for the wonderful and otherwise inexplicable effect of hyoscin-morphin-cactin compound as compared with hyoscin and morphin alone."

"Cactin" has the remarkable power of slowing the pulse if too fast, and of increasing it if too slow; of making it stronger if too weak, or making it weaker if too strong! Think of it! No wonder it has "a wonderful and otherwise inexplicable effect!"

"The value of cardiac stimulant, cactin, which is added to obviate any possible depressant effect, is also ignored by Wood; yet one of the first surgeons of the midwest [Lanphear?] assured the writer that he looked on this addition as of the first importance in rendering the combination perfectly safe."—(W. C. Abbott, *Fort Wayne Medical Journal*, May, 1907.)

The literature on "cactin" is of the character of the above two quotations.

CONCLUSION AS TO "CACTIN."

Comparing the results of physiologic experiments with the claims made by the Abbott Alkaloidal Company concerning "cactin," we leave it to our readers to decide for themselves whether or not "cactin" is a fraud.

CONCLUSION AS TO "H-M-C—ABBOTT."

To sum up the facts concerning the "H-M-C" tablets, it may be said that this mixture is nothing but scopolamin-morphin to which has been added an inert secret article called "cactin," thus adding mystery to it all and making out of this well-known and important combination of scopolamin-morphin a proprietary nostrum.

IODOFAN.

What It Is and What It Is Claimed to Be.

(From The Journal A. M. A., March 7, 1908.)

Within the last two or three years there has been placed on the German market a preparation known as iodofan. It is manufactured by the *Chemisches Institut*, Dr. A. Horowitz, Berlin. As it is quite possible that in time the preparation will be offered to physicians in this country, the following is appropriate:

Iodofan, according to the statements published by the manufacturers, is a chemical compound containing 47.75 per cent. of iodin. The article was analyzed by F. Zernik of the Pharmaceutical Institute of the University of Berlin, and was found to contain less than 5 per cent. of iodin. This report by Zernik appeared in the *Apotheker Zeitung*, Feb. 2, 1907.

As is usual in such cases, the manufacturers denied the correctness of this analysis and attacked Zernik, who again took up the matter. Two samples were taken, one being bought in the open market and the other obtained, through a physician, direct from the manufacturers. These were analyzed in duplicate by Lucius, who also is connected with the University of Berlin, as well as by Zernik. The results of these analyses agreed very closely and verified the original analysis published. In other words, it was again demonstrated that there is not one-tenth as much iodin in the preparation as the manufacturers claim. Zernik's second report was published in the *Medicinische Klinik*, Nov. 24, 1907.

It is of interest to note that while the work heretofore done at the University of Berlin has appeared only in pharmaceutical and chemical publications, it can now be found in medical journals. This is certainly encouraging, as it shows that the German medical journals are now accepting such contributions for publication even at the risk of losing advertising patronage.

JAYNE'S EXPECTORANT.

Dangers of Using the Remedy.

(*From The Journal A. M. A., March 14, 1908.*)

Newspapers recently chronicled the death of a child in Cincinnati from an overdose of a "patent medicine." We communicated with the coroner, who kindly sent us a copy of the verdict. After recounting in the usual fashion the name, age, etc., of the deceased, the verdict goes on to state:

> The testimony shows that this child had been troubled with a cough for the past five years; that he had always been quite pale and had slept a great deal. The statement is also made that in this family JAYNE'S EXPECTORANT had been used for all the children.
>
> This proprietary remedy has on its label the statement that each fluid ounce contains 15 per cent. of alcohol and one and one-fifth grains of opium. The single dose of this remedy given in this case could not have caused the child's death, but there is no doubt that the continued use of the remedy containing opium, even in a comparatively small dose, is harmful, and especially so to infants and children.

The pale color and the drowsiness can be accounted for by the prolonged use of opium, and the attention of parents can not be too strongly called to the danger of the use of such remedies for children as those that owe their efficacy to this drug. OTIS L. CAMERON, Coroner.

KARGON.

A Diuretic Nostrum and Its Composition.

(*From The Journal A. M. A., March 16, 1907, 967.*)

In response to requests for information regarding the composition of Kargon, we had the preparation analyzed. From the reports of our chemists this nostrum appears to contain potassium acetate and buchu as the essential constituents. One chemist concludes his report as follows: "This wonderful remedy, then, seems to be acetate of potash, about 15 grains to each teaspoonful, and fluid extract of buchu." Another chemist states: "Kargon contains buchu, potassium acetate, glycerol and 18 per cent. alcohol."

The nostrum is put up by the Kargon Extracting Company of Cincinnati, the title "extracting" evidently referring to the process to which the gullible public's purse is subjected. The mixture is advertised as "being composed of common every-day vegetable (?) ingredients" as being better than "patent medicines" which are largely "alcoholic concoctions." The method of advertising is as ingenious as it is misleading. Appearing, in many cases, as solid reading matter, it discourses on the importance of the free action of the kidneys as an essential to health. A harmless-looking prescription is then given, consisting of Fluid Extract of Dandelion, Compound Kargon and Compound Syrup of Sarsaparilla, which can "be procured from any good pharmacist and mixed at home." The "Compound Kargon" is always carefully sandwiched between the two pharmacopeial preparations with but one evident object in view, that of leading the public to suppose that Kargon is but one of the numerous standard diuretics. Of course, a combination of acetate of potash and fluid extract of buchu with fluid extract of dandelion and compound syrup of sarsaparilla makes an active diuretic. But it is a combination that in the majority of cases of kidney disease will do great harm. And no matter what the conditions, if used indiscriminately and "taken regularly," as the advertisements advocate, it can not be otherwise than dangerous.

KIDNEY PILLS AND SIMILAR NOSTRUMS.

Analysis of Remedies for Kidney Diseases.

(From The Journal A. M. A., Feb. 9, 1907, 534, and March 16, 1907, 959.)

The *British Medical Journal*, Dec. 8, 1906, page 1645, gives the results of analysis of some of the chief proprietary remedies for kidney diseases. Several of these preparations are in the form of pills, while others are liquids.

The two principal drugs employed are oil of juniper and potassium nitrate, separately or together; in some cases aperients are added. Altogether extravagant claims are made for some of the articles, as is usual with proprietary medicines.

Analysis of Doan's Backache Kidney Pills gave results from which the following formula giving a similar pill was constructed:

Oil of juniper	1 drop.
Hemlock pitch	10 gr.
Potassium nitrate	5 gr.
Powdered fenugreek	17 gr.
Wheat flour	4 gr.
Maize starch	2 gr.

Divide in twenty pills.

Forty pills and four dinner pills sell for 2 shillings and 9 pence (66 cents); the estimated cost is one halfpenny (one cent).

The dinner pills were found to have approximately the following composition:

Oil of peppermint	1 drop.
Podophyllin	3.8 gr.
Aloin	6.9 gr.
Jalap resin	0.8 gr.
Powdered capsicum	0.5 gr.
Powdered licorice	0.6 gr.
Maize starch	0.5 gr.
Acacia gum	1.5 gr.
Extract of henbane	1.5 gr.

Divide in twenty pills.

Dodd's Kidney Pills, which are advertised as the "only remedy that has cured Bright's disease," were found to consist of extract of cascarilla, jalap resin, hard soap, potassium nitrate, sodium bicarbonate, hard paraffin, turmeric, and wheat flour. Var's American Kidney Pills are similar to Doan's, containing also oil of peppermint and powdered squill and extract of henbane. Fitch's Kidney and Liver Cooler, a liquid preparation was found by the analyst to consist simply of a solution of potassium nitrate in water, 56 grains to the ounce—that is, 14 grains in a dose. The estimated cost of a bottle, containing rather under 4 ounces and selling for 2 shillings (48 cents), is one-eighth of a penny (¼ cent).

WARNER'S SAFE CURE.

This preparation, according to the literature supplied by the manufacturers, is "purely vegetable," says the *British Medical Journal*, and this predilection on the part of the public for vegetable remedies is probably responsible for potassium nitrate being classed as a vegetable. Analysis of this remedy showed "the presence of potassium nitrate, alcohol, glycerin, a trace of oil of wintergreen and vegetable extractive." No alkaloid or similar active principle was found and the extract had little distinctive taste or character, all its properties pointing strongly to its consisting largely of taraxacum, with some other extract containing a small quantity of tannin.

VENO'S SEAWEED TONIC.

The label on this preparation, according to our contemporary, states that the remedy "contains in a pleasant and agreeable form the active principle of seaweed . . . is prepared on an entirely new principle and is free from poisonous and mineral drugs." Analysis shows that the mixture contains "a small proportion of undissolved sediment, which, when collected and examined, agrees in all respects with the insoluble portion of leptandrin. Glycerin, a little phosphate, alcohol and a trace of chloroform are present and vegetable extractive. Careful examination of the latter gave evidence of the presence of the constituents of cascara sagrada, senna and rhubarb."

MUNYON'S KIDNEY CURE.

The label on this preparation is said to bear the words: "Cures Bright's disease, gravel, all urinary troubles, and pain in the back or groins from kidney diseases." It is stated that the pills were found to vary much in size, the average weight being 0.6 grain. Analysis showed them "to consist of ordinary white sugar; no trace could be detected of any alkaloid or other active principle, or of any medication. The sugar was determined quantitatively and found to be just 100 per cent. of the weight of the pilules."

KUTNOW'S POWDER.

Which Is It, a "Proprietary" or a "Patent" Medicine?

(*From The Journal A. M. A., Oct. 21, 1905.*)

The accompanying is a reproduction of a full-page advertisement from the *Standard*, one of the leading London dailies. The page of the *Standard* is larger than that of any American newspaper, the space occupied by the advertisement being 18

THE STANDARD, TUESDAY, FEBRUARY 20, 1906.

Prescribed for the Royal Family.

KUTNOW'S POWDER

Prescribed for the Royal Family.

FOR LIVER TORPOR, KIDNEY AILMENTS, CONSTIPATION, URIC ACIDÆMIA, LUMBAGO, RHEUMATISM, AND GOUT.

SIR JAMES CRICHTON BROWNE said that a prolongation of life is not desirable unless that life be vigorous and happy. Many of the quick-killing diseases that involve but brief disability and suffering, like typhus and typhoid fever, are decreasing, while slowly degenerative diseases, involving protracted invalidism and much misery, like Bright's disease, diabetes, and cirrhosis of the liver, are mounting up. Society has always had to pay for every mistake it makes, except when the habit of hygienic correction is cultivated. PROFESSOR LAWSON TAIT, M.D., recognised the importance of removing the débris of undigested food the morning after the banquet, and after careful investigation, not only prescribed Kutnow's Powder in his hospital and private practice, but used it personally for years with unqualified success. The secret of health is often found in the elimination of uric acid, and this is easily achieved by the morning health draught of Kutnow's Powder, taken before breakfast. It cleanses the stomach, sweeps the liver, flushes the kidneys, and clears the bowels. By this simple means the errors of excess in diet and drink are corrected, and the poisonous débris removed from the system. You can now try Kutnow's Powder free of charge!

YOU CAN TEST THE REMEDY FREE OF ALL COST!

FROM DOCTORS.

DR. J. BOND SULLIVAN

DR. I. N. LOVE. M.D.,

DR. LEON BLANC

LIVER TORPOR.

URIC ACID HEADACHE.

... delicate threads spread from the brain to every part of the body. They are wonderfully sensitive; the least thing disturbs their well-being. They are fed by the blood, and if the blood is infected by uric acid poison, the nerves are the first to feel it. Hence uric acid headache, which is the alarming danger-signal of worse trouble to follow unless checked or relieved. The treatment required is that which will dissolve and eliminate uric acid, thus restoring the system to a naturally healthy condition. In the opinion of the most distinguished physicians Kutnow's Powder exactly fulfils this office. You can test it free of charge.

KIDNEY TROUBLES.

FROM CLERGY.

REV. F. L. BULLEN

REV. F. G. RILEY, M.A.,

REV. C. E. WINCOTT

What a Baroness writes:

A University Graduate writes:

HOW TO DETECT FRAUDULENT IMITATIONS

The genuine and original Kutnow's Powder can be had from all conscientious Chemists at 2s. 9d. per bottle, or it will be sent direct from Kutnow's London Offices to any address in the United Kingdom for 3s. post-paid. Beware of spurious substitutes which are put up in bottles and packages to imitate the genuine Kutnow's Powder; sometimes the reading on the label is copied, and even a sham doctor's or other name is used in the place of "Kutnow" so as to deceive intending purchasers. On analysis these substituted articles have been proved to be absolutely worthless and often injurious. Insist on being supplied with Kutnow's Powder. See that the fac-simile signature, "S. Kutnow and Co., Ld.," and the registered trade mark, "Hirschensprung, or Deer Leap," appear on every package and bottle. You will then avoid fraud.

AND GET THE GENUINE KUTNOW'S POWDER.

A Celebrated Artist writes:

Sir John B. Monckton

FROM THE ARMY.

GENERAL DUNSTERVILLE

COLONEL R. J. VINCENT

COLONEL C. K. HALL

COLONEL J. C. GORE

NERVE EXHAUSTION.

HOW TO KEEP HEALTHY STAMINA.

FREE OF CHARGE!

FROM NURSES.

NURSE CROSS

NURSE PHILLIPS

NURSE A. WHUR

FORWARD AT ONCE THE APPLICATION FORM BELOW!

KUTNOW'S POWDER SENT FREE & POST-PAID

SEND YOUR FULL NAME AND ADDRESS AND GET KUTNOW'S POWDER FREE

(Write distinctly)

To S. Kutnow and Co., Ltd., 41, Farringdon-road, London, E.C.

Name ....

Address ....

(Standard, 20.2.06.)

If this Form be signed and posted in an open envelope, only ½d stamp need be affixed.

KUTNOW'S POWDER SENT FREE & POST-PAID

TO OBTAIN A FREE SAMPLE

Write to S. KUTNOW & CO., Limited, 41, Farringdon Road, London, E.C.

inches by 24 inches. We have an assortment of advertisements of Kutnow's powder clipped from English newspapers, showing, as our correspondent who sent them remarks, that this is one of the best advertised "patent" medicines in England. In this country it is one of the most widely advertised "proprietary" medicines, as will be noted by a reference to our medical journals. We had to reduce the advertisement to get it down to our page limit. It will be noticed that the testimonials from physicians—four of the six, we are proud to notice, are Americans[1]—are separated from those of the laity. This is wise, as the two do not mix well.

N. B.—We do not charge anything for inserting this advertisement, but give it as a specimen of the newspaper advertising of Kutnow's powder in England.

Muzzling the Press.

(From The Journal A. M. A., Aug. 31, 1907.)

The term "patent medicine" has been applied, rather loosely, to those nostrums sold and exploited directly to the public, while the name "proprietary" has been given such preparations as are advertised only to the medical profession. As has been many times exemplified by reports in THE JOURNAL, the distinction is often a very fine one and the dividing line frequently reaches the vanishing point.

It is not unusual, for instance, for "proprietary" preparations to be foisted on the medical profession until a certain number of testimonials (of doubtful value, it is true, but still testimonials) have been ingeniously wheedled out of physicians and the product rather generously prescribed. When this objective point has been reached the manufacturer comes into the open and advertises the nostrum to the public direct and the testimonials previously given for the "proprietary" are used as advertising assets for the "patent medicine."

Then again there are certain preparations which are "proprietaries" or "patent medicines" according to the location. On one side of the Atlantic the product is advertised to physicians only, while on the other side it runs indiscriminately on the billboards and in the newspapers. One of the best ex-

1. Of the Americans, Dr. A. A. O'Neill is a graduate of Jefferson Medical College, 1890. He is a member of the Chicago Medical Society. Dr. Edward E. Koehler is a graduate of Niagara University, Buffalo, 1894. Dr. William E. Jones is professor of chemistry and toxicology in University Medical College, Richmond, Va., and graduated from the University of Virginia in 1892.

amples of this last class is Kutnow's Powder. In England, where it originated, this preparation which "dissolves and eliminates uric acid," is consistently lined up with Beecham's Pills and Pink Pills for Pale People. Full-page newspaper advertisements announce the fact that free samples will be

. . . . . .

"SENT TO ALL APPLICANTS."

. . . . . .

In the United States, however, Kutnows' have learned from their wide advertising experience that a cheaper and surer way of introducing a nostrum to the public is to advertise it to the medical profession only. By means of advertisements in medical journals (whose space is much less expensive than that of the daily papers) and the liberal distribution of samples

. . . . . .

"SENT FREE TO PHYSICIANS ONLY."

. . . . . .

the medical profession becomes the unpaid "barker" for the nostrum manufacturer. At present, therefore, Kutnow's Powder is—in the United States—an ethical (!) "proprietary."

There exists in this country, as most of our readers know, an organization of "patent medicine" manufacturers whose "reason for being" is to get full value received for the $40,000,000 paid annually in advertising nostrums in the newspapers of the country. This organization is known as the Proprietary Association of America. The now familiar "red clause" in the advertising contracts by which the newspaper forfeits its contract if state laws are enacted that are inimical to the "patent medicine" interests, is a creation of this organization and has been most effective in making the newspapers the unpaid lobbyists of the nostrum interests. The "silence clause" is another "joker" in the contracts by which the agreement is cancelled if matter detrimental to the nostrum "is permitted to appear in the reading columns" of the paper. It is little wonder that with such weapons the "patent medicine" manufacturer has assumed an arrogance that is as disgusting as it is serious.

Great Britain, too, has its "patent medicine" men's organization, which is known as the Proprietary Articles Trades Association. Of both these honorable bodies Mr. S. Kutnow of Kutnow Brothers, Ltd., is, or was, a conspicuous member. At a recent meeting of the British organization, Mr. Kutnow worked himself into a fine frenzy of indignation because of some articles that had appeared in the *Pharmaceutical Journal* of London on the subject of "Secret Remedies and Proprie-

taries." As these articles did not specifically mention Kutnow's Powder, and as criticism was directed against only those preparations as were most disreputable, it is evident that Mr. Kutnow now appraises his own product at its face value. He gave his opinion of the *Pharmaceutical Journal* and told the meeting that when the advertising man for that journal solicited advertising he refused to have any more dealings with him owing to the articles that had appeared in the *Pharmaceutical Journal.* He expressed himself as quite independent of any newspaper or journal, and able to take care of himself.

Therein Mr. Kutnow is mistaken; he is not independent of newspapers and journals. On the contrary, he, and others of his ilk, are most subserviently dependent on them. Let reputable papers and medical journals refuse, for but one year, to carry the high-flown advertisements of his Anglo-American Patent-Proprietary, and his firm would perforce seek some worthier, if less profitable, line of business.

The editor of the *Pharmaceutical Journal* resents Mr. Kutnow's "implied assumption that by inserting paid announcements in the advertising columns of a newspaper, he or any one else, can dictate the policy of that organ."

The *Pharmaceutical Journal,* it should be said, is the official organ of the Pharmaceutical Society of Great Britain, and is the most influential organ of the drug trade in the British Isles. It is refreshing to note, in these days of "canned" editorials and paid "write-ups" masquerading as original articles, that there is still to be found a journal that can not be bought.

One wonders whether a large experience in the advertising world, and especially his membership in the Proprietary Association of America, has unconsciously led Mr. Kutnow to assume that muzzling the press is one of the perquisites of the large purchasers of advertising space.

MANOLA.

Unpaid Peddlers of Secret Nostrums.

(*From The Journal A. M. A., May 6, 1905, 1462.*)

Evidently there must be a considerable number of physicians in the United States who sell themselves cheaply. Last week we printed in this department a description of a scheme that a St. Louis chemical company had for getting the doctors to work for them for very small pay. This week we have to record another St. Louis firm in the same delightful business.

This scheme comes in the form of a triple postal card arrangement, on which the following liberal offer is made:

Dear Doctor: In order to give you an opportunity to further test the properties of our MANOLA TONIC, we make you the following liberal propositions: Fill out the attached cards Nos. 1 and 2, mail No. 1 to US and hand Nos. 2 and 3 TO YOUR DRUGGIST. Upon receipt of the order for 1 dozen MANOLA TONIC from your druggist we will send with his order 3 full size bottles of MANOLA TONIC free of charge to YOU.

Yours truly,
THE MANOLA COMPANY.

Card No. 1 is directed to the company, and the doctor is to fill in the name of his druggist, sign his name and put on the stamp. (The company ought to be willing to furnish the stamp.) On this card is this statement:

Gentlemen:—I have this day accepted your offer through Mr.————————————Druggist.

Card No. 2 is as follows:

Mr. ————————————, Druggist:

Please order of the Manola Company, St. Louis, Mo., 1 dozen MANOLA TONIC, all of which I agree to prescribe in my practice. By filling out the attached card No. 3 and forwarding it to the above company, they will forward me, with your order, 3 full-size bottles MANOLA TONIC free for clinical purposes.

Yours truly, ————————————M.D.

In this instance the poor doctor either has to put this card in an envelope and put on a two-cent stamp, or carry it to the druggist himself. As he will probably be a cheap doctor in any event, he will no doubt save the two cents.

Card No. 3 is as follows:

Date————————19

MANOLA COMPANY, St. Louis.

Gentlemen:—Please ship (me us), as per you roffer, 1 dozen MANOLA TONIC at $8.50 per dozen. ¼ dozen MANOLA TONIC free, for Dr. ————————————.

(Signed) ————————————Druggist.

Ship through my jobber.

Here we have the doctor not only used as an unpaid peddler for a secret remedy, but also as a club to make the druggist fill up his shelves with the stuff. Of course, the three bottles the doctor gets for his labor are to be given to his patients, who will thus become acquainted with what the preparation is good for, and will then buy it direct.

Certainly, it can not get very much worse, unless the nostrum manufacturers get the doctor to go on the street and peddle their stuff on a percentage.

Manola Prescribing and Its Results.

(*From The Journal A. M. A., Aug. 8, 1908.*)

MUSCODA, WIS., July 31, 1908.

To the Editor:—Enclosed is a copy of a letter sent to Dr. X. of Y., and his reply in the form of a marked advertisement

of Manola clipped from a medical (?) journal. The style of the advertisement sent would lead one to classify the product with "Peruna and the Bracers." The preparation was prescribed by Dr. X. for a Mr. Q., for a cough and "run-down" condition. Q. has been unable to do any work since he began taking it, but for three months he thought it benefited him, after which time he stopped taking it for three months and then took it again for five weeks. As he was emaciating rapidly and was troubled with high fever and night sweats, he came to me, and I found him in an advanced stage of pulmonary tuberculosis. The patient had wasted nearly eight months of precious time, closely housed and depending on the restorative virtues of Manola, instead of consulting a physician at a time when a properly regulated out-of-door life might have saved him. And all because Dr. X. prescribed Manola to be taken for several months.

Who is Dr. X. who did the prescribing? Polk's Register, 1906, records him as a graduate of a university in Germany; surgeon for the C., M. & St. P. Railway Company; member of the American Medical Association; member of the American Association of Railway Surgeons; member of the state historical society; medical examiner, etc. Shades of Æsculapius! This young man, now near death's door, asked me if Manola was not a good medicine, for, said he, "Dr. X., a very prominent physician, prescribed it to be taken continuously for a long time." And what could I, an insignificant doctor, reply? I said, "I don't know. I have not used it." And then I wished that I belonged to some other profession whose members are not "suckers" to bite at the bait of drug promoters and thus help them to fleece innocent persons while on the road to chronic invalidism and death. C. R. PICKERING, M.D.

COMMENT: The above is only one example—a typical one, however—of the results of nostrum prescribing. The physician who in the above instance prescribed Manola—an old practitioner, over 70 years of age—when asked by another practitioner for information regarding it, has to fall back on an advertisement. This is what the advertisement says:

"New strength can be given to the failing heart, tissue changes arrested, and senile decay indefinitely postponed by the prescription of MANOLA which furnishes to the exhausted cell protoplasm the inorganic elements necessary for a renewed and increased activity, improves the quality and quantity of the blood, supports the heart, tones up the nerves, induces refreshing sleep, and checks the decline of mental and bodily vigor.

"Manola can be depended on in all cases of loss of strength and weight in old and young alike."

A wonderful remedy, truly, that will do all this. Evidently Ponce de Leon in his search for the fountain of eternal youth labored under the insuperable disadvantage of being born 400

years too soon. Had he but known, the fluid he sought, which "indefinitely postpones senile decay" and "checks the decline of mental and bodily vigor" was to be found, not in the untrodden wilds of Florida early in the sixteenth century but in the "laboratory" of a nostrum manufacturer four centuries later.

Had this advertisement appeared in a newspaper and had one of Dr. X's patients consulted him regarding taking this "patent medicine"—for now it would be a "patent medicine"—he would most certainly have told the patient that it was foolish to believe such rubbish and not to waste his money on the stuff. And yet "Dr." Hartmann in his wildest flights of Perunaese oratory has never transcended in mendacious assertiveness the claims made for this "strictly ethical preparation."

Three years ago[1] we exposed the methods by which this nostrum was exploited, and concluded: "Here we have the doctor not only used as an unpaid peddler for a secret remedy, but also as a club to make the druggist fill his shelves with the stuff. . . . Certainly, it can not get much worse, unless the nostrum manufacturers get the doctor to go on the street and peddle their stuff on a percentage."

Manola illustrates another point: One of the curses connected with the nostrum business is the fact that many of the preparations are exploited by pseudo-pharmacal and pseudo-chemical companies. The Manola Company is reported as a side affair, and controlled by those who own the Luyties Homeopathic Pharmacy Company of St. Louis. What is the reason for creating a special company to exploit this nostrum? Is it because physicians might be prejudiced and not willing to buy from a homeopathic concern, or is it because the concern itself wishes to retain at least the outward semblance of decency?

The above case brings out another evil inseparable from nostrums. While the great majority are useless and most of them innocuous, they do harm in a negative way. The layman, depending upon the advertisements in the newspapers and believing what the advertisements state, takes a "patent medicine" and delays consulting a physician until too late. In the case of a physician, he, too, believes what the advertisement says, takes it for granted that he is doing what is right, neglects to study his case, to make a correct diagnosis, and to follow up the treatment by careful study of the case as it progresses.

---

1. THE JOURNAL A. M. A., May 6, 1905; see reproduction of same on page 193 of this pamphlet.

In a case like the above nothing can relieve the physician of his responsibility; he can not fall back on the advertisement. In the case of the patient taking a "patent medicine," he depends on his own judgment. In the case in question, the patient depended on one whom he believed knew what should be done. And the physician was false to his trust!!

MARIENBAD TABLETS.

The Commercial Value of a Name.

(*From The Journal A. M. A., July 18, 1908.*)

What potentialities exist in a name! The great watering places and health resorts of Europe are household words and their names compel attention. Hence, when a physician receives in his mail a package bearing a foreign postmark and an unusual looking stamp, with the name "Marienbad" on the enclosure, he may possibly restrain his first impulse, born of experience, to throw the "sample" into the waste basket. He may be excused for expecting to find something of unusual merit in a medicine elaborated at such a world-renowned health resort as Marienbad. Especially is his enthusiastic expectancy pardonable when he learns that "Marienbad Tablets" are "prepared according to the prescription" of an individual with the imposing cognomen, "Prof. Dr. Med. Chevalier de Basch."

Then, too, accompanying the "sample" is a circular descrip tive of the virtues of this great medicine, printed in parallel columns of massive German and picturesque English. In it he is informed that the "Marienbad Tablets act mildly, without pain on the bowels, and consequently effect their evacuation." Great stress is laid on the advantage of the "tablet-shape" which makes possible the "offering of a perfectly equal dose of the efficacious ingredients" and simplifies the administration "on account of their compendious shape." "Marienbad Tablets," he is told, are unexcelled for the treatment of that condition recognized by all physicians as "sanguiness and its after-effects, such as vergitiousness," and they are highly recommended in cases of "arteriosclerose." As a sop to Cerberus, the circular suggests "the diagnosis should be made by the physician," the assumption being that the proprietors of "Marienbad Tablets" will take care of the treatment while the prognosis will naturally take care of itself.

And the composition of this "compendious" cure for "sanguiness" and "vergitiousness"? Well, if carefully looked for,

the physician will find that "Marienbad Tablets" consist of extract of aloes, powdered rhubarb, podophyllin, extract of cascara sagrada and extract of belladonna. That is all; just a simple cathartic tablet such as physicians are prescribing for their patients daily. They do not even contain a picturesque, pharmacologic nonentity like cactin or "latalia rad." Wherein, then, lies the special virtue of their "efficacious ingredients"? We are forced to the conclusion that this must reside in the psychic effect produced by taking a silver-coated tablet from a gilt-trimmed box, labelled "Marienbad," rather than in the essential contents of the tablets themselves.

MUNYON'S PILE OINTMENT.

Other Patent Remedies for Piles.

(From The Journal A. M. A., Sept. 12, 1908.)

The investigation by the *British Medical Journal* (July 11, 1908) of the nostrums most extensively advertised for piles shows that the manufacturers rely either on local applications, internal remedies or both. The local remedies generally contain an emollient base, but few ingredients of active properties. One contained calomel, zinc oxid, phenol, beeswax and soft paraffin, and another lead acetate, creosote, resinoid substance, vegetable tissue, hard paraffin and oil of theobroma. The former preparation is used as an ointment, the latter as suppositories.

The preparation of the greatest interest to us is Munyon's Pile Ointment. The label states: "Munyon's Pile Ointment permanently cures all forms of piles or hemorrhoids and immediately relieves pain, burning, itching and distress at the outlet of the bowels."

According to the *British Medical Journal:* "Analysis showed the ointment to consist of soft paraffin, with a trace of ichthyol sufficient to give a slight odor, but not enough to affect the appearance of the ointment. Experiments showed that 0.2 per cent. or over of ichthyol appreciably darkens the color of soft paraffin, and it appears, therefore, that less than this proportion is present. Estimated cost of one ounce of the ointment, one farthing" (half a cent). Its price in England is one shilling (24 cents) a package.

PAS-AVENA.

How Its Formula Evades the Food and Drugs Act.

(From The Journal A. M. A., March 7, 1908)

Pas-Avena is a widely advertised "nerve sedative and hypnotic." The preparation is put on the market by the Pas-Avena Company of New York City. As a headliner the advertisements of the remedy state that the formula has always been on every bottle, and this, THE JOURNAL states, has a twofold object: It aims to give the impression that the preparation is non-secret, and it is calculated to inspire confidence in the—apparently—scientific nature of the product. As a matter of fact, it should do neither. The preparation is essentially secret in its composition because of the presence in the formula of an unknown quantity and the liability to change of formula at the whim of the manufacturer. On the bottles some time ago the following formula was given:

Each tablespoonful contains:

Passiflora	20 minims.
Avena sativa	10 minims.
Somnalgesine ($C_{30}H_{28}N_5O_3$)	2 grains.

The first two ingredients are plants in whose therapeutic value but little confidence is placed. Somnalgesine, the third constituent, is a secret preparation, the chemical formula of which the manufacturers were kind enough to add. To a chemist, however, the formula is absurd and impossible, and is included either because of the manufacturer's ignorance or because of an intent to deceive the profession. Since the Food and Drugs Act became law, the label of Pas-Avena has been changed to read:

Alcohol	8.37 per cent. by volume.
Anilipyrine	16.00 grains per fluid ounce.

Guaranteed under the Food and Drugs Act of June 30, 1906.

Substitution of anilipyrine for somnalgesine gives little more information. Chemists may recognize this as a name applied to a mixture said to be formed by the fusion of two molecules of antipyrin and one molecule of acetanilid. To physicians, however, the name carries with it the same mystery as did somnalgesine. Attention is directed to the fact that by publishing the guarantee under the pure food laws the company presumes to disperse all doubt and criticism, assuming that the majority of physicians will be satisfied with the guarantee as it stands. Inasmuch as the preparation contains acetanilid and antipyrin, however, the manufacturers are disregarding that part of the Food and Drugs Act which requires that the name of the parent substance—in this case acetanilid and antipyrin—be put in parenthesis. The laws are so well

defined that physicians appear to be content to do nothing, firmly believing that they are safe from the defrauding methods of unscrupulous manufacturers.

Proprietary House Insolvent—and Physicians Lose?

(From The Journal A. M. A., Oct. 17, 1908.)

The Pas Avena Chemical Company, whose product, Pas Avena, was exposed in THE JOURNAL a few months ago, has recently failed, according to our pharmaceutical exchanges. In recording the fact, one journal says:

> "It is reported that considerable stock of this company had been sold to physicians."

At this time, when physicians are importuned daily to invest money in various wildcat pharmaceutical concerns, this sentence might well be used "to point a moral or adorn a tale."

PEPTO-MANGAN (GUDE).

Scientific Work Misrepresented and Commercialized.

(From The Journal A. M. A., Sept. 23, 1908.)

In pursuance of the deliberately assumed purpose to enlighten the physicians of the United States on all features of the traffic in proprietary remedies, there will be offered to our readers not only information regarding the composition of such remedies, but also facts concerning the methods of their advertising and sale, which come to light in such shape as to be of service to the profession. No firm or product will be subjected to attack, but publicity will be given to all facts obtainable. Having in mind this purpose the following recital of facts is offered to the profession as an illustration of methods employed in the proprietary trade, and as a step in the era of pharmaceutic publicity.

Under date of Dec. 1, 1904, there was published by the government of Porto Rico a "Report of the Commission for the Study and Treatment of 'Anemia' in Porto Rico." The splendid scientific results of this study of uncinariasis we commented on editorially[1] February 11, page 478. A few weeks

---

1. This editorial brought from the Breitenbach Company a letter addressed to THE JOURNAL of the American Medical Association, which is worth quoting in this connection, and also in connection with the correspondence with the *Medical Record*, which follows. The italics are ours:

"It seems to us, in looking over the issue of your journal for Feb. 11, that the editorial department of your publication is quite at variance with your advertising pages. A short while ago we sent you a new electrotype stating that peptomangan was par-

ago the M. J. Breitenbach Company of New York circulated among physicians what purports to be an abstract of this report, claiming that "this report alone would suffice to establish pepto-mangan at once as the foremost hematinic known." Physicians, of course, realize that no other proprietary firm ever had so many "original" "write-ups" inserted in the reading pages of medical journals. It may fairly be said that the medical press has been subsidized by the Breitenbach Company to an extent equaled by no other. So in this instance, medical journals have recently been publishing as "reading notices," or as "publishers' notes," extracts from the company's pamphlet, especially made for the purpose. The Breitenbach Company having, as quoted, staked so much on the results of the commission's use of "pepto-mangan (Gude)," it becomes a matter of medical importance to look into the facts.

The commission treated, so far as covered in this report, 5,490 cases of uncinariasis. Of these it presented in detail the clinical histories of 61 cases. In 18 of these 61 cases the commission administered "pepto-mangan (Gude)," which had been donated by the Breitenbach Company. Of these 18 cases the Breitenbach Company says they "were selected on account of their extreme severity, and thus these cases represent the most crucial test to which any iron preparation can be subjected." Further, we are told: "The results obtained point so distinctly to the supremacy of 'pepto-mangan (Gude),'

---

ticularly applicable to the anemia of uncinariasis, and produced positive results if administered after proper treatment for the expulsion of the parasite. We did not make this statement until we had had conclusive proof from tests made by eminent men in the profession that such was the case. We make no haphazard statements ourselves. *It is evident that either your editors do not read the advertising pages of your journal, or they wish to make a direct slap at one of their advertisers, and we can hardly see how it is to be any advantage for us to place an advertisement with you, if in the editorial pages you are going to directly contradict our statements.* We refer to your editorial on page 478, in which you make the statement: 'The day of blind *reliance on iron, quinin, and tonics in general in the treatment of anemic conditions in tropical countries is past, never to return,*' and this in the face of our advertisement for which we pay you. It looks to us a little like taking our money and in turn going out of your way to slap us in the face, for had that paragraph been omitted from your editorial, we think you will agree with us that the value of the article would have in no way been lessened, and we should feel in a very different frame of mind than we do now. Had it been written by one of your contributors we would have let the statement pass, and set it down to ignorance, but, coming as it does from your editors, *who should be thoroughly conversant with the advertisements you carry,* we can not but feel that is is *very unfriendly* toward us.

"We shall be glad to hear from you on the subject."

Case No.	Name	Age	Color	Diagnosis	Condition before Treatment	Period of Treatment
I.	E. F.	18 mos.	White	Pseudo-Leukaemia	Hopeless	15 weeks 3 days
II.	K. F.	2 years	"	Anaemia following Acute-Ileo-Colitis	Very poor	15 " 3 "
III.	J. F.	22 mos.	Colored	Anaemia following Pneumonia Marked Rickets	Fair	15 " 2 "
IV.	C. V.	19 mos.	White	Anaemia following Pneumonia Tuberculosis	Poor	15 "
V.	H. V.	19 mos.	"	Anaemia following Measles Broncho-Pneumonia Tubercular Bronchial Glands	Fair	15 " "
VI.	W. C.	20 mos.	"	Anaemia following Whooping-Cough Tuberculosis	Fair	16 "
VII	C. S.	16 years	Colored	Anaemia following Double Cervical Adenitis (Tuberculous)	Good	10 "
VIII.	R. R.	21 mos.	White	Anaemia following Broncho-Pneumonia (Convalescent)	Poor	14 "
IX.	E. F.	29 mos.	"	Anaemia following Entero-Colitis (Convalescent)	Fair	14 "
X.	D. S.	10 years	"	Anaemia accompanying Pneumonia Pleurisy	Fair	13 " 5 "
XI	R. F.	2 years	"	Anaemia following Whooping-Cough (Convalescent)	Fair	13 "
XII.	L. C.	18 mos	"	Anaemia following Measles. Broncho Pneumonia. Diphtheria (Convalescent)	Fair	12 "
XIII.	D. H.	5 years 3 mos	"	Anaemia following Whooping Cough Retro Pharyngeal abscess (Cervical) Cervical Adenitis, tubercular.	Fair	11 "
XIV.	W. T.	2 years 4 mos.	"	Anaemia following Pertussis (Convalescent)	Poor	12 "
XV.	K. C.	11 years	"	Anaemia following Entero-Colitis (Convalescent)	Good	12 "
XVI.	W. S.	22 mos.	"	Anaemia accompanying Acute Epiphysitis of left femur? tubercular	Bad	9 "
XVII.	D. S.	3 years	"	Anaemia accompanying Hydrocephalus. Post Operative	Good	17 "
XVIII.	W. B.	3 years 8 mos.	"	Anaemia following Ileo-Colitis (Convalescent)	Bad	15 "
XIX.	W. B	3 years 6 mos.	Colored	Anaemia following Enteritis (Convalescent) Pulmonary Tuberculosis	Hopeless	14 " 6 "
XX.	J. B.	28 mos.	White	Anaemia accompanying Summer-Diarrhoea	Bad	12 "
XXI.	W. W.	2 years 10 mos.	"	Anaemia accompanying Summer-Diarrhoea	Hopeless	10 "
XXII.	R. S.	7 mos	"	Anaemia following Gastro-Enteritis (Convalescent)	Hopeless	5 "
XXIII.	L. S.	20 years	"	Simple Anaemia	Fair	21 "
XXIV.	L. K.	9 years	"	Simple Anaemia	Fair	15 "
XXV.	V. S.	2 years	"	Anaemia accompanying Acute Gastro-Enteritis	Poor	17 "
XXVI.	F. C.	3 years	"	Anaemia accompanying Syphilitic periostitis (disease of fellow boarder)	Very poor	12 " 3 "
XXVII.	F. B.	3 years 6 mos	"	Anaemia accompanying Pott's disease (Psoas Abscess)	Poor	10 "
XXVIII	F. S.	22 years	"	Simple Anaemia	Fair	13 "
XXIX.	J. D.	4 years	"	Anaemia accompanying Pott's disease.	Poor	15 "
XXX.	M. G.	10 years	"	Anaemia accompanying Sarcoma of scapula	Hopeless	18 "
XXXI.	L. C	7 years 4 mos.	"	Simple Anaemia	Fair	2 "
XXXII.	R. F.	5 years 6 mos.	"	Simple Anaemia	Poor	12 "

The above table is reproduced from a sheet 11 by 14½ inches. which is a part of the pamphlet. On the top of the sheet is the following in display heading: "Comparative table of 32 cases of Infantile Anemia treated at the City Infants' Hospital, Randall's

Red Cells			Haemoglobin			White Cells			Result
1st Count	2nd Count	3rd Count	1st Examination	2nd Examination	3rd Examination	1st Count	2nd Count	3rd Count	
2.366.090	3.466.666		20 %	58 %		16.000	8.000		Improving rapidly
2.533.333	4.851.851		40 %	75 %		10.000	7.133		Cured
3.120.000	4.580.000		40 %	68 %		6.925	6.200		Cured
2.533.333	3.967.444		40 %	64 %		15.320	10.600		Improved
3.132.000	4.580.851	3.012.300	57 %	69 %	40 %	5.600	12.300	15.400	Died
3.200.000	5.122.222		37 %	64 %		19.000	12.000		Cured
3.780.000	4.600.000		75 %	80 %		15.200	7.400		Improved
3.845.714	3.970.370		39 %	54 %		12.700	7.800		Cured
3.128.000	5.195.555		47 %	70 %		5.900	6.200		Cured
3.720.000	5.213.333		48 %	78 %		10.400	5.900		Cured
3.576.000	4.766.666		45 %	67 %		15.350	6.300		Cured
3.780.000	4.249.000		44 %	58 %		10.000	8.800		Improved
5.400.000	5.277.777		70 %	65 %		10.000	12.700		Improvement very pronounced
2.972.000	4.354.444		43 %	74 %		8.000	7.200		Cured
4.590.666	6.700.000		60 %	78 %		9.100	7.200		Cured
2.904.000	3.872.222		40 %	64 %		11.600	10.800		Improved
5.364.562	3.007.602	3.472.222	82 %	58 %	68 %	5.620	7.830	9.200	Improved
4.360.444	5.029.602		48 %	62 %		14.700	12.600		Cured
3.947.676	4.977.777		42 %	58 %		10.500	9.500		Cured
3.280.000	4.313.333		39 %	60 %		14.800	10.700		Cured
3.950.492	4.492.592		48 %	58 %		20.300	17.200		Cured
2.989.798	3.203.703		38 %	56 %		10.600	6.900		Cured
4.798.454	5.193.333		60 %	80 %		7.000	6.900		Cured
4.678.594	5.289.989		72 %	82 %		7.100	6.400		Cured
3.254.698	4.898.564		44 %	66 %		11.200	8.400		Cured
3.984.999	3.796.874	3.674.978	34 %	40 %	38 %	14.600	14.000	16.000	Not improved
3.394.656	4.132.222		36 %	48 %		10.000	9.400		Improved remarkably
4.463.676	5.298.762		66 %	80 %		9.800	7.600		Cured
3.979.888	4.898.788		66 %	76 %		9.000	7.800		Improved remarkably
2.875.555	2.974.000		34 %	32 %		16.000	17.500		Died
3.936.666	4.897.000		66 %	78 %		7.200	6.200		Cured
4.234.666	5.455.333		66 %	78 %		7.200	6.100		Cured

Island, New York City, during a period of four months with Gude's Pepto Mangan. By Dr. Mateo M. Guillen, House Physician and Surgeon."

etc., and 'the report may be regarded as a supreme test' and 'as a triumph for pepto-mangan (Gude).'"

With these claims before us it is more than interesting to analyze the reports of the cases from which they are drawn. In 14 of the 18 "pepto-mangan (Gude)" cases that combination was the only iron preparation used; in the remaining 4 Blaud's pill was used during the latter part of treatment. In the other 43 cases (not mentioned in the Breitenbach pamphlet) the iron was administered in the form of Vallet's mass or Blaud's pill, either or both, with the exception of two cases in which no iron was used. In closing its report the commission notes that iron alone without expulsion of the uncinaria is of little benefit and plays a part secondary to anthelmintics. Therefore, in this "supreme test," the relative value of the hematinic used will be largely determined by the time consumed in relieving the symptomatic anemia after removal of the parasitic cause.

Analyzing the 61 cases the following facts come to light, and it should here be noted that nothing in the original report indicates the "extreme severity" of the "pepto-mangan (Gude)" cases as compared with those in which other iron preparations were used. For the present purpose it is sufficient to compare the "pepto-mangan (Gude)" cases with those in which Blaud's pill alone was used:

	Cases.	Av. time of treatment. Days.
"Pepto-mangan (Gude)" case reported cured	9	79.77
"Pepto-mangan (Gude)" cases reported cured in which Blaud's pill was used in latter part of treatment	5	74.8
Blaud's pill cases reported cured	26	49

Two "pepto-mangan (Gude)" cases were reported "improved" in an average treatment time of 87 days, while the other two were fatal cases. This "supreme test" then shows that the patients treated with Blaud's pill recovered from the anemia in less than two-thirds of the time required when "pepto-mangan (Gude)" was used. On this point the commission itself says (page 119): "Thus it is quite difficult to accurately judge the comparative value of different iron preparations, yet it is noticed, even by some patients, that Blaud's pill gave more rapid results."

In the face of these clinical facts and of this plain declaration from the commission, the physician may well ask: Why in the name of prudence did the Breitenbach Company circulate a pamphlet and advertise in medical journals a claim that "this report alone would suffice to establish pepto-mangan at once as the foremost hematinic known?" As the re-

port actually draws a contrary lesson, the course of the company can only be explained either as due to its exaggerated confidence in the credulity of physicians or to its own neglect to read the report before abstracting it. Which hypothesis is most probable? Physicians who have read the "write ups" of "pepto-mangan (Gude)" appearing in nearly all the medical journals of the country will have no difficulty in answering this question. Lastly, what of the honesty of circulating among medical men so misleading a document?

Letter from the Porto Rico Anemia Commission.

(From The Journal A. M. A., Oct. 7, 1906, 1099.)

AIBONITO, P. R., Sept. 18, 1905.

To the Editor:—It has come to our notice that the report of this commission, published Dec. 1, 1904, is being used by the manufacturers of Gude's pepto-mangan to advertise their preparation of iron. As this advertisement puts us in a very unenviable and erroneous light before the medical profession generally, will you be kind enough to publish the following statement?

The advertisement in question purports to be a review of this report and, having attracted attention, proceeds by erroneous deductions and half-quotations in such a manner that one might believe that the commission indorsed their preparation of iron as the best hematic in the treatment of the anemia of uncinariasis.

As a matter of fact, the report (page 119) clearly states that we found the carbonate of iron to give the best results. Our report, on account of the limited edition, has never reached the majority of our professional brethren, and for this reason we quote the portion referred to:

"It will be noticed that slight cases readily recover without iron, and here the difference in the tables is more marked, while there is less difference among the marked cases in proportion to their number. In other words, the more resistant cases of all grades received iron, but even then did not generally recover as rapidly as those less rebellious without, for while ferruginous preparations seem to act readily in some instances, still, in the majority, its effect was not marked. The rapidity of cure is due, apparently, more to the personal equation of the patient and the rapidity with which the parasites are expelled, than to the amount of reconstructive treatment. Thus it is quite difficult accurately to judge the comparative value of different iron preparations, yet it was noticed, even by some patients, that Blaud's pills gave more rapid results."

We do not believe that a perusal of the histories of the eighteen cases which the advertisement quotes demonstrates the superiority of pepto-mangan (Gude), as these patients recovered more slowly than others of the same type who took Blaud's pills or Vallet's mass. In fact, on account of this slow recovery the carbonate of iron was substituted for pepto-mangan in five of the eighteen cases (Cases 8, 9, 10, 13 and 15). We ceased to use pepto-mangan and gave none to the later cases.

To support our statement we invite attention to the following figures taken from the very report which the Breitenbach Company cite as proving the superiority of their preparation:

There are sixty-one cases reported in full with complete blood records and clinical histories. In eighteen of them pepto-mangan was used save toward the termination of five of them, when Blaud's pills were substituted. In eleven cases Vallet's mass was used, supplemented by Blaud's pills. In twenty-nine cases Blaud's pills were used exclusively. Three cases have no bearing on the subject.

Reconstructive. treatment.	Pepto-mangan (Gude).	Blaud's pills.	Vallet's mass.
Average hemoglobin before treatment, per cent.....	20.7	26.5	18.1
Average number days under treatment	80.7	47.9	69.8
Average gain in hemoglobin during treatment per cent.	62.3	66.8	66.6

But to bring out the difference between these drugs more vividly eighteen pairs of cases of like type have been tabulated, whose initial hemoglobins absolutely or nearly correspond. One of each pair was treated by Blaud's pills, the other by pepto-mangan. The demonstration is all the more potent in that both drugs were used in their true rôle as blood regenerators, with thymol administered to both alike.

That is to say, of eighteen pairs of almost identical cases, the initial average of hemoglobin percentage in the cases treated by Blaud's pills was 21.9; in those treated by pepto-mangan (Gude), 20.7; the average number of days under treatment was 48.7 in the cases treated by Blaud's pills; in those treated by pepto-mangan (Gude), 80.7; the average gain in hemoglobin under Blaud's pills was 68.1 per cent.; under pepto-mangan (Gude), 62.3 per cent.

We tried to use a variety of iron preparations and were offered the pepto-manganates made by this company. We had no idea that this preparation differed essentially from any other pepto-manganate of iron, and it certainly may not, but had we considered the pepto-manganates of superior value as blood regenerators we would have said so. As it is, we

have said the contrary and wrote this company to that effect at the time we became convinced of it.

Case. No.	Form of Iron used	Hemoglobin before treatment.	Days under treatment.	Total gain hemoglobin.
1.	Pepto-mangan ...	33	100	68
56.	Blaud's pills	33	56	70
3.	Pepto-mangan ...	25	71	78
52.	Blaud's pills	25	36	75
4.	Pepto-mangan ...	28	97	72
50.	Blaud's pills	27	36	75
6.	Pepto-mangan ...	22	101	48
25.	Blaud's pills	22	43	78
7.	Pepto-mangan ...	10	63	93
28.	Blaud's pills	11	71	90
8.	Pepto-mangan ...	34	101	44
46.	Blaud's pills	35	36	69
9.	Pepto-mangan ...	20	99	83
43.	Blaud's pills	20	50	81
10.	Pepto-mangan ...	20	92	84
51.	Blaud's pills	20	50	63
11.	Pepto-mangan ...	32	95	48
47.	Blaud's pills	32	36	70
12.	Pepto-mangan ...	27	80	3
53.	Blaud's pills	25	50	84
13.	Pepto-mangan ...	14	94	95
23.	Blaud's pills	14	50	66
14.	Pepto-mangan ...	16	93	85
45.	Blaud's pills	16	57	46
15.	Pepto-mangan ...	11	84	99
22.	Blaud's pills	12	71	92
16.	Pepto-mangan ...	20	92	70
60.	Blaud's pills	19	28	71
17.	Pepto-mangan ...	9	36	6
21.	Blaud's pills	13	71	89
18.	Pepto-mangan ...	16	98	66
59.	Blaud's pills	18	53	57
19.	Pepto-mangan ...	28	49	75
42.	Blaud's pills	31	57	3
33.	Pepto-mangan ...	9	8	6
20.	Blaud's pills	22	27	48

This commission does not wish to be understood to consider the use of reconstructive treatment as a necessity in the anemia of uncinariasis. Such an idea is all the more absurd in view of the fact that in the 12,000 treated under its direction since June 1, 1905, comparatively little reconstructive treatment has been used, many cases receiving none at all. As our experience with this disease widens, our opinion is strengthened that anthelmintic treatment is not only curative, but promptly so, in the vast majority of cases, iron or no iron. Thanking you in advance for the use of your columns, we are, very truly yours,

BAILEY K. ASHFORD,
W. W. KING,
PEDRO GUTIERREZ YGARAVIDEZ,
Members of the Commission.

We do not believe that a perusal of the histories of the eighteen cases which the advertisement quotes demonstrates the superiority of pepto-mangan (Gude), as these patients recovered more slowly than others of the same type who took Blaud's pills or Vallet's mass. In fact, on account of this slow recovery the carbonate of iron was substituted for pepto-mangan in five of the eighteen cases (Cases 8, 9, 10, 13 and 15). We ceased to use pepto-mangan and gave none to the later cases.

To support our statement we invite attention to the following figures taken from the very report which the Breitenbach Company cite as proving the superiority of their preparation:

There are sixty-one cases reported in full with complete blood records and clinical histories. In eighteen of them pepto-mangan was used save toward the termination of five of them, when Blaud's pills were substituted. In eleven cases Vallet's mass was used, supplemented by Blaud's pills. In twenty-nine cases Blaud's pills were used exclusively. Three cases have no bearing on the subject.

Reconstructive. treatment.	Pepto-mangan (Gude).	Blaud's pills.	Vallet's mass.
Average hemoglobin before treatment, per cent.....	20.7	26.5	18.1
Average number days under treatment	80.7	47.9	69.8
Average gain in hemoglobin during treatment per cent.	62.3	66.8	66.6

But to bring out the difference between these drugs more vividly eighteen pairs of cases of like type have been tabulated, whose initial hemoglobins absolutely or nearly correspond. One of each pair was treated by Blaud's pills, the other by pepto-mangan. The demonstration is all the more potent in that both drugs were used in their true rôle as blood regenerators, with thymol administered to both alike.

That is to say, of eighteen pairs of almost identical cases, the initial average of hemoglobin percentage in the cases treated by Blaud's pills was 21.9; in those treated by pepto-mangan (Gude), 20.7; the average number of days under treatment was 48.7 in the cases treated by Blaud's pills; in those treated by pepto-mangan (Gude), 80.7; the average gain in hemoglobin under Blaud's pills was 68.1 per cent.; under pepto-mangan (Gude), 62.3 per cent.

We tried to use a variety of iron preparations and were offered the pepto-manganates made by this company. We had no idea that this preparation differed essentially from any other pepto-manganate of iron, and it certainly may not, but had we considered the pepto-manganates of superior value as blood regenerators we would have said so. As it is, we

have said the contrary and wrote this company to that effect at the time we became convinced of it.

Case. No.	Form of Iron used	Hemoglobin before treatment.	Days under treatment.	Total gain hemoglobin.
1.	Pepto-mangan ...	33	100	68
56.	Blaud's pills	33	56	70
3.	Pepto-mangan ...	25	71	78
52.	Blaud's pills	25	36	75
4.	Pepto-mangan ...	28	97	72
50.	Blaud's pills	27	36	75
6.	Pepto-mangan ...	22	101	48
25.	Blaud's pills	22	43	78
7.	Pepto-mangan ...	10	63	93
28.	Blaud's pills	11	71	90
8.	Pepto-mangan ...	34	101	44
46.	Blaud's pills	35	36	69
9.	Pepto-mangan ...	20	99	83
43.	Blaud's pills	20	50	81
10.	Pepto-mangan ...	20	92	84
51.	Blaud's pills	20	50	63
11.	Pepto-mangan ...	32	95	48
47.	Blaud's pills	32	36	70
12.	Pepto-mangan ...	27	80	3
53.	Blaud's pills	25	50	84
13.	Pepto-mangan ...	14	94	95
23.	Blaud's pills	14	50	66
14.	Pepto-mangan ...	16	93	85
45.	Blaud's pills	16	57	46
15.	Pepto-mangan ...	11	84	99
22.	Blaud's pills	12	71	92
16.	Pepto-mangan ...	20	92	70
60.	Blaud's pills	19	28	71
17.	Pepto-mangan ...	9	36	6
21.	Blaud's pills	13	71	89
18.	Pepto-mangan ...	16	98	66
59.	Blaud's pills	18	53	57
19.	Pepto-mangan ...	28	49	75
42.	Blaud's pills	31	57	3
33.	Pepto-mangan ...	9	8	6
20.	Blaud's pills	22	27	48

This commission does not wish to be understood to consider the use of reconstructive treatment as a necessity in the anemia of uncinariasis. Such an idea is all the more absurd in view of the fact that in the 12,000 treated under its direction since June 1, 1905, comparatively little reconstructive treatment has been used, many cases receiving none at all. As our experience with this disease widens, our opinion is strengthened that anthelmintic treatment is not only curative, but promptly so, in the vast majority of cases, iron or no iron. Thanking you in advance for the use of your columns, we are, very truly yours,

BAILEY K. ASHFORD,
W. W. KING,
PEDRO GUTIERREZ YGARAVIDEZ,
Members of the Commission.

An Investigation Into the Reliability of an Alleged Scientific Report.

(From The Journal A. M. A., April 6, 1907, 1197.)

In THE JOURNAL, Sept. 23, 1905, we exposed the misuse, by the exploiters of Pepto-Mangan, of the government report on anemia in Porto Rico. The conclusion of the Government Commission, which investigated the anemia prevalent in Porto Rico, was that iron was of subsidiary importance in treatment, and that the carbonate, as represented by Blaud's pills, seemed to give the best results. Immediately Messrs. M. J. Breitenbach & Co. used this report to exploit their preparation (Pepto-Mangan)—first in advertisements and reading notices and later in a garbled extract of the report printed in pamphlet form and scattered broadcast among physicians. This pamphlet conveyed the idea that Pepto-Mangan had been endorsed by the government as superior to any other iron preparation, and that it had proved most efficacious in the treatment of anemia; that "this report alone would suffice to establish Pepto-Mangan at once as the foremost hematinic known." The Commission later published a denial, stating that Pepto-Mangan was used by them only for a little while, because it was found to be of even less value than other iron preparations.

Some months ago another pamphlet was sent out by the same company purporting to give the results of the treatment of 32 cases of "infantile anemia" at the Infants' Hospital, Randall's Island, New York City. The report was written by Mateo M. Guillen, designated as house physician and surgeon. A cursory examination of this pamphlet showed that five of the 32 cases cited had an initial blood count of over 4,500,000 erythrocytes, and one over 70 per cent. hemoglobin, with nearly 4,000,000 reds. Thus 18 per cent. of the cases cited could not be classified as anemia. Moreover, in 26 cases the anemia had followed some acute disease or the patients were convalescent from such a disease. In either case, spontaneous improvement was naturally to be expected.

THE UNRELIABLE REPORT.

These facts aroused suspicion and suggested further investigation. Accordingly, we had the books of the hospital inspected by a competent representative, who devoted considerable time to a careful examination of the original records of the hospital. His report follows:

> "In reply to your request that I examine into the authenticity of the cases advertised as having been treated with Pepto-Mangan at the City Hospital, Randall's Island, I am able to make the following report, after a thorough

examination of the records of the hospital in the clerk's office, the daily charts and the physicians' order books.

"Dr. Mateo M. Guillen, house physician in 1902, whose name is attached to the report as having treated the cases with Pepto-Mangan, has been in South America since that time. Through the kindness of Dr. William L. Stowell, visiting physician at the Infants' Hospital, I was furnished with the full names and data of the patients whose cases are reported, so I was able to get the correct histories of them in the hospital records. Dr. Stowell informed me that he was aware that *some* of the patients had received Pepto-Mangan simply as one form of iron, though he believed the simpler forms of iron preferable, and that if I would trace the treatment in the cases I would doubtless find the simpler forms of iron prescribed.

"Examination of the hospital records and daily charts of the cases show remarkable discrepancies from the results and treatment as advertised in the Pepto-Mangan pamphlet. Some of the most striking are the following:

"Three patients, reported in the pamphlet as *cured* through the use of Pepto-Mangan, the hospital records show *died*, viz.:

"Case II, K. T. (Katie Turner).

"Case XIX, W. B. (William Barkdale).

"Case XXII, R. S. (Reuben Schehr).

"The results in all the cases are advertised as being obtained by Pepto-Mangan. On the contrary, the daily charts and the doctor's order books show that some of the patients *never* received Pepto-Mangan. For instance, in Case XII, L. C. (Lillian Codney), instead of Pepto-Mangan, was given *syrupus ferri iodini*, and at other times maltzyme and liquid peptonoids and various local, external and symptomatic medicines, but at no time was Pepto-Mangan prescribed.

"Similarly, in Case XIII, I. H. (Irene Harowitz) was never given Pepto-Mangan.

"The charts of Case IV, C, V. (Catherine Vaugh) show that Pepto-Mangan was only prescribed once, and at other times she was given *syrupus ferri iodidi*.

"Similarly, the charts of Case V, H. V. (Helen Vaugh) show that Pepto-Mangan was only prescribed once, and at other times was given *syrupus ferri iodidi*.

"In Case XVIII, W. B. (William Born) was given Pepto-Mangan on July 19, but it was discontinued on August 13, although the pamphlet states that he was under treatment fifteen weeks.

"In Case X, D. S. (David Smulewitz) was given syrup of hypophosphites and cod-liver oil along with the Pepto-Mangan.

"I was informed by Dr. Oberdorfer, who was on the hospital staff at the same time, that in Case I, E. P. (Eva

Pases), though Pepto-Mangan was given, arsenic was pushed in *very large doses.*

"Of the thirty-two cases reported in the Pepto-Mangan pamphlet, only twenty-two were reported by Dr. Stowell, and among the history charts for that period I was unable to find any cases corresponding to the initials of the additional ten cases.

"I hereby swear that the above statements are correct data taken from the records of the City Infants' Hospital, Randall's Island, and am able at any time to prove them by the mentioned records. GEORGE M. GELSER."

[Mr. Gelser is a senior student in the medical department of Cornell University.]

SUMMARY.

This throws a somewhat different light on the impressive report of thirty-two cases. Analysing the results obtained, we find that 13 cases, namely, Cases VII, XV, XXI, and all of the cases from XXIII to XXXII, were not found on the hospital records. The table in the pamphlet shows that the patient in Case V died. The hospital records show that Patients II, XIX and XXII, which were reported as cured, also died. The records also show that in Cases XII and XIII Pepto-Mangan was never given; that in Cases IV and V but a single dose was given; that in Cases I and X this preparation was given in conjunction with other preparations, such as syrup of hypophosphites and iron, cod-liver oil, etc., which can certainly claim a share in the results. In Case XVIII, in which the report says Pepto-Mangan was given for fifteen weeks, the records show that it was given but three weeks and a half. Cases XIII, XV and XVII are not cases of anemia at all. Striking these from the table, we have left eight cases entered on the hospital records, in which there is evidence that Gude's Pepto-Mangan was administered. But the table itself shows that seven of them, namely Cases III, VI, VIII, IX, XI XIV and XX, were entered as convalescent at the time of beginning treatment, the anemia following some acute disease, such as pneumonia, whooping-cough, bronchopneumonia, enterocolitis and summer diarrhea. In all of these cases, anemia is to be expected during the height of the disease, and rapid recovery from the anemia, as soon as convalescence is established, would also be observed in 95 per cent. of all cases which received ordinary care and nourishment, regardless of medication. The imposing and delusive chart which has, on first sight, such an ultra-scientific appearance, melts down under impartial investigation to a single case which is in any sense worthy of consideration. Case XVI is reported as that of a child, 22 months old, suffering from

anemia, accompanying acute tubercular epiphysitis. In this case, Pepto-Mangan was given for nine weeks. An increase of red blood corpuscles from 2,904,000 to 3,872,222, and an increase of hemoglobin from 40 to 64 per cent. took place in the same period. Even the sanguine and optimistic author of the pamphlet and the compiler of the chart does not venture to record this case as anything more than improved.

PREVALENT DISREGARD OF TRUTH.

Two things may be learned from this interesting analysis. The first is that so-called scientific reports are only of value in proportion to the veracity and reliability of the writer. Unless the statements of the author are founded on scientifically established facts, they are delusive and as dangerous as the false lights of a shipwrecker or the decoy signals of a train robber. It seems incredible that any physician having the slightest conception of the dignity and honor of the profession would deliberately falsify and distort hospital records for the sake of the pittance offered by proprietary houses, whose preparations he lauds, or for the sake of the cheap notoriety which he obtains while lending his name to such a deception.

The second and equally deplorable fact is that firms composed of men who are personally honorable seek to obtain business by means of such unjustifiable methods. It might be said in defense that the M. J. Breitenbach Company did not investigate the statements set forth in the pamphlet, and that it relied on the truthfulness of the writer. This does not relieve the firm of its responsibility.

There is an apparent tendency on the part of proprietary houses to accept any report, statement or testimonial, no matter how obviously absurd, distorted or highly colored—if only it be favorable to their preparations—and to eliminate and to suppress any unfavorable reports or facts. This tendency has helped to produce the present deplorable conditions in the proprietary medicine business. Such methods are not scientific; they are not even in accord with the ordinary principles of business honesty, which are supposed to obtain among reputable merchants. An honorable and legitimate business should have a better foundation than advertising matter which will not stand investigation.

PHENALGIN—A TYPICAL EXAMPLE.

(*From The Journal A. M. A., Jan. 13, 1906, 134 and Jan. 27, 1906, 290.*)

Last June[1] we devoted considerable space to the extravagant therapeutic claims made for "Phenalgin" by its vendors. At this time we propose to refer to the misinformation—to use a conservative term—that the Etna Chemical Company has promulgated regarding the composition of their preparation.

Last June the Council on Pharmacy and Chemistry officially published to the medical profession of the United States the information that repeated examinations showed that "Phenalgin" is a simple mixture of acetanilid and sodium bicarb. or ammonium carb. So far as we know, no direct denial of the truth of this has been made. There has appeared what we presume is meant as an answer; it is couched in this sentence.

> "PHENALGIN IS JUST WHAT WE HAVE ALWAYS SAID IT TO BE."

From this expression—which has been repeated in bold, black letters in practically all the advertisements since last June—we presume that we are to understand that in the past they have stated what it is.

It would have been just as easy and more satisfactory if the Phenalgin people, instead of saying: "Phenalgin is just what we have always said it to be," had said what it is, since the average physician has neither the time nor the inclination to look up their literature.

For the benefit of those who desire to know what the vendors of Phenalgin "have said it to be," we have gone over their advertising literature of the past, with the following results, which are in the form of quotations from their advertisements:

> "AN AMERICAN COAL-TAR PRODUCT—PHENALGIN—THE ONLY SYNTHETIC STIMULANT, NON-TOXIC, ANTIPYRETIC, ANALGESIC AND HYPNOTIC.
>
> "PHENALGIN IS THE **ONLY** AMMONIATED SYNTHETIC COAL-TAR PRODUCT MADE FROM CHEMICALLY PURE MATERIALS." [What have the Ammonal people to say to this?]
>
> "A SYNTHETIC COAL-TAR PRODUCT OF THE AMIDO-BENZINE SERIES, CONTAINING NASCENT AMMONIA."
>
> "THESE TWO CHEMICALS ['stimulant ammonia of coal-tar origin' and 'chemically pure phenlyacetamide'] COMBINE UNDER CERTAIN CONDITIONS SO AS TO OBTAIN A PRODUCE WHICH HE [Dr. Cyrus Edson] NAMED PHENALGIN OR AMMONIATED PHENYLACETAMIDE."

---

1. See THE JOURNAL A. M. A., June 24, 1905, p. 1997.

"PHENALGIN IS A COMPOUND OF PECULIAR CHARACTER WHICH CAN NOT BE EXTEMPORANEOUSLY MADE INTO TABLETS FROM THE POWDERED DRUG, WITHOUT SERIOUSLY CHANGING AND IMPAIRING ITS MEDICINAL QUALITIES."

We believe these quotations are sufficient to show what the Etna Chemical Company has "always said it to be." In going over the literature for several years past we find the above stated in the same, or similar, words in nearly all of it. From the above four statements may be deduced: 1. They have stated that Phenalgin is a synthetic[2] preparation; 2. they have conveyed the impression that Phenalgin is a chemical compound; 3, they have announced repeatedly that it is the "only" preparation of the kind, and 4, they have claimed that Phenalgin is non-toxic.

We believe that these four statements represent in plain English what the above quotations mean. They are all absolutely false. Phenalgin is not synthetic; it is not a chemical compound; it is not the only ammoniated phenylacetamide, or the only acetanilid mixture containing carbonate of ammonia—and it is most positively toxic.

In one place it is stated that Dr. Cyrus Edson

"EMPLOYED HIS GREAT FACILITIES FOR CHEMICAL RESEARCH AND OPPORTUNITIES FOR CHEMICAL EXPERIMENT FOR THE PURPOSE OF PRODUCING A FORMULA FOR A COMBINATION OF STIMULANT AMMONIA OF COAL-TAR ORIGIN (sic) AND CHEMICALLY PURE PHENYLACETAMIDE, ALSO A COAL-TAR PRODUCT . . . WHICH HE NAMED PHENALGIN, OR AMMONIATED PHENYLACETAMIDE."

In another place we read that Phenalgin is made

"UNDER THE IMMEDIATE PERSONAL SUPERVISION OF THE ORIGINAL INVENTOR OF AMMONIATED COAL-TAR PRODUCTS."

By comparing this last quotation—which is from a current—1905—advertisement—with the preceding one it will be noticed that we are asked to believe that Phenalgin is made "under the immediate supervision of" Dr. Cyrus Edson—and yet Dr. Cyrus Edson died Dec. 2, 1903. This is equal to Lydia Pinkham's prescribing for the suffering women of America when the dear old soul had been dead for over twenty years.

We have before us a full-page advertisement taken from a recent number of a weekly medical journal, which possibly is

---

2. Dunglison's Dictionary: "Synthetic—In chemistry the formation of a more complex body by the union of simpler bodies." Dorland's Dictionary: "Synthesis—The artificial building up of a chemic compound by the union of its elements." "Union" is not mixing.

meant as an answer to the announcement of the Council on Pharmacy and Chemistry that Phenalgin is a simple acetanilid mixture. The advertisement is divided into two parts; the first part is as follows:

"FACTS ABOUT ACETANILIDUM.

(ANCIENT HISTORY.)

"IT HAS LONG BEEN RECOGNIZED THAT ACETANILIDUM AND MOST OTHER COAL-TAR PRODUCTS ARE APT TO EXERT A DEPRESSING INFLUENCE UPON THE HEART, BUT THERE HAS NEVER BEEN ANY DOUBT ABOUT ITS GREAT VALUE AS A PAIN RELIEVER AND TEMPERATURE REDUCER. ITS THERAPEUTIC VALUE HAS, HOWEVER, BEEN PRACTICALLY NULLIFIED BY THE DANGER OF CYANOSIS AND OTHER EVILS CAUSED BY ITS WELL-KNOWN DEPRESSANT ACTION AND THE DIFFICULTY OF OBTAINING IT IN A PURE STATE. IT BEING KNOWN THAT CERTAIN DELETERIOUS SUBSTANCES ARE OFTEN TO BE FOUND IN COMMERCIAL ACETANILIDUM AND THAT MUCH OF THE INJURIOUS EFFECT ATTRIBUTED TO THIS DRUG IS ENTIRELY TRACEABLE TO THESE IMPURITIES."[3]

The above are also falsehoods. The therapeutic value of acetanilid is not "practically nullified . . . by the difficulty of obtaining it in a pure state." Neither is it true that "much of the injurious effect attributed to this drug is entirely traceable to these impurities." While deleterious substances may be found in *commercial* acetanilid, they are not found in the substance offered as medicinally pure acetanilid by reputable firms. Pure medicinal acetanilid is a cheap article, costing less than 30 cents a pound, for it is a substance that is easily and cheaply purified. It is a fact that the injurious effects are in the acetanilid itself and not in the impurities it may occasionally contain.

The second half of the advertisement in part is as follows:

"FACTS ABOUT PHENALGIN.

(MODERN SCIENCE.)

"MORE THAN A DECADE AGO THE LATE DR. CYRUS EDSON, THEN HEALTH COMMISSIONER FOR NEW YORK CITY AND NEW YORK STATE, RECOGNIZING THE VALUE OF CHEMICALLY PURE ACETANILIDUM AS A THERAPEUTIC AGENT, IF IT COULD BE DEPRIVED OF ITS DEPRESSANT QUALITY, EMPLOYED HIS GREAT FACILITIES FOR CHEMICAL RESEARCH AND OPPORTUNITIES FOR CHEMICAL EXPERIMENT, FOR THE PURPOSE OF PRODUCING A FORMULA FOR A COMBINATION OF STIMULANT

3. This sentence is not complete, but, of course, this is immaterial. Little things like an incomplete sentence do not count.

AMMONIA OF COAL-TAR ORIGIN AND CHEMICALLY PURE PHENYLACETAMIDE, ALSO A COAL-TAR PRODUCT. THESE TWO CHEMICALS COMBINE UNDER CERTAIN CONDITIONS SO AS TO OBTAIN A PRODUCE WHICH HE NAMED PHENALGIN OR AMMONIATED PHENYLACETAMIDE."

There is more of the same character. In the first place, we call attention to the fact that "Phenylacetamide" is substituted for "Acetanilidum" when it is to go into Phenalgin. To mystify is one of the "tricks of the trade." Few physicians keep up with chemical terms and, therefore, are not supposed to know that Phenylacetamide is one of the chemical names for Acetanilid.

The reference here to Dr. Cyrus Edson brings up another fact, and that is that the Etna Chemical Company tries to convey the idea that Dr. Edson was the originator of Phenalgin. We have always understood that Dr. Cyrus Edson had something to do with pushing Ammonal and, if we remember rightly, got into some trouble thereby. We do not know the exact facts, but the following letter shows that he had a leaning toward another "ammoniated phenylacetamid." The letter is dated "New York, Oct. 6, 1894," and is addressed to the "Ammonal Chemical Company."

> "During the past six or eight months I have used Ammonal extensively in my private practice. I have found it excellent in the treatment of neuralgias and for rheumatism. I have also verified your statement in two cases that were suffering from alcoholism. My experience justifies me in saying that it is the safest and best of the analgesic coal-tar derivatives.
>
> "Very truly yours,
> "CYRUS EDSON, M.D."

It may be of interest to know that the principal member of the firm of the Etna Chemical Company was at one time a member of the Ammonal Company, and it is usually understood, we believe, that Phenalgin is practically the same as Ammonal—in fact, the analyses published regarding the two preparations show this to be a fact.

We must make one more quotation:

"IT MAKES LITTLE DIFFERENCE TO A PHYSICIAN WHETHER PHENALGIN IS A MIXTURE OR A COMPOUND OR A SYNTHETIC, WITH A NAME THAT WOULD DESTROY THE ORTHOGRAPHIC BALANCE OF THE UNIVERSE, PROVIDED IT IS JUST WHAT HE HAS ALWAYS FOUND IT TO BE."

Very complimentary to the intelligence and common sense of physicians, is it not?

Suppose some fellow should get up a scheme to exploit a mixture of quinin and some cheap, harmless substance, say,

starch—equal parts of each. Suppose he gives it a fanciful name, puts it on the market at a high price, say $1.25 an ounce, and announces it as a new synthetic with wonderful therapeutic properties. Suppose that the schemer then adopts the nostrum vendor's methods of fooling physicians into using his product by getting some to give testimonials, others to furnish writeups, and then subsidizes medical journals through liberal advertising, to print both the testimonials and the write-ups. The preparation would, of course, prove to be a good thing if it were used in liberal quantities where quinin would ordinarily be used, and some patients using it would get well even if quinin were not indicated. Then with the psychologic effect of the testimonials, the write-ups, and good, strong claims rightly pushed, unthinking physicians would do the rest. And then, after a while, when the schemer had gotten to the point where, each year, he was making a fortune out of his preparation, suppose some "self-appointed chemists" should examine into the preparation and discover that it was nothing but quinin and starch, and so announce to the doctors of the country; what would the doctors say? That it makes little difference "provided it is just what he has always found it to be!"

This analogy is not far-fetched, for it is practically what has been done with Phenalgin. One difference is that since quinin costs as much per ounce as acetanilid does per pound, the profits on the acetanilid mixture would be sixteen times greater than that of our imaginary preparation. Another difference is that acetanilid is really a dangerous drug, unless used with care, both in its immediate and in its remote effects; quinin is far less so.

"Little difference" indeed, whether we are being buncoed or not! Evidently!

In conclusion, we charge the Etna Chemical Company with intentionally misleading and deceiving the members of the medical profession, in that the said company has in its literature and its advertisements conveyed the impression (whether directly stated or not): First, that its preparation, Phenalgin, is a synthetic compound; second, that Phenalgin requires special skill in its preparation; third, that Phenalgin has therapeutic values which it does not possess; and, fourth, that Phenalgin is non-toxic.

We also charge that on account of these and other misrepresentations, this company has inveigled physicians into prescribing and using a simple mechanical mixture of common well-known cheap drugs—for which an extravagantly high price is charged—under the supposition that this combination of cheap

drugs is a chemical compound of special and peculiar merit as a therapeutic agent, and, therefore, worthy of their confidence.

Our object in again giving space to this preparation—and practically all we have said applies to the other acetanilid mixtures that are exploited under fictitious names or as chemical compounds (such as ammonol, antikamnia and salacetin or sal-codeia—Bell)—is to impress on physicians, by a typical example, the shamefulness of the deceptions practiced on them by nostrum manufacturers to the great injury of the public and of the medical profession.

A PHARMACEUTICAL SECRET WHICH SHOULD NOT BE LOST.

Dr. Gregory Costigan, New York City, writes, under date of January 21, as follows:

"I have been carefully reading and enthusiastically approving your articles on the nostrum evil, and have been impressed more than usual on the existence of quack advertising in medical journals as set forth in last paragraph and quotation on page 206, bottom of first column, of your issue of Jan. 20, 1906.

"In *Merck's Archives*, page II, we are told in an advertisement on 'Phenalgin' that it 'is a compound of peculiar character which can not be extemporaneously made from powdered drug' and 'our process of manufacturing tablets is coincident with the manufacture of Phenalgin and is the result of a long series of careful experiments by which we are able to produce tablets of Phenalgin in a friable condition without losing any of its *volatile* constituents or undergoing chemical changes from heat or moisture'!! Inasmuch as Phenalgin tablets are not covered with a waterproof coating I think this is a remarkable statement to make, and the manufacturing of a drug coincident with the manufacture of a tablet must be a very remarkable performance, especially because it 'retains the full therapeutic value of the drug unimpaired' while the advertisement asserts that no other manufacturer is cognizant of this wonderful method. This ad. is for the perusal of physicians only. The Etna Chemical Company owes it to the medical and pharmaceutical world not to let this secret die with the company's dissolution. It owes it as a duty to the coming generations of science immediately to jot down the full data of this wonderful performance, to put it away in an age-proof safe and not allow it to be lost to humanity as were a great many other arts that were well known to the ancients. Let them keep it secret now and profit by it, but do not let it be lost to posterity."

PHENO-BROMATE.

CHARLES J. FOOTE, M.D.

NEW HAVEN, CONN.

(From The Journal A. M. A., July 14, 1906, 125.)

The New Haven Medical Association is interested in the crusade against "patent medicines," and is anxious to take a hand in the exposure of the fraudulent claims of the many secret remedies placed before the physician with such alluring testimonials. Through its committee on "patent medicines" it has been investigating pheno-bromate. Inasmuch as the committee has never seen an analysis of pheno-bromate published, it sends one made by its chemist to THE JOURNAL of the American Medical Asociation:

YALE MEDICAL SCHOOL,
NEW HAVEN, CONN., April 10, 1906.

Committee on Patent Medicines, New Haven Medical Association, New Haven, Conn.:

Gentlemen:—As requested by you, I have made an examination of the sample of pheno-bromate submitted to me for that purpose, and report as follows:

The package was marked "Sample package, Pheno-Bromate. The Pheno-Bromate Company, New York, U. S. A."

The box contained a number of tablets and a package of powders in papers marked, "Physicians' 10 grain powders, pheno-bromate."

The substance in the papers was a white crystalline powder not homogeneous. It was completely soluble in hot water. The hot water solution on cooling yielded a mass of thin crystalline plates. This material was found to melt at 113.5 C. It gave no color with ferric chlorid and a positive isonitril test. The portion insoluble in ether amounted to 49.8 per cent. of the powder and consisted of potassium bromid. Quantitative determinations of potassium and bromin in the original solution confirmed this result.

In my opinion, the powder consists of approximately equal quantities of acetanilid and potassium bromid.

Qualitative tests of the tablets indicated that they had the same composition except for a small quantity of some incipient not entirely soluble in water. Your truly,

HERBERT E. SMITH,
Chemist New Haven Medical Association.

The Pheno-Bromate Chemical Company issues a circular, from which I quote:

"Pheno-bromate is a synthetic combination of derivations of the phenetidin and bromide groups, and not, as is the case with many analgesics and antipyretics, a mixture of various coal tar derivatives."

"It is entirely free from depressing effects upon the heart and circulation; never produces any objectionable by or after effects, and has attained extensive employment as the safest and most reliable agent for prompt and complete relief of pain and reduction of abnormal temperature."

"The present popularity of Pheno-Bromate with the leading scientific physicians is, in a great measure, due to the fact that it possesses the advantages of absolute freedom from depressing effects upon the heart and circulation, which so often follow the employment of narcotics and coal tar products, superlative potency and uniform activity. Under the influence of pheno-bromate the heart acts regularly and systematically and the individual beats possess normal characteristics. Cyanosis, syncope, or collapse never follow its use."

"The remedy is by far the best and safest of all sedatives, and its routine and judicious employment will obviate the necessity of resorting to morphine and the hitherto unsafe and depressing coal tar products."

The doses recommended are as follows: As an antipyretic 4 to 10 grains given at intervals of one to four hours; as an analgesic, the dose is from 10 to 25 grains, repeated in smaller doses two or three times during as many hours; as an antispasmodic, from 20 to 25 grains; as an hypnotic, 20 grains; as an antineuralgic, 10 to 25 grains.

The dose recommended in most cases is about 20 grains, which is equivalent to 10 grains of acetanilid and 10 grains of potassium bromid. After using such a dose of acetanilid the patient is apparently free from the depressing effects on the heart and circulation which so often follow the employment of narcotics and coal-tar products.

In the back of the circular there are testimonials purporting to be from physicians. Let me quote a few:

"Pheno-bromate is all and more than represented. In forty-three years' practice I can truthfully state that nothing I have used compares favorably with it."

DR. E. G. B.

"In fifteen grain doses pheno-bromate promptly relieves the pain of locomotor ataxia without unpleasant effect on the heart's action." DR. S. D. H.

"I have had very happy results from the use of pheno-bromate in typhoid fever, where I have been able to control the temperature much better than by the cold baths. I have found it a most excellent remedy in pneumonia, neuralgia, rheumatism and la grippe, and in no case has it depressed the heart's action in the least."

DR. F. O. Y.

Pheno-bromate is furnished in ounce cartons at the price of $1 an ounce. Potassium bromid is now selling at 35 cents a pound, and acetanilid at 30 cents a pound. A mixture practically identical with pheno-bromate can be put up at a cost of 3 cents an ounce.

I trust the above analysis and quotations will throw sufficient light on the value of pheno-bromate as a heart tonic, and on the extreme philanthropy of the manufacturers in furnishing to the public such a valuable remedy at such a marvelously low price!

Its Composition Before and After the Food and Drugs Act.

(From The Journal A. M. A., April 18, 1908.)

The exigencies of the Food and Drugs Act have forced one of the lesser lights in the nostrum firmament, Antikamniaward. Pheno-Bromate was advertised *before* the act went into effect as a "synthetic combination of derivations of the phenetidin and bromid groups." Analysis[1] indicated that it was, in fact, merely a mixture of about equal parts of acetanilid and potassium bromid! The label on this preparation *since* the act became operative states that it is "a perfect combination of a phenol and a bromin derivative containing 282 grains of acetphenetidin, U. S. P., per ounce." What a boon it was to mendacious manufacturers that the patent rights on phenacetin expired before the Food and Drugs Act went into effect! How otherwise would the acetanilid-scared public have been cajoled into buying preparations containing antipyretics?

In view of the above facts it is not surprising that a correspondent writes to the *Druggists Circular* plaintively inquiring, "What is a 'bromin derivative'?" and suggesting that the doctors who prescribe such a "derivative" (Pheno-Bromate) should be told "what a sweet bunch of suckers they are." The inelegance of diction exhibited by this writer is equaled only by the pertinence of his suggestion.

PURGEN.

Phenolphthalein Now Being Exploited in This Country.

(From The Journal A. M. A., Sept. 14, 1907, 954.)

The physicians of the United States are receiving a neat package containing samples of a German proprietary—Purgen. The container is an ingenious one and, besides the tablets, includes a circular in English, although mailed in Europe, describing the remarkable virtues of this "new synthetic

1. THE JOURNAL, July 14, 1906, 125.

aperient." It has been considered strange that this proprietary, which has been advertised so thoroughly in Europe, Australia, etc., should not have made its appearance in this country. Now it is here, and it is well that physicians should know what Purgen is and not be mystified and misled by the literature that they may receive regarding the preparation.

The following appeared in THE JOURNAL, Jan. 5, 1907, page 64, and is reprinted now as being especially timely:

> The report of a case of poisoning by purgen (phenolphthalein) is the occasion for some pertinent observations by Dr. G. Brasch as to the proper introduction of such remedies to the medical profession (*Zeitschrift für Medizinalbeamte*, Abst. in *Apotheker-Zeitung*, No. 59, 1906). He agrees with Best that all such remedies should first receive a thorough trial in an institution subject to state supervision, before they are advertised to the medical profession, so that their harmlessness in appropriate doses may be ascertained by a method free from liability to error. The manner in which the manufacturers introduced purgen to the profession and to the laity is to be condemned, and probably led to the symptoms of poisoning exhibited in the case of Dr. Best and tends to discredit a remedy which is harmless and efficient if used in proper doses. The manufacturer of such a preparation is inclined, for obvious reasons, to put the dose of his preparation much too high. The most important point, however, is the objectionable character of the names given to such articles. The organic compound phenolphthalein has been known for a long time and has been widely used as an indicator. Accidentally it was discovered that phenolphthalein possessed laxative properties and thereon it was proposed (1901) as a medicine under the name "purgen." It is sold in tablets containing 0.05, 0.1 and 0.5 grain phenolphthalein mixed with sugar and flavored with vanilla. The author says: "But it is very desirable —and I regard this as the most important part of my communication—that phenolphthalein should be received into the materia medica under its own name. The addition of vanilla and sugar and the designation as 'purgen' by the manufacturers is to the highest degree superfluous and the arbitrary dosage in three strengths with the ridiculous designations, 'baby,' 'for adults,' 'for patients confined to bed,' are merely calculated to prejudice the physician who is accustomed to individualize in his prescriptions, against a remedy which is in itself an excellent one."

As explanatory to the last sentence, it should be stated that in Europe purgen is put up in three dosage forms, "infant purgen for children," containing ¾ of a grain; "adult purgen

for chronic constipation," containing 1½ grains, and "strong purgen for invalids," containing 7½ grains. The form in which it is being sampled in this country is in the medium dose, 1½ grains.

Physicians should remember that the promoters of purgen are simply introducing a chemical well known to laboratory workers for the last twenty years, which has been recognized as an aperient for at least seven years, and which can be purchased for 40 cents an ounce, whereas an ounce of phenolphthalein in the form of purgen will cost $3.20 wholesale. The enthusiastic praise of the remedy, found in the advertising circulars, should be subjected to critical judgment on account of its source and motives.

It is undoubtedly true, however, as we have previously stated, that phenolphthalein is worthy of a trial. In the *British Medical Journal*, Oct. 18, 1902, F. W. Tunnicliffe speaks of the virtues of phenolphthalein, and the conclusions reached by him were that it is a useful aperient, without irritating action on the kidneys, and is especially valuable in jaundice, its depressing action on the circulation being less than sulphate of magnesia.

Phenophthalein is not in the Pharmacopeia, but has been included in "New and Nonofficial Remedies" by the Council on Pharmacy and Chemistry. From this we quote:

Actions and Uses.—Phenolphthalein acts as a purgative, but appears to possess no further physiologic action. A case of poisoning from taking 1 gm. (15 grains) is reported.

Dosage.—For adults the average dose is 0.1 to 0.2 gm. (1.5 to 3 grains) given as powder, in cachets, capsules or pills. It may be given with safety in doses of 0.5 gm. (8 grains), and these doses seem to be necessary to secure its effects in bedridden patients or in obstinate cases.

We have gone into this matter again so that our readers may have some knowledge of this remedy, and we hope that if they conclude to try it they will use the chemical itself and under its own name.

PYRENOL.

Another Mechanical Mixture Advertised as a Chemical Compound.

(From The Journal A. M. A., June 13, 1908.)

We called attention recently[1] to the evolutionary process which arhovin, a preparation put out by a German firm, was undergoing in its change from the atomic to the molecular.

1. THE JOURNAL, May 9, 1908, 1541; page 137 this edition.

Still another product of the same firm—pyrenol—has fallen from its high estate as a chemical compound (as exploited by its manufacturers) to a mere mechanical mixture (as determined by disinterested analysts). Pyrenol is described by its makers as a synthetic combination containing the radicals of thymol, benzoic acid and salicylic acid united with sodium. To represent this product there was invented a graphic formula of fearful and wonderful design, which the manufacturer, when cornered, admitted was not only unscientific but impossible. The excuse given was that it—the formula—would assist the physician to get a clear idea of the composition of this unique synthetic and that it was not intended for chemists and pharmacists!

When analyzed by Zernik, of the Pharmaceutical Institute of the University of Berlin, pyrenol was found to be a mere mixture of sodium benzoate and sodium salicylate with small amounts of free benzoic acid (0.84 per cent.) and thymol (0.2 per cent.). This analysis was verified by Professor Thoms, director of the Pharmaceutical Institute, and also independently by Gadamer and Gaebel of Breslau. The manufacturer when confronted with these facts claimed that as the preparation was produced by melting the ingredients together, and not merely mixing them mechanically, that a synthetic substance was formed. That a new substance may in some cases be formed by fusing together two or more ingredients is unquestionably true, but the point to be considered is not what *may* happen but what *does* happen. In this particular case the result appears to be a simple mixture.

The firm that makes pyrenol, the *Chemisches Institut*, Dr. A. Horowitz, Berlin, also makes iodofan, the composition of which was recently[2] shown to differ vastly from the advertised claims. It also puts out visvit, a nostrum which has been exploited by means of clinical histories rehashed from write-ups of other preparations.[3] All of which goes to show that pharmaceutical literary fiction is not confined to the United States, but that German enterprise in this, as in other lines, is encroaching on a highly specialized field. Simple patriotism, however, would seem to dictate that if we must be humbugged let it at least be by home talent.

---

2. THE JOURNAL, March 7, 1908, 784; and p. 185 this edition.
3. THE JOURNAL, May 2, 1908, 1440; and p 246 this edition.

PYRENOL TABLETS AND EGLATOL CAPSULES.

More Unreliable Horowitz Products.

(From The Journal A. M. A., Aug. 29, 1908.)

We have had occasion in commenting on the unreliability of certain manufacturers regarding their so-called synthetic products to refer to the preparations of the *Chemisches Institut* of Dr. A. Horowitz of Berlin. It has been shown[1] that several of the products of this concern do not possess the composition claimed for them. It is not always possible to produce a synthetic compound by putting the necessary materials together, and the failure of such a combination to possess uniform properties does not always justify an accusation of dishonesty or incompetency. When a pharmaceutical manufacturer, however, puts out tablets that vary widely in their content of the active ingredient, either gross carelessness or intentional fraud must be assumed. G. Frerichs of Bonn has recently investigated the tablets of Pyrenol put out by Horowitz to determine the amount of extraneous material found in them.[2]

The tablets are advertised to contain 0.5 gm. (7.5 grains) of Pyrenol. While the tablets contained much matter which was insoluble and therefore not Pyrenol, yet the total weight of the tablets proved to be on the average but little more than 0.5 gm. (7.5 grains), in some cases even less. The percentage of Pyrenol in these tablets varied from 45 to 90 per cent., and on the average it would appear that in giving the Pyrenol tablets the physician would administer only about two-thirds of the amount of Pyrenol which he would naturally believe that he was giving.

Frerichs has since investigated capsules of Eglatol,[3] a mixture of chloral hydrate, antipyrin, caffein, urethane and menthol, put up by Horowitz and found similar irregularities in weight, the empty capsule sometimes weighing more than the contents. Frerichs sarcastically remarks that the physician may content himself with the feeling that his patient is getting in each capsule about the same amount of gelatin and may rest assured that he will not get too large a dose of the medicine. Frerichs has also examined Arhovin capsules,[4] put up by Horowitz, and found that the amount of Arhovin which they contained varied widely and usually was

1. Iodofan, THE JOURNAL A. M. A., March 7, 1908, 784; Arhovin, ibid., May 9, 1908, 1541.
2. Apotheker Zeitung, July 18, 1908, p. 521.
3. Apotheker Zeitung, July 22, 1908, p. 529.
4. Apotheker Zeitung, July 25, 1908, p. 538.

much less than the amount which they were claimed to contain.

These products, except Eglatol, are on the American market, so that these investigations are of practical importance to the physicians of the United States. Such investigations as these of Frerichs serve to emphasize again the need of constant supervision of manufactured pharmaceutical products.

SALACETIN.

(From The Journal A. M. A., July 1, 1905, 55.)

Some time ago we wrote to Messrs. Bell & Co., calling their attention to the fact that we had made an examination[1] of their product, salacetin, and that as a result of such examination it was found to be a mixture, which did not coincide exactly with their description of it. They replied: "Our description of salacetin is correct and we have nothing more to impart except that any one publishing any different formula from that given in our circulars will be held responsible by us."

The description they give is as follows: "Prepared by the interaction, with heat, of salicylic acid, glacial acetic acid, and purified phenylamine."

This sounds very scientific, but when we remember that acetanilid is a result of the action of glacial acetic acid on phenylamine—anilin—their description is cute, to say the least. Of course, there is "interaction with heat" when salicylic acid is combining with bicarbonate of sodium to form salicylate of sodium. Further, there is, no doubt, some "interaction with heat" when the substances are rubbed together in mixing them and when they are going through the mill to form tablets, not to mention the heated imagination of the promoters of this "synthetic."

The following taken from the advertising literature furnished by the manufacturers and distributed by them, is quoted to show the claims made for this preparation:

> "Salacetin is free from Toluodine and produces no harmful cyanosis." In the treatment of Acute Bronchitis, Grippe, Influenza, Tonsillitis, Lithemic Headaches, Rheumatism and Neuralgias, it relieves pain, reduces inflammation and abnormal temperature, and eliminates uric acid [everything eliminates uric acid nowadays, it ought to be all "eliminated" soon] more quickly and thoroughly than the salicylates, and without causing depression or stomachic or renal irritation.

---

1. THE JOURNAL A. M. A., June 3, 1905, reproduced on p. 4 of this pamphlet.

"Have personally interviewed thousands of physicians, including every prominent one in the East, and can honestly state that we have never known of anything at once so efficient and so unobjectionable in the removal of rheumatic and neuralgic pain and other symptoms of the uric-acid accumulation." "La Grippe and Acute Bronchitis it relieves pain and coughing, reduces inflammation and temperature, makes the patient comfortable, and checks the progress of the disease. In Tonsillitis its action is specific." "In Acid Cystitis, it neutralizes acidity, reduces inflammation and removes irritation." "In Dysmenorrhea it relieves pain and congestion with no hallucinations, constipation or danger of a drug habit."

"In Dysmenorrhea and Ovarian Neuralgias try Sal-Codeia—Bell. It will relieve the pain as well as morphia. It will not check any secretions, induce any habit, cause any depression or inconvenience of any kind."

This is all the space we can give to reading notices this week.

Of course, it is well understood that acetanilid is a valuable remedy in many instances, if used with caution and when indicated. It certainly has some therapeutic value. There is no doubt that it relieves pain of various kinds. It is to be presumed that combining salicylate of sodium with it will have certain beneficial effects in certain rheumatic conditions, on the supposition that salicylate of sodium and acetanilid are both used with more or less success in certain of these conditions. Also, the combining of bicarbonate of sodium, carbonate of ammonia, caffeine, citric acid, one or several of these, may result in a fairly good combination, but these combinations can be found in the list of preparations of all our large manufacturing pharmaceutical houses, which supply them at one-tenth of the cost of these secret remedies. The physician in using these preparations put out by reputable recognized manufacturing pharmaceutical houses, not only is prescribing preparations that are non-secret, but is using remedies that cost one-tenth as much as the secret preparations, which are exploited under fanciful names and pushed by ridiculous claims.

SAL-CODEIA—BELL.

(From The Journal A. M. A., Nov. 4, 1905.)

According to the advertisements "Salacetin"

"is a combination with heat of salicylic and glacial acetic acids with phenylamine, the irritating, depressing and blood corpuscle destroying elements removed."

According to the Committee on Chemistry of the Council on Pharmacy and Chemistry of the American Medical Association, whose report was published in THE JOURNAL of the American Medical Association June 3, 1905, p. 1791, "Salacetin" is a mixture of acetanilid, salicylate of sodium and bicarbonate of sodium. Sal-Codeia (Salacetin-Codein), therefore, would be the same as the above with codein added. Of course, acetanilid and codein will relieve pain (it could not be otherwise) and consequently make a very good combination in certain conditions, if not used too often and if used with care. While the continued use of codein is not likely to produce a drug habit, it, as well as acetanilid, does so sometimes, and it must be remembered that codein is a motor paralysant, and is not the best combination to be used with acetanilid. For those who wish to give a combination of acetanilid, salicylate of sodium and codein, the following prescription is suggested:

R.	Acetanilid	3i	4
	Sodii bicarbonatis	3ss	2
	Sodii salicylatis	3ss	2
	Codein sulph.	gr. vi	4

M. et div. chart No. xxiv.

This will make five-grain powders which may be put in papers, capsules, cachets or tablets. Each will contain 2½ grains (0.15) of acetanilid and 1¼ grains (0.075) each of sodium salicylate and sodium bicarbonate, with ¼ grain (0.015) of codein.

The doses of acetanilid and of codein approximate the average adult doses, but the sodium salicylate, to have any appreciable effect, must be increased, for 1¼ grains of salicylate of sodium in a dose is insignificantly small. Sodium salicylate with acetanilid makes a fairly good combination in certain rheumatic troubles, but it is not indicated by any means as a cure-all, as one would judge from the literature sent out by the Sal-Codeia—Bell people.

SOOTHING SYRUPS—FATALITIES AND POISONINGS.

Kopp's Baby's Friend.

(From The Journal A. M. A., Various Dates.)

In response to a request for information from a physician who had a case of poisoning from the preparation, we had Kopp's Baby's Friend analyzed. According to this analysis, published in THE JOURNAL, Nov. 25, 1905, p. 1678, Kopp's Baby's Friend contains in 100 c.c. 0.0719 gm. morphin sulphate; approximately 1/3 of a grain in one fluid ounce.

The following deaths and poisonings have been reported from this preparation:

C. F. Jones, coroner, Baltimore, reported the death of a child, aged 3 months.—THE JOURNAL, Jan. 6, 1906, p. 55.

D. R. E. Eskildon, Omaha, reports two cases of poisoning occurring in infants.—THE JOURNAL, Nov. 25, 1905, p. 1678, and Feb. 10, 1906, p. 447.

R. Dodd, coroner of Oneida county (N. Y.), reported the deaths of twin children, aged 1 month, in Utica, N. Y.—THE JOURNAL, March 3, 1906, p. 666.

Dr. J. J. Deshler, Glidden, Iowa, reported the case of a child, aged 14 months, who suffered from chronic opium poisoning from the habitual administration of Kopp's Baby's Friend.—THE JOURNAL, May 19, 1906, p. 1541.

Dr. L. E. Siegelstein, Cleveland, coroner of Cuyahoga County, reports the death of one infant, aged 2 months, and of another aged 5 weeks.—THE JOURNAL, July 14, 1906, p. 127.

Dr. A. J. Braden, Duluth, Minn., reports the death of a child, aged 6 months.—THE JOURNAL, Oct. 27, 1906, p. 1393.

Dr. Jesse Cooper, Newcastle, Pa., reports the deaths of twin children, aged 6 weeks.—THE JOURNAL, Feb. 9, 1907, p. 535.

Dr. Siegelstein, of Cleveland, in addition to taking testimony and investigating the cases, did some private experimental work with "Kopp's Baby's Friend." First, he gave a 6-days-old puppy 30 drops of the preparation. The pup never awakened from the deep sleep that overcame him at once. He gave a 2-weeks-old kitten 20 drops. She promptly went to sleep and slept four hours. The next day he gave her 30 drops, which put her to sleep forever. He also tried the preparation on two kittens 6 weeks old. Each slept for from four to eight hours after doses of from 15 to 20 drops.—THE JOURNAL, July 14, 1906, p. 127.

Bull's Cough Syrup.

Dr. J. W. Shafer, Morocco, Ind., reported the death of a child, aged 23 months, who had drunk about an ounce of "Dr. Bull's Cough Syrup." A bottle of this preparation was analyzed, and, according to the analysis, Bull's Cough Syrup contains in 100 c.c. 0.0534 gm. of morphin sulphate; approximately ¼ of a grain in one fluid ounce.

Mrs. Winslow's Soothing Syrup.

Dr. G. M. Cummins, Hamilton, Ohio, reported a case of poisoning from Mrs. Winslow's Soothing Syrup in a child, aged 3½ months.—THE JOURNAL, March 3, 1906, p. 666.

Dr. J. E. Campbell, South St. Paul, Minn., reported the death of a child, aged 10 months, from Mrs. Winslow's Soothing Syrup.—THE JOURNAL, Feb. 9, 1907, p. 535.

Dr. J. M. Edwards, Commissioner of Health, Mankato, Minn., reported the death of a child, aged 18 months, from an overdose of Mrs. Winslow's Soothing Syrup.—THE JOURNAL, March 30, 1907, p. 1123.

Rex Cough Syrup.

Dr. T. C. Buxton, Decatur, Ill., reported the death of a child from Rex Cough Syrup.—THE JOURNAL, Feb. 9, 1907, p. 535.

Monell's Teething Syrup.

Dr. J. E. Dorn, Brooklyn, N. Y., reported the death of an infant from the effects of Monell's teething syrup.—THE JOURNAL, Feb. 9, 1907, p. 535.

TARTARLITHINE.

(Abstracted from The Journal A. M. A., April 13, 1907, p. 1284.)

Tartarlithine was examined by two chemists whose reports indicate that it is an effervescing preparation composed approximately of 20 per cent. of carbonate of lithium and about 80 per cent. of tartaric acid. Thus it is simply another of the hundreds of lithia preparations on the market offered for the cure of rheumatism. This in spite of the fact that scientific investigation and clinical experience have demonstrated that lithia is of very little use in the treatment of that disease. While the advertisement carries the idea that tartarlithine is a product of the Tartarlithine Company, and that McKesson and Robbins are simply selling agents, we are informed that the business is owned by McKesson and Robbins, who under this style manufacture a remedy for rheumatism.

TUBERCULOIDS.

(Abstracted from The Journal A. M. A., Feb. 29, 1908 p. 704.)

The following card is sent out to the public by the Columbus Pharmacal Company, Columbus, Ohio, and a copy was sent to THE JOURNAL office by Dr. N. S. Davis:

PHTHISIS PULMONALIS CURABLE.

By the Germicidal, Antiseptic (non-irritating), Alterative, Reconstructive and Restorative Properties of TUBERCULOIDS TREATMENT for TUBERCULOSIS. The medicinal factor being TUBERCULOIDS TABLETS, a chemical production proven efficacious by bacteriological

tests, substantiated by practical use by physicians under all kinds of climatic and systemic conditions. Full size package ($1.50 size, 200 tablets) furnished free to accredited practicing physicians on return of the attached card. Ample information furnished by personal letter for intelligent administration. Originated and manufactured only by COLUMBUS PHARMACAL COMPANY, COLUMBUS, OHIO. Serial No. 3219, Guaranteed under the Food and Drugs Act, June 30, 1906.

Some of the literature and a sample of the preparation were submitted to the chemical laboratory of the Association and the chemists were asked for an opinion and a report. The chemists declared that the statements made were typical of those made for the average "patent medicine." While pretending to give exact information regarding the composition of the remedy, the literature contains only mystifying phrases. The formulas given are criticised, and it is stated that they are evidently intended to mislead. Apparently, the tablets contain bismuth, possibly a nitrate of bismuth, a compound of guaiacol and a salt of cinnamic acid. There is no class of patients whom the nostrum maker can influence more easily than consumptives; they are always hopeful and ever ready to praise any remedy they happen to use. This is undoubtedly the reason why the "consumption cure" promoters succeed in getting so many testimonials. Attention is directed to the fact that the statement "guaranteed under the Food and Drugs Act" does not carry with it any guarantee of the purity of the preparation or of its efficacy in the class of cases for the cure of which it is advertised.

TUBERCULOZYNE.

(From The Journal A. M. A., Sept. 26, 1908.)

Our London correspondent refers[1] to a coroner's inquest recently held in England on a boy who died while taking the nostrum Tuberculozyne. This cruel fake is a product of this country—for which we should blush—being put on the market by "Dr." Derk P. Yonkerman of Kalamazoo, Mich. It was exposed by Dr. Kebler in THE JOURNAL[2] about two years ago. Later Samuel Hopkins Adams in *Collier's*[3] paid his respects to it and its exploiter, and last year the *Sydney* (N. S. W.) *Bulletin*[4] had the following to say regarding the nostrum:

---

1. THE JOURNAL A. M. A., Sept. 26, 1908.
2. Nov. 10, 1906, p. 1549.
3. The Great American Fraud, 4th Ed., p. 73.
4. Report of the Royal Commission, Australia, i, 1907.

"The blastiferous 'Tuberculozyne' seems to be a mixture of many things and whether a patient strikes one bottle or the other there appears every reason to consider that he is a swindled consumptive. Possibly the hash is harmless—the *Bulletin* does not know—but a harmless mixture may amount to the cold-blooded murder of a consumptive just as much as a keg of prussic acid. A patient who is capable of being cured under proper treatment may waste his time over the bottles of rubbish manufactured by shameless and grasping quacks till he becomes incurable, and in that case the quack has killed him just as much as if he beheaded him with an axe. In this case the bottled slush was manufactured by a Yankee person or company and imported here in drums (carboys)."

An analysis of the nostrum and its method of exploitation was published in the *British Medical Journal*[5] recently. This analysis compared with those published in THE JOURNAL two years ago, those made in Sydney, N. S. W., and others made by the public analyst for the coroner in the case described, show that like most remedies of that ilk—from antikamnia to peruna—one is never sure how long the "formula" will remain stationary.

It is to be hoped that more coroners on both sides of the Atlantic will force inquiries in cases of death occurring in patients who are taking these "sure cures." The awakening on the part of the British public to the worthlessness and danger of nostrums of the type of Tuberculozyne will indirectly help to abolish the Great American Fraud. It has become increasingly common since the American public has been aroused to the viciousness of "patent medicines" for the promoters of such to seek new victims in other English-speaking nations. Object lessons such as coroners' inquests will inevitably tend to eliminate those human scavengers who wring money from the incurably sick under the guise of "cure."

VAPO-CRESOLENE.

Results of Examination in the Association's Laboratory.

(From The Journal A. M. A., April 4, 1908, 1135.)

HUMBOLDT, TENN., Feb. 10, 1908.

To the Editor:—What can you tell me about Vapo-Cresolene? G. W. PENN.

ANSWER:—Vapo-Cresolene has been examined in the American Medical Association's laboratory and the chemists' report follows:

According to the statements on the trade package, Vapo-Cresolene "is a product of coal-tar possessing far greater power

5. Aug. 22, 1905, p. 505.

than carbolic acid in destroying germs of disease." It is recommended as a remedy for a number of diseases, including croup, catarrh and diphtheria. According to the manufacturers, it should be used only in "the Cresolene vaporizer," which makes it "unequaled for the disinfection of sick rooms" and the "safest and simplest method of destroying infection and purifying the air." From the examination[1] we conclude that Vapo-Cresolene is essentially cresol and corresponds in every respect to cresol U. S. P. (Physician's Manual, page 36).

This report indicates that Vapo-Cresolene is a member of that class of proprietaries in which an ordinary product is endowed, by the manufacturer, with extraordinary virtues. The type is so common and has been referred to so frequently that but for the dangers attendant on the inhalation of any of the phenols, this particular product need not have been mentioned.

Air Disinfection—The Question of Pure Air Versus Purified Air.

The disinfection of rooms in which an infectious disease has occurred is a very important matter. The spread of the disease and the lives of other people are involved and the greatest care should be exercised to see that the agents used for this purpose are efficient. To lull the patient and the family into a sense of security by the recommendation of an inefficient agent for this purpose, either during the illness or after its termination, is very reprehensible. It is needless to repeat the well-known fact that efficient disinfection can not be carried out in a room occupied by the patient. Agents which kill germs in a certain degree of concentration fail to do so when they are diluted below that concentration, and while the organisms may be temporarily inhibited from growth they will again become active and virulent under favorable circumstances. This thought is suggested by the report, given above, of an investigation of the much advertised proprietary Vapo-Cresolene. In this particular instance, considering the injurious effect on the kidneys of cresol and other members of the phenol group, patients, especially children, suffering

1. ANALYSIS OF VAPO-CRESOLENE: One part of Vapo-Cresolene was found to be soluble in about 60 parts of water. Mixed with an equal volume of glycerin a clear solution is obtained; from this, by addition of an equal volume of water, almost the entire original volume of Vapo-Cresolene separates out. Submitted to distillation, a few drops distil over at 90 C., then the boiling point of the liquid rapidly rises to 90 C., and almost the entire liquid distils over between 90 to 100 C. Its specific gravity at 25 C. is 1.0407. From this it appears that Vapo-Cresolene corresponds in every way to the description of cresol as found in the United States Pharmacopeia.

from infectious diseases, should not be compelled to breathe the vapor of such a drug unless the advantage to be derived is very great.

Applying the principle generally, it is certainly more rational to get rid of infected air by turning it out of doors than to attempt to kill the germs in it while the patient is still breathing it. It is difficult to conceive any reason for using chemical agents to purify the atmosphere of a room when an unlimited quantity of pure air is to be had at no greater expenditure of effort than the mere opening of a window.

VIAVI.

A California Exposure of a California Nostrum and Its Graft.

(From The Journal A. M. A., April 27, 1907, 1445, and June 15, 1907, 2041.)

Yet one more of what Samuel Hopkins Adams in "The Great American Fraud" calls the "fundamental fakes" has been exposed. The *California State Journal of Medicine* devotes six pages in its April issue to showing up "Viavi"; and it is well done. It appears that two astute and, since they have made their millions, highly respected, men on the Pacific Coast conceived the idea some years ago of instituting a "treatment" for the ills peculiar to women. This "treatment" practically consisted—and, in great part, still consists—of prescribing vaginal douches. But, of course, as our contemporary says, "no large paying business could be built up by simply selling a little good advice and a trifle of common sense. There must be something definite to take, some wonderful secret and very costly remedy that will work the result, to secure which the douche is but the merest preliminary. Hence the 'capsules' and the 'cerate' and the 'liquid' and the 'royal,' and the rest of the wonderful remedies which, collectively, leave little uncured or uncurable by Viavi."

So Viavi is bought and the douche is taken. "The immediate increase of personal comfort, and many times the quick relief from some annoying minor ailment, which follows this exercise of cleanliness and common sense, might so hypnotize the average woman who accepts the Viavi preachments and takes the Viavi 'treatment,' that she would be ready to believe almost anything the promoters care to tell her."

Inquiry was made as to whether the Viavi remedies contained morphin, opium or any habit-forming drug. Nothing of this sort was found, in fact, as our contemporary says: "It was unnecessary to put an expensive article like morphin, and

one liable to bring about trouble in the future, into their 'remedies' when they do not need to."

Then the question was put: Are the Viavi remedies used for the prevention of conception? This query was answered by a most emphatic denial. The manufacturers were horrified at the thought of their remedy being put to such repulsive and frightful misuse. The questioners wondered in the face of such evident righteousness on the part of the makers of Viavi how they could have been led to think of such a thing. The thought may have been suggested by a paragraph in a booklet put out by these people, called "Viavi Hygiene." Here we find that " . . . the remarkable effectiveness of the Viavi system of treatment . . . places it in the power of healthy wives to LIMIT THE NUMBER of their offspring for proper reasons, and women who are not fit for maternity to AVOID it by natural means." [The small capitals are inserted for emphasis by the California journal.]

An inability to correctly interpret what appears to be simple English is the only excuse that the enquirers have to offer for their unjust suspicions.

Naturally after two such rebuffs the question arose: What is Viavi? In the language of its makers—who ought to know—it "is a purely vegetable compound—more a food than a medicine, and is prepared in a predigested manner, so that it can be easily absorbed by the tissues of the body with which it comes in contact." But on the other hand analytical chemists reported: "So far as we are able to determine, they contain nothing but the extract of hydrastis and cocoa butter."

But why quarrel about what this wonderful remedy *is* when we know what it will *do?* Gynecology, after the universal adoption of the Viavi treatment, will become a lost art and the gynecologist, who is referred to in Viavi literature as a "body carpenter," will have to cease his sacrilegious "carpentry," for "a very large proportion of women's diseases were really incurable until the Viavi system of treatment was introduced."

But it is on the subject of etiology, pathology and treatment of tumors that Viavi literature really distinguishes itself. Could the cancer commission be but persuaded to read this enlightening treatise it would adjourn *sine die.* Like all great discoveries, this one is remarkable for its simpleness. With the ingenuousness characteristic of great scientists the vexed problem of tumor causation is explained as follows: "The cause of these growths (tumors), which by inspiring terror drive so many women to a premature death by way of the operating table, is so simple a thing as a poor circulation

of the blood. Tumors are caused by a stagnation of the venous blood. . . . This important discovery on our part has swept away the mist that has always surrounded this subject and enabled us to accomplish the most remarkable cures . . . ."

But not only will Viavi cause a diminution in the size of tissues not wanted, but, *mirabile dictu*, it will bring about an increase in bulk in those tissues which are desired. For, say its exploiters, "we recall particularly the case of a man suffering with wasting of the testicles, who secured perfect recovery from the Viavi cerate applied to the scrotum." The delightful ambiguity of this sentence, by the way, is an illustration of the shrewdness of their literature generally. It will be noticed that they do not say that the patient recovered from the condition for which he was treated, but that he made a "perfect recovery from the Viavi cerate"!

Where statements are made claiming more for the remedy than even the gullible laity would be willing to swallow, the verbiage is so changed as to present the "truth" in the form of a syllogism. To say, point blank, that Viavi would cure appendicitis, paralysis, locomotor ataxia, *et al.*, would possibly arouse a healthy skepticism which would prove unhealthy for Viavi. We are told, therefore, in one part of the literature that all these diseases "and many more, proceed from a depletion of nervous force—*from nervous debility*," while elsewhere we are informed that Viavi *cures nervous debility*.

Such, as our western contemporary says, is the "business which has made two men, starting with practically nothing, affluent. Their patrons consist of confiding sick and suffering women, to whom, not skilled in medicine, their literature appeals."

We regret that we have not the space to quote the complete article. It is also to be regretted that a reprint of it can not be placed in the hands of those who are being humbugged so effectively by this California fraud.

THE VIAVI "TREATMENT."

ELMIRA, N. Y., May 27, 1907.

To the Editor:—The enclosed letter was written to a woman who had paid the Viavi representative $175 cash in advance for a "course of Viavi." The female representative had diagnosed a "tumor" (!) and had warned the woman to steer clear of any or all physicians, or take her chance on being ordered to the hospital for an operation (horrors!). After having used the "three-fold Viavi cure" for some eight or ten months and feeling somewhat worse, she visited a physician, who

failed to find a tumor, but did find a retrodisplacement without adhesions. The symptoms, which had been severe backache, some headache and irritable bladder, were permanently relieved by replacing the uterus and using large tampons for about one week. While no further treatment was given or advised, the patient to-day (May 27, 1907) is in excellent health and laughs at the suggestion of examination or further treatment. The Viavi representative had the patient examined by the Viavi (female) "doctor," who corroborated the diagnosis of a "tumor" and urged another six months' course ($75 worth) of the "remedies." The Watkins (Schuyler County) Medical Society brought an action against this Viavi representative for illegal practice, which was discontinued without prosecution, I believe.

Viavi is successful financially—I am ready to swear to that.

WILLIAM BRADY, M.D.

[The letter Dr. Brady encloses is too long for publication. It is poorly written and shows that the writer, although able to work the dear women, is not blessed with too much education.—ED.]

VIRGIN OIL OF PINE.

A Food Law Development.

(From The Journal A. M. A., April 20, 1907, 1366.)

In THE JOURNAL, March 16, 1907, page 967, we called attention to an alleged prescription which is shrewdly advertised in newspapers as a "simple home mixture which any druggist can put up." One of the ingredients, however, is a nostrum. This method of advertising is one way of evading the Food and Drugs Act.

A recent number of *Printer's Ink* directs attention to a similar case. The preparation in this instance has been widely exploited in the lay press, largely in advertisements made to appear as though they were reading matter, and is advertised as "Virgin Oil of Pine." *Printer's Ink* says:

> The preparation is put up in half-ounce bottles and is recommended in connection with glycerin and whisky, in a stated formula as a remedy for coughs and colds, lung troubles, etc. Under the pure food law, a cough remedy containing two and a half ounces of simple ingredients suspended in eight ounces of whisky would have to be marked with a label stating the percentage of alcohol. In such a case the percentage would be large. Eight ounces of whisky would be entirely truthful and not at all alarming to the purchaser, but the law prohibits such

a statement and the percentage of alcohol, if stated, would appear so high as probably to cancel a good many sales where purchasers read the truthful label. To overcome this disadvantage in marketing, the company advertises its preparation alone and the reader is given a formula whereby he can compound his remedy himself. As the formula may be advertised without any statement of percentage of alcohol, and as only whisky is mentioned, the remedy is divested of what under other circumstances might appear to be a dangerous remedy. Whether or not this concern has evaded the law is a question for others to decide. It has certainly got around what would have been in its case a serious commercial drawback.

WHEELER'S NERVE VITALIZER.

An Analysis of the Nostrum.

(From The Journal A. M. A., April 11, 1908.)

To the Editor:—I have been much interested in the work that you are doing in exposing the danger lurking in the many well-advertised "nerve tonics" and "headache cures." I want to thank you for your exposure of Harper's "Brain Food." I needed such information. About nine months ago I learned that two women of my acquaintance were taking this preparation and that they had been inducing others to take it. I soon noticed that these women, whose daily duties were exacting, began to show purple lips and presented symptoms of general depression, and I warned them that they were probably taking a dangerous mixture containing acetanilid, and they heeded my warning.

I wish to call attention to "Dr. Wheeler's Nerve Vitalizer" which is sold to the public. The label states that the adult dose is from "one to four teaspoonfuls, or even more." It is recommended for "all nervous diseases . . . sleeplessness . . . sick or nervous headache . . . epilepsy, fits, spasms, St. Vitus' dance, nervous prostration and other severe and chronic cases."

I know two extremely delicate, educated, middle-aged women who have been taking this mixture pretty freely. They are in a pitiable condition of neurasthenia, suffering from gloomy forebodings in regard to the hopelessness of their health, and yet they claim that the medicine has surely saved their lives when all else had failed. I want to know what, if any, are the harmful ingredients of this nostrum. Can the Council on Pharmacy and Chemistry of the American Medical Association help me out, and in so doing help others?

M. R. MORDEN, Adrian, Mich.

COMMENT:—Wheeler's Nerve Vitalizer has been analyzed in the laboratory of the American Medical Association, and the chemists' report follows:

Wheeler's Nerve Vitalizer was packed in a carton bearing the name of the preparation, its manufacturers, "The J. W. Brant Co., Ltd., Albion, Mich.," and an exhaustive list of the diseases for which the product is intended, beside the general statement that it is a cure for "all nervous diseases." The "Vitalizer" is a brown, syrupy liquid having a peculiar salty taste partially masked by licorice. Qualitative tests showed the presence of sodium, potassium and bromin. Quantitative determinations indicated the presence of 12.61 gm. of potassium bromid and 6.30 gm. of sodium bromid in each 100 c.c. of the "Vitalizer." This is equivalent to 9.73 grains of potassium bromid and 4.86 grains of sodium bromid to the fluid dram; a quantity of bromids equivalent to 15.35 grains of potassium bromid.

It would seem from the above report that the label, "Nerve Vitalizer," is a misnomer and constitutes a misbranding very similar to, if not legally identical with, that for which Harper was convicted of violating the Food and Drugs Act. It is certainly not a matter of indifference that delicate women should drug themselves with large doses of depressing agents like the bromids in the supposition that they are toning up an exhausted nervous system with a vitalizer.

The danger of the recommended dose equivalent to over sixty grains of potassium bromid, to be taken indiscriminately by the laity, is evident. Equally vicious is the suggestion that in certain conditions the drug should be used four times daily "for at least one year;" should such advice be followed bromism will inevitably result. The question arises in this connection whether the law ought not to take cognizance of substances as potent for harm as are the bromids, as well as of those drugs which are now included in the list.

PART IV
MISCELLANEOUS MATTER

BATTLE AND FOUGERA COMPANIES OPPOSED TO THE COUNCIL.

(From The Journal A. M. A., May 6, 1905, and Feb. 17, 1906.)

Battle & Co.

We have printed abstracts of letters received from some of the leading manufacturing pharmaceutical houses which favored the movement recently undertaken to separate the good preparations, as far as is possible, from the fraudulent and secret nostrums with which physicians are flooded and which they are expected to prescribe for the sick under their care. Under the circumstances we think it is only fair to give the other side. We are especially constrained to give physicians a chance to read what Battle & Co. have to say, because they have sent the correspondence to various manufacturing pharmaceutical firms, and our readers should have the same favor shown them. With the correspondence they say to the manufacturers:

"We commend the above correspondence to your attention as showing the position we take in regard to the Council on Pharmacy and Chemistry of the A. M. A. We would like to hear any comments you have to make." The correspondence is as follows:

AMERICAN MEDICAL ASSOCIATION.
COUNCIL ON PHARMACY AND CHEMISTRY.

CHICAGO, April 22, 1905.

MESSRS. BATTLE & CO., St. Louis, Mo.

GENTLEMEN:—The Council on Pharmacy and Chemistry is now ready to take up "Bromidia," provided you wish to submit it to that body. We take it for granted that you received the announcement which we sent on February 28, and consequently know the functions of this council.

If you desire to submit the preparation, will you kindly forward five original packages, and also any information you may desire to submit to the council for its guidance? By referring to the tentative rules, as set forth in the announcement, you will readily see the scope of the information desired. If you send printed matter, kindly supply us with fifteen sets of each.

We shall be pleased to hear from you at your earliest convenience.

Very truly yours,
GEORGE H. SIMMONS, Chairman.

St. Louis, April 25, 1905.

Dr. George H. Simmons, Chairman.
103 Dearborn Ave., Chicago, Ill.

Dear Sir:—Yours of the 22d instant received and contents noted. In answer would say that we read very carefully the circular sent by the Council on Pharmacy and Chemistry, February 28. In regard to that and your request, will say: In the northern district of New York, United States Circuit Court, held in the court house at Utica, N. Y., May 3, 1887, Judge Alfred C. Coxe granted a temporary injunction restraining Byron Fenner of Westfield, N. Y., to "desist from printing, publishing or circulating in any book or formula hereafter to be issued by the defendant, his agents, etc., the word Bromidia or Bromidio in connection with the receipt now appearing in Fenner's Formulary, etc., etc." This injunction was made permanent June 7, 1887, the same judge presiding.

We don't recognize the right of any man or set of men to interfere with our property. We do not propose to submit any of our preparations to the so-called Council on Pharmacy and Chemistry. Furthermore, if we learn that the said Council on Pharmacy and Chemistry attempts to incorporate any of our preparations in the book referred to we will ask for an injunction restraining any interference with our property.

Yours respectfully,
Battle & Co., Chemists' Corporation.
C. A. Battle President.

We wish to assure Messrs. Battle and Company that it will not be necessary for them, under the circumstances, to get out an injunction to prevent the council from incorporating Bromidia in the proposed book. Indeed, the underlying principle on which the council is working is that until there is something more than the unsatisfying statement of the manufacturer concerning the composition of his "property," physicians ought not to "interfere" with that "property" by using it on an innocent public.

Fougera & Co.

W. J. Morrison, Jr., Counselor at Law,
43 Broad Street, New York, Jan. 29, 1906.

George H. Simmons, M.D.,
Council on Chemistry and Pharmacy, American Medical Association, Chicago, Ill.:

Dear Sir:—Messrs. E. Fougera & Co., of 90 Beekman street, New York City, as agents for several preparations intended solely for the use of the medical profession, and to which certain registered trademark names have been given,

inform me that in the literature relating to these preparations they have given the full qualitative formulæ, and in many cases the full quantitative formulæ and even the *modus operandi* of manufacture.

They have also informed me that your Association proposes to make analyses of these preparations, which together with certain comment and criticism, are to be published by the said Association.

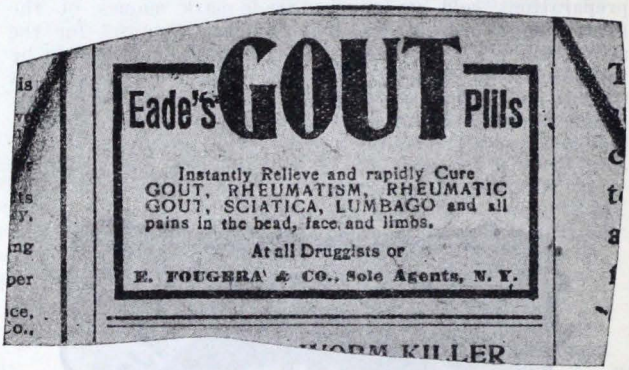
My clients request me to state that they do not desire the publication in the proposed pharmacopeia of "New and Nonofficial Remedies" of any formulæ to which are added synonymous terms, stated to be identical with the preparations sold under the trade-mark names of the firms they represent as agents; and as counsel for the above firm I wish to warn you against the publication by the American Medical Association or the Council on Chemistry and Pharmacy of any false or inaccurate statements relating to the articles for which Messrs. E. Fougera & Co. are the selling agents. Yours truly,

W. J. MORRISON, JR.

Santal Midy is one of the preparations which Fougera & Co., are advertising to the public. This advertisement is reproduced (without permission) from the *Chicago American* of Sunday, Feb. 11, 1906.

Gonorrhea cured in two days! And this is an "ethical proprietary" advertised in reputable medical journals! ! !

It is a pleasure to give publicity to the above letter, that our readers may know the attitude taken by E. Fougera & Co. toward the work of the American Medical Association through its Council on Pharmacy and Chemistry. Since a number of the products for which this firm is the selling agent are already advertised directly to the laity, this action is not to be wondered at. We wish to state again that the annual to be known as "New and Nonofficial Remedies" is presumed to contain, as nearly as possible, only those preparations intended solely for physicians' use. E. Fougera & Co., therefore, need have no fear regarding the listing of their preparations.



This advertisement, taken from the *Chicago Record-Herald,* Feb. 14, 1906, shows another one; there are others, but we have no more space to spare at this time.

TESTIMONIALS.

Their Value to the Nostrum Maker.

(From The Journal A. M. A., April 11, 1908, 1208.)

Testimonials are one of the most valued assets of the stock-in-trade of the "patent" and proprietary medicine manufacturer. Without them the successful exploitation of any nostrum would be well-nigh impossible. In the testimonial the manufacturer is assumed to sink his own personality and give to the public the evidence of a disinterested third party. The value of evidence, so we are told, "rests on our faith in human testimony as sanctioned by experience." The majority of us come in daily contact with people who are, at least in a general way, truthful. Such experience tends to develop a faith in the statements found in testimonials that, while highly

profitable to the exploiters of nostrums, is not warranted by facts.

The "patent-medicine" testimonial, as has been shown by Samuel Hopkins Adams in the "Great American Fraud" articles, is scientifically valueless. The individual giving it, in many cases, becomes the recipient of certain favors, financial or otherwise, of the company seeking it. The testimonal once obtained is worked to the limit—in some cases past the limit. Not long ago *Collier's Weekly* reproduced two items from the same issue of a certain newspaper: One was a "patent-medicine" advertisement consisting of a testimonal from a woman stating how she had been restored to health by using the nostrum advertised; the other was an obituary notice of the same woman!

Leaving the "patent medicine" and looking into the testimonials of the "ethical proprietaries," we find an analogous state of affairs. There is this one difference, however: In addition to the testimonial that appears as such, with no attempt at dissimulation or pretense, we have the "scientific" (?) article form of testimonial. Such articles, appearing in the reading pages of medical periodicals, assume to be scientific dissertations on various matters of interest to the medical profession. Were they written with this object, even though discussions of certain proprietary articles formed the bases of the articles, but little objection could be raised to them. Investigation proves, however, that instead of being impartially critical they are fulsomely laudatory and instead of coming from men of standing in the profession they emanate from individuals whose chief work seems to be furnishing such "copy" for various proprietary houses. So long as the therapeutic claims of a large proportion of proprietary preparations are based on no more reliable foundation than that fur nished in this way, so long is the intelligent physician compelled to assume an attitude of healthy skepticism toward all such claims.

LEHN & FINK'S METHODS.

How They Advertise and How the Testimonial Market Is Supplied.

(From The Journal A. M. A., Feb. 29, 1908.)

By a curious coincidence we received by the same mail two communications from physicians in different parts of the country regarding the advertising methods of Lehn & Fink of New York City. One of our correspondents, Dr. John A. Hawkins of Pittsburg, Pa., who enclosed a letter from Lehn &

Fink to which we refer below, calls attention to this firm's method of reaching physicians. Dr. Arthur R. Elliott of Chicago, who sent the other letter, shows the attitude of Lehn & Fink toward the public. Dr. Elliott's letter is so illuminating that we give it in full:

> *To the Editor:*—The enclosed two pamphlets were received through the mail recently by one of my patients and he being very much impressed by their contents and fully persuaded that he had "uric acid poisoning," brought them to me to ask my advice about the advisability of at once beginning treatment. The one marked "Fourth Series" was received first and prepared the way nicely for its successor. It is apparent that the profession now being able to discriminate between the truth and poetry regarding uric acid, Lehn & Fink, who for so long a time have sought our favors, have decided that it will be more profitable for them to work the public direct. I would particularly invite your attention to the effusion in the second pamphlet by Edward P. Adams, a member of the American Medical Association. [While in the article written by Dr. Edward P. Adams it is stated under the title that he is a member of the A. M. A., this information, like much of the "scientific" matter in the article lacks the element so essential for conviction—truth. He is not a member.—ED.] and more especially to the footnote on page nine. [This footnote is referred to later. It has reference to the author's willingness to give advice by mail. —ED.] This comes precious near being quackery. It seems to me that the conduct of this firm should be brought to the attention of the profession.
>
> ARTHUR R. ELLIOTT.

It appears from the enclosures that the firm in question is at present "pushing" Piperazine Water—advertised as a gout and rheumatism "cure." To awaken interest in this preparation two series of pamphlets are published. One, entitled "Notes on New Remedies," is sent, presumably, only to physicians; the other, which presents a gaudier appearance and a more attractive cover, is sent through the mails to the public direct. Each of these publications contains an eleven or twelve-page article by Edward P. Adams, M.D., of Cincinnati. This gentleman's articles are written to suit his audience. In "Notes on New Remedies" he discusses learnedly—for physicians—the causal relation of uric acid to gout and rheumatism, and gives—for physicians—an imposing bibliography in the most approved style. In the other series he discourses fluently —this time for the public—on "Uric Acid Diseases and Their Treatment with Piperazine Water." In yet another pamphlet of the same series the "Cause and Cure of Rheumatism and

Gout" are popularly discussed—also for the public—and his readers—still the public—notified, that *"the author is at liberty to give advice by mail!"* [Italics ours.—ED.]

The question may arise in the physician's mind as to how Lehn & Fink obtain these voluminous testimonials exploiting their products. Dr. Hawkins enclosed with his letter a communication he received from Lehn & Fink which sheds some light on this subject. We give it in full.

Dear Sir:—Our attention has been directed to the December issue of the *Proctologist*, in which there appears your paper on constipation. We have read this with very much interest, particularly that portion where you make reference to the value of phenolphthalein. From the wording of this portion we infer that you may have mentioned the preparation Purgen[1] also, and that probably the editor cut it out when the article was published, in fact, we have been told as much.

Under separate cover we are sending you the latest issue of our publication, "Notes on New Remedies," which is just off the press. We should have been very pleased to reprint in full your paper in our "Notes" had it not been mutilated in the way we assume. We accordingly desire to ask if you can not find it within your time and inclination to prepare an original communication, treating of the use of Purgen in intestinal troubles, for publication in the next issue of "Notes."

We should value such a paper highly and we are sure our readers, who number some 16,000 among the most representative of the medical profession, would likewise appreciate the information that you may give. *Our customary remuneration for papers of this character is $10.00 per printed page*, [Italics ours.—ED.] which we are pleased to offer you if the offer meets with your approval. Awaiting your early reply, we are,

Very truly yours,

LEHN & FINK.

This letter causes one to wonder whether the twelve-page disquisition on the "Treatment of Gout and Rheumatism with Piperazine," by Dr. Edward P. Adams, is really, what it purports to be, a scientific article of general interest to the medical profession or merely a $120 testimonial made-to-order "by request." One is doubly suspicious, too, that the four-page arti-

1. Purgen is the trade name for the aperient drug phenolphthalein. In Europe this product is advertised in street-cars, omnibuses and even on hotel toilet paper. (See THE JOURNAL, Nov. 2, 1907, 1541.) Extravagant claims are made for it, and while phenolphthalein may be bought for 40 cents an ounce, Purgen is quoted wholesale at $3.20 an ounce in tablet form. For further information see THE JOURNAL, Sept. 14, 1907, 954 and p. 220 this edition.

cle in the same publication on "The Internal Treatment of Gonorrhea" (with Gonosan), represents but $40 worth of "copy." This Gonosan testimonial was written by the renowned A. H. Ohmann-Dumesnil, A.M., M.E., M.D., Ph.D., etc., editor of the, now defunct, *St. Louis Medical and Surgical Journal* of unsavory reputation. Possibly, however, Lehn & Fink vary their schedule of rates for such testimonials according to the professional standing of the authors furnishing them.

PLAGIARISM AND PAID TESTIMONIALS.

"Visvit" and "Hygiama."

(From The Journal A. M. A., May 2, 1908.)

The indiscriminate praise of new articles introduced into therapeutics by means of fulsome write-ups of the "original article" type has long been a standing disgrace to medical journalism on both sides of the Atlantic. The evil is being fought in Germany by the organization of some of the more reputable medical journals and one of these, the *Berliner klinische Wochenschrift*, in its issue of March 23, 1908, unearths a ludicrous example demonstrating the worthlessness of such "literature."

The phraseology of the text and the clinical histories in an article appearing in *Heilkunde* on "visvit" had a familiar sound. Diligent search was rewarded by the discovery of the original text, which had been published in 1899 in the *Communications of Styrian Physicians*, as a contribution praising another preparation, "hygiama," and two of the clinical histories were found in another article devoted to the same preparation. The correspondence between the two articles is so complete as to exclude accident. The one is simply a reproduction of the other with the word "visvit" substituted for "hygiama." It must be said, however, that the progress of time had led to the enlargement of the original article in a few places so that the proprietors are able to recommend "visvit" for some things which were not thought of in praising "hygiama." It is noticeable also that while the clinical histories are the same, the age of the patient varies, he having grown ten years older before the second article was published. The names of the authors are withheld by our German contemporary, but parts of the two articles are printed in parallel columns, showing the almost exact identity of language in the two. Visvit is made by Arthur Horowitz, Berlin, manufacturer of arrhovin, pyrenol, etc.

PSEUDOMEDICAL PERIODICALS.

Contributors Show a Lack of Self-Respect.

(From The Journal A. M. A., May 2, 1908.)

H. Kohn has an article on "pseudomedical periodicals" in the *Berliner klinische Wochenschrift*, March 30, in which he calls attention anew to the evils of allowing one's name to be published as one of the collaborators or contributing an article to a pseudomedical journal which is in reality a "house journal" sailing under the flag of scientific literature. It is amazing, he adds, to see how readily men of prominence will contribute an article or allow their names to be published as collaborators on some newly founded medical journal, or one that is striving to enlarge its field, when the men floating the journal are personally unknown to them. These physicians would hesitate before giving a person with whom they have but a superficial acquaintance a letter of recommendation to a friend, and yet they give what amounts to the same thing to a journal published by a man of whom they know little or nothing. In the first case they injure only one person, while in the pseudomedical journal they may injure thousands who may act on their recommendation. Any man who respects himself is careful of his associates in public and he should be fully as careful as to his associates in the field of science. Before giving the use of one's name or contributing an article to a medical periodical, it is one's solemn duty, Kohn declares, to investigate the character of the editor and of the journal in view. In Germany a confidential appeal to the Association of the Medical Press will obtain for him the desired information. He adds that any one who would impute unworthy motives to the old and honorable German medical journals in their replies to such an inquiry is unworthy of notice. These medical journals voluntarily relinquish the income which they could have if they consented to accept the advertisements.

SELF-PRESCRIBING.

The Awakening of the Public to Its Dangers.

(From The Journal A. M. A., May 16, 1908.)

The *Ohio State Medical Journal* quotes the following editorial from the *Ohio State Journal* of Columbus, as an "encouraging sign of the times and an evidence that the leaven is working in the minds of thinking people."

SOMEWHAT CRIMINAL.

Practicing medicine is a pretty dangerous thing for the patient, if the man doesn't know anything about the science, and

sometimes it is rather dangerous for the alleged practitioner himself, as was the case with a fellow out in Massachusetts who sold a person two bottles of "catarrh cures" that contained cocain. The catarrh curist was arrested, fined $50 and put in jail—a practical lesson to all who have no business to deal in medicine.

Then, there was that woman, mentioned in the papers the other day, who gave the little girl attending her daughter's party some of her headache medicine, and then put the child to bed to sleep it off. The child went to sleep and never wakened again. . . .

Sometimes these little medicine adventures do not result fatally. But most of them, if ignorantly taken, manage to get around among the organs somewhere and do more or less damage. It is about as bad to deal haphazard with powerful cures as it is to go meandering about a powder magazine with a lighted candle.

The commentator wisely says: "In time we hope that our daily papers will be bold enough to actually name the specific 'catarrh cures' which contain cocain and the headache tablets which kill the unwary. In the meantime, such articles as these will help to educate the people and to crystallize public opinion."

The last year has shown a gratifying change in the attitude of many lay journals. We hope that in time the majority of editors and publishers may realize that they have a public function to perform, and that it is their duty to lead in all movements to protect the public health rather than to exploit the public to their own advantage by opening their columns to the advertisements of dangerous or fraudulent preparations.

"SHAC" AND ITS PROMOTORS.

How the Sale of Headache Remedies Is Pushed.

(From The Journal A. M. A., Oct. 19, 1907, 1381.)

The campaign against the indiscriminate use of headache remedies certainly has done some good. But while newspaper reports indicate that there are fewer cases of poisoning and death from these preparations, some excerpts which we quote below from the *New Idea*, a monthly journal owned and published by Frederick Stearns & Co., and devoted to advertising Stearns' products to druggists, show that this firm, heedless of the warnings uttered by physicians against the indiscriminate use of headache remedies, is endeavoring to promote the sale of SHAC (Stearns' Head Ache Cure) in a most reckless—we might almost say criminal—manner. Shac is put up in wafers and each wafer is stated to contain 4 grains of acetanilid. While shac is sold and "pushed" by

Frederick Stearns & Co., Detroit, it is stated on the package to be "prepared for Stearns & Curtius (Inc.), 5 Platt Street, New York."

SHAC ADVERTISED IN SUBWAY CARS.

Stearns' Head Ache Cure (now called SHAC) is being extensively advertised in the subway cars in New York City. SHAC is becoming familiar to thousands of people every day. This benefits not only New York druggists, but all other druggists. SHAC costs you $1.50 a dozen. What other product advertised in this way allows you as great a profit?

SHAC—Stearns' Head Ache Cure—has been curing aching heads for sixteen years, and at the end of this long and meritorious service, everyone is satisfied. SHAC is sold and used in all parts of the civilized world. What test is better than the test of time? SHAC sells for 25 cents. You make 100 per cent. profit.

While the advertisement states that every one who uses SHAC is satisfied, we venture to suggest that the patient, the poisoning of whom was reported by Dr. Cassady, Bisbee, Ariz., in THE JOURNAL, Dec. 15, 1906, page 2012, was not entirely pleased with the effect of the preparation. In this case, the patient, a woman, took three wafers, an hour apart, though the directions on the package state that only two wafers are to be taken. It must be remembered, however, that most patients think that if a little is a good thing more must be better, and take medicine on that principle. Here is another quotation from Stearns' *New Idea:*

SHAC FOR SHOPPERS.

Shoppers and sightseers often have their pleasure spoiled by headache. This is unnecessary, as by carrying a box of SHAC in the pocket or shopping bag, an aching head may be relieved in a very short time. Wise travelers are learning this. Recommend SHAC to any one contemplating traveling and you will make a friend. SHAC costs you $1.50 a dozen.

Is it any wonder that reports of "heart failure" are so frequent?

Frederick Stearns & Co., "Patent Medicine" Vendors.

(From The Journal A. M. A., July 18, 1908.)

Physicians who attended the Chicago session of the American Medical Association doubtless noticed while riding on the street cars the blatant advertisements of the headache remedy SHAC (Stearns Head Ache Cure). This nostrum, which seems to have been responsible for at least two cases of poisoning,[1] is

1. THE JOURNAL A. M. A., Dec. 15, 1906, 2012, and Nov. 16, 1907, 1675.

put on the market by Frederick Stearns & Co., Detroit—a fact that was noted in these pages a few months ago.[2] It was not unnaturally assumed that these Peruna-like advertising tactics had been adopted by an enterprising local representative anxious to make a "showing." The June issue of the *New Idea*—a monthly journal published by Frederick Stearns & Co. and devoted to advertising their products to retail druggists—shows that this assumption was not well founded. In their journal they inform the druggist that "a new series of SHAC street car cards are now ready for use in the large cities."

The evils of the indiscriminate use by the public of such powerful and insidious drugs as are contained in the various headache remedies need no further iteration. The question has long since ceased to be an academic one and no casuistic reasoning nor specious arguments can hide the fact that enormous harm is being done by the exploitation of these acetanilid-containing nostrums, and the medical profession has expressed itself in no uncertain tone regarding the matter.

SHAC, however, is not the only "patent medicine" put on the market by Frederick Stearns & Co. Just as extensively advertised—and in the same mediums, the street cars—are Zymole Trokeys "for husky throats." Then there is Pam for the dyspeptic, a "tiny tablet of wonderful power," of which the modest statement is made that "every ferment of the digestive tract that is available is used in these tablets, fitting them for use in all kinds of indigestion." Surely, with such drugs at their command, dyspepsia need give physicians no further cause for worry!

These are some of the products put on the market by Frederick Stearns & Co. and vigorously "pushed" by them in advertisements to the laity. A firm which, while soliciting the patronage of physicians through the pages of medical journals, is at the same time furthering the interests of self-drugging and dangerous nostrum-taking, will be looked on with distrust and suspicion by the medical profession.

BEER AND DIAGNOSIS.

Uranalysis by Quacks.

(From The Journal A. M. A., July 18, 1908.)

Four young persons in Germany recently sent a vial each, according to directions, to the "urine specialist," J. Locher, who diagnoses disease from inspection of the urine. Each was informed that he had a catarrhal affection of the stom-

2. The Journal A. M. A., Oct. 19, 1907.

ach, abdomen or throat, and each was instructed to buy a bottle of Locher's remedy, costing $1. They did not buy the remedy, as the vials they sent had contained nothing but diluted beer.

ANALYSIS OF NOSTRUMS IN NORTH DAKOTA.

(From The Journal A. M. A., July 4, 1908.)

It is gratifying to note that the officials of some of the state health boards have realized the true scope and responsibility of the work placed in their hands and appreciate the great injury to public health from the fraudulent manner in which many medicines are advertised and sold. In the eighteenth annual report of the North Dakota Agricultural Experiment Station, the food commissioner, E. F. Ladd, and the pharmacist, L. A. Brown, call attention to the evils arising in connection with the "patent medicine" business. Mr. Ladd says: "The more I have had occasion to look into the subject of 'patent medicines' and their use, the more fully I become convinced of the great fraud that is being practiced. Among the 'patent medicines' there are some possessed of merit, but the greater proportion of those now sold are nothing more than worthless products, often 'dope.'" He also quotes a drug journal to show the attitude of others with regard to some of these products "which claim to be ethical and, therefore, are supposed to be recognized and used under the direction of physicians, but which, in reality, seldom are recommended by physicians of standing."

Mr. Ladd makes the further comment: "By reference to the report of Professor Brown given further on, one will see something of the character of 'patent medicines' which have been sold in this state and have thus far been under examination. Their worthlessness in many cases is clearly indicated. They are often so prepared as to deceive and mislead and make victims of those who use the products. That there is necessity for a more stringent law than any which we now have is clearly indicated, and I can fully endorse the report of Mr. O. C. Beale, who was commissioned by the Australian government to make an investigation of the nostrums sold as 'patent' and proprietary medicines in all English-speaking countries."

Professor Brown's report shows a large amount of good work accomplished during the year. A long list of proprietaries containing cocain is published. Vin Mariani is in this list and receives an exposure occupying over two pages and leading to the conclusion that whatever the claims made

by the manufacturers, "according to our analysis of samples of Vin Mariani it *does* contain cocain, and regardless of whether its presence is due to coca leaves or not, it constitutes it a cocain preparation." Evidently hair-spliting distinctions are not very popular at the North Dakota Agricultural Experiment Station.

The results of the analysis of some "dyspepsia remedies" are very interesting. The report states: "Only a few preparations of this nature have been analyzed in this laboratory, owing to a limited amount of time and help trained in drug analysis, but enough has been done here and elsewhere to arouse in our minds the suspicion that there are very few preparations put up as aids to digestion that have any efficacy whatever." Among the preparations analyzed were Vigni and Malt Papaya, Borscherdt's. The first showed no digestive power and the second a slight action on starch, but none on albumin. It is suggested that in the combination of diastase and papayotin in the second preparation the two ferments mutually destroy each other as has been shown to be the case with mixtures which contain both pepsin and pancreatin in solution.

It is to be hoped that we may have more investigations of similar nature by the responsible boards which are equipped to do work in this field. One advantage of work done under public authority not connected with the medical profession is that the suspicion of medical bias is removed and the advice given in such reports as these ought to be of immense value to the people to whom they appeal and who are liable to be misled by the specious advertisements of nostrums which are both an injury to health and a fraud on the purse.

HELPING QUACKERY.

The Irony of Fate in Attempts at Enlightening the Public.

(From The Journal A. M. A., June 20, 1908.)

O. Neustätter relates in the official organ of the German Antiquackery Society that recently he inadvertently contributed to the foundation of a rampant quack establishment. One of his patients, at Munich, saw on his desk a quack's circular, and they discussed together the ways and tricks of charlatans, Neustätter taking great pains to enlighten his patient as to the evils and swindling practices of quacks. The patient brought him again and again various circulars and quack advertisements, and finally one of a magnetic institute which taught the science of magnetic healing and hypnotizing in a few hours for $40.

The patient was not seen again, but behold! the daily papers soon contained the blatant announcement of a new Institute for Suggestion Therapy for all kinds of nervous affections, youthful indiscretions, rheumatism, etc., and the proprietor was—Neustätter's former patient. He had been wealthy at one time, but had lost his property by his drinking habits, and he learned to see in this quack business a means of replenishing his coffers. He treated one woman for headaches and charged her $250, which she had to pay under menace of a suit for, as Neustätter remarks, the German law sets a maximal tariff for registered physicians, but charlatans can charge what they like. He says that he is now doing penance in sackcloth and ashes for he has actually thus been instrumental in founding a new quack establishment while he was preaching an antiquackery sermon.

The inconsistency of the law, however, is what is really responsible for such evils, he adds. The heading of his communication in the *Gesundheitslehrer*, February, is "The Irony of the Law"—*Die Ironie des Gesetzes oder Aufklärungsfolgen.*

"NERIOT FERMENT."

(From The Journal A. M. A., July 11, 1908.)

Two handsomely dressed persons applied to a number of drug stores in Paris with a prescription calling for "Neriot ferment according to the formula of Dr. Henry (depot 129 Rue Montmartre)." The druggists sent to the depot and each bought a bottle of the ferment. It turned out that this depot had been rented for the day and a supply of bottles installed. The two swindlers decamped with the proceeds that evening, forgetting to pay the rent, but their landlord, finding the demand so lively, prepared more bottles and continued to sell the "ferment" until the police appeared. His "ferment" had the advantage of being harmless, as he used water alone.

EXPOSURE OF FRAUDULENT PROPRIETARIES IN GERMANY.

(From The Journal A. M. A., Sept. 5, 1908.)

The need of an unbiased scientific examination of all medicines of a proprietary nature, instead of reliance on the manufacturer's claims for information regarding them, is becoming generally recognized. In Germany the recent exposure of the

products of Dr. A. Horowitz—Arhovin,[1] Pyrenol,[2] Visvit[3] and Iodofan[4]—by Professor Thoms, F. Zernik and others has done much to show that some method of controlling such products is needed to protect physicians from fraud.

At the annual meeting of the Association of German Chemists (Verein deutscher Chemiker), recently held in Jena, Germany, the necessity for an official board or institute to analyze and pass judgment on proprietary medicines was again emphasized.

A paper was read in which it was held that only an official bureau would be in a position to impart information in regard to the character of such preparations, whether misleading statements were being made about it, and whether the product is dangerous to the public health or deficient in therapeutic properties. The warnings issued by the Berlin police, the Carlsruhe Board of Health and the Pharmaceutic Institute of the University of Berlin have generally blown past like an idle wind, leaving no permanent effect, except that those who exposed the fraud were usually put to much inconvenience and annoyance. The author of the paper stated that he was threatened with a damage suit when, ten years ago, he called attention to the chemically incorrectly designated mixture sailing under a scientific flag, Glycosolvol, one of the first representatives of the now ubiquitous fake synthetics.

Lately, he continued, the director of the Pharmaceutic Institute of Berlin University—Professor Thoms—had to appear in court on account of his exposure of Pyrenol. He commented on the audacity of the manufacturers of fraudulent products who try to frighten their adversaries by arrogant impudence; he instances the fact that the manufacturer of Pyrenol twisted, into advertisements of his remedy, the exposures of it made by Thoms, Zernik and Gadamer. While physicians are the ones who are directly humbugged, in Germany the medical profession seems to be the least concerned about the matter if we are to judge by our German exchanges.

---

1. THE JOURNAL A. M. A., May 9, 1908, p. 1541.
2. THE JOURNAL A. M. A., June 13, 1908, p. 1995.
3. THE JOURNAL A. M. A., May 2, 1908, p. 1440.
4. THE JOURNAL A. M. A., March 7, 1908, p. 784, and April 4, 1908, p. 1135.

THE CONFIDENCE OF QUACKS.

Letters Sent Confidentially to Medical Fakers and How They Are Used.

(From The Journal A. M. A., March 28, 1908.)

We here reproduce a page from a phamphlet issued by the Guild Company, letter brokers, Nassau street, New York City.

"We conduct the largest letter brokerage business in the world," says the circular, "deal only in original letters, handle no lists, hence can guarantee that every letter we offer was written in response to an advertisement, and therefore gives the name, address and other valuable information regarding a person accustomed to dealing through the mails."

"In the case of medical letters you are immediately in possession of the names and addresses of sufferers from a particular disease or ailment and do not waste time and money aiming promiscuously at thousands of people of whom only a few are likely to be receptive of your proposition."

Samuel Hopkins Adams, writing in *Collier's Weekly*, wisely said, referring to a similar list:

"If you have ever been foolish enough to write to any of the quacks and frauds in that list, you may know that your letter is now for sale. You may know that all the things you have said about your health and your person—intimate details which you carefully conceal from your friends and neighbors—are the property of any person who cares to pay four or five dollars for the letters of yourself and others like you."

Medical Letters

AS we have millions of medical letters we can fill orders for any quantity from 1,000 up. Following is a list of some of the different classes of these letters that we can furnish promptly:

Asthma.	General Medical.
Blood Poison.	Hair Preparations.
Bust Developer.	Heart.
Cancer.	Kidney.
Catarrh.	Morphine.
Constipation.	Nervous Debility.
Consumption.	Obesity.
Deafness.	Paralysis.
Drunkenness.	Piles.
Dyspepsia.	Rheumatism.
Eczema.	Rupture.
Eye Troubles.	Syphilis.
Epilepsy.	Stomach.
Female Complaints.	Skin Disease.

Etc., Etc., Etc.

These letters were all written to well known and successful medical advertisers, and are a very profitable class of letters for anyone with a legitimate medical proposition to use.

If you have a medical proposition to get before the people it is most important that you should use original letters. By this plan you can avoid all waste of time and money, addressing only people who are interested in what you have to offer.

Write us for particulars and prices regarding the class of letters you are interested in.

PART V.

NOSTRUM ADVERTISING.

NOSTRUM ADVERTISING IN THE RELIGIOUS PRESS.

(*From The Journal A. M. A., Feb. 2 and Feb. 9, 1907.*)

Dr. F. M. Wood, Carlinville, Ill., writes:

"I am glad that you are showing up the facts on the advertising in religious papers. It seems to me that nearly all our religious papers are guilty in this matter. The *Christian Herald* is the only one I have found that is practically clean. Even they print the Magic Foot Draft ad. I have written several times to the *Presbyterian* of Philadelphia, and to the *Christian Intelligencer* of the Dutch Reformed church (New York), urging the withdrawal of such ads as Mrs. Winslow's Soothing Syrup and Hood's Sarsaparilla, stating their content and, in the case of the former paper, I received no reply. The latter paper replied, stating that they regretted that it was necessary to take these ads in order to continue the publication of the paper, since the amount obtained in subscriptions is in no way adequate to carry on the expense of publication. In this case I carried the matter to the Monmouth County classis of the synod of New Jersey, and they passed a resolution protesting against such advertising in their church paper and urging the synod of the church to take action. Thus far it went, and no further, and I was without any resource to carry it further. It seems to me that the only way to get at them is the one you are taking, and to keep urging every physician to call this matter to their attention. If there was a means of getting at their subscription list and cutting it down by reason of such work, that would solve the problem, but it seems as if the gullible public is glad to be fooled. I note that the *Herald and Presbyter* of Cincinnati also publishes these ads. A list of the religious papers who are guilty, printed in THE JOURNAL, would be a help in this matter."

If every physician who is subscribing for a religious journal that carries quack medicine advertisements would do as Dr. Wood has done, there would soon be an end to this copartnership of the religious press in the Great American Fraud. Furthermore, if physicians would get their friends and patients to act also, they would help the cause along still more.

That the fight against nostrum advertisements was begun by lay periodicals is not creditable to medical journalism, and that some of the tardiest papers to come into line, in

the fight for decency and honesty, are the official organs of some of the churches is a sad commentary on our Christian civilization. This attitude of the various religious and semi-religious publications is interesting.

The Alabama Baptist.

Some, among them the *Alabama Baptist,* have discontinued advertisements known to be fraudulent and will get rid of others as soon as the contracts expire. The editors, as a rule, are not competent to judge of the merit of an article of a medicinal nature, or of appliances for the cure or alleviation of disease, even if they were consulted concerning them, and the responsibility for the insertion of these advertisements lies with the advertising manager.

In the journal mentioned above there appears[1] a letter from Dr. H. E. Mitchell, in which he refers to an editorial in that publication praising *Collier's Weekly,* and says, that as he knows the composition of many "patent medicines" he feels it his duty to emphasize the statements made by Mr. Adams in *Collier's.* Dr. Mitchell calls attention to the fact that some of the most "harmless" remedies contain such a large percentage of alcohol that if taken regularly they will create not only a habit for the remedy but will finally lead the individual taking them to a stronger and more powerful stimulant—whisky. The letter goes on to state: "No man should be guilty of taking or giving to a member of his family any drug or nostrum unless he knows its contents, or unless it has been prescribed by a competent physician."

This letter called forth an editorial in the same issue, from which we quote:

> Ever since our attention was called to some advertisements which we were carrying, by a member of the Jefferson County Medical Association, we have quietly been letting them drop as the contracts expired, and from week to week we have turned down many that would have paid us handsomely. We are still carrying some which will not appear again in the columns of the paper as soon as the contracts expire. . . . We do not mean that we expect to exclude all "patent medicine" advertisements, for we hold that some are perfectly legitimate, but we do mean to try to keep out any and all that have been or will be exposed as dangerous or fraudulent. . . . To adhere to our policy will mean a loss of several thousand dollars a year, which means much hard work and sacrifice on our part, but no amount of money will cause us to swerve from what we believe to be right. . . . We be-

1. Alabama Baptist, Oct. 10, 1906.

lieve that up to date only four people have written or spoken to us about the matter. We do it of our own motion, for we do not care to be a party to anything which is hurtful to the health of our readers. We believe that the "drug habit" is a vicious one and we counsel all who feel the need of being dosed to call in a reputable physician. This editorial would have been put off indefinitely but for the fact of a letter from Dr. Mitchell, which we publish elsewhere.

The Columbiad.

Another journal which has fallen into line in the fight for decency is the *Columbiad*, the official organ of the Knights of Columbus—a Roman Catholic fraternal order. This magazine had its attention drawn to a "patent-medicine" advertisement it was carrying, which, while not one of the most objectionable, still made claims that were clearly exaggerated and false. As soon as the magazine was notified, the medicine company was asked to release the publishers from their contract. This they consented to do.

As distinguished from the evident desire to place the editorial and business departments on the same ethical basis as is shown above, the case of the *Cumberland Presbyterian* is to the point.

The Cumberland Presbyterian and "Patent Medicines."

Some months ago we published[2] resolutions adopted by the Miami Presbytery and addressed to the General Assembly of the Cumberland Presbyterian Church, condemning the publication of "patent medicine" advertisements in church papers and directing that the board of publication of the *Cumberland Presbyterian* refuse all advertisements of a medical character, unless they are first approved by a board composed of three physicians selected for their high standing, eminent qualifications, experience and integrity.

These resolutions were introduced by the moderator of the presbytery at Lebanon, Ohio. Under date of Oct. 12, 1906, Dr. B. H. Blair of Lebanon, Ohio, wrote to the Rev. James E. Clarke, editor of the *Cumberland Presbyterian*, calling his attention to the fact that the time for renewing contracts was approaching and asking if it was not possible to reject all medical and other advertisements of a fraudulent nature. The Rev. Floyd Poe, pastor of the church which Dr. Blair attends, also wrote to Mr. Clarke. He said in part:

> I am very much dissatisfied with the tardiness which the management of our paper is showing in the matter of

2. THE JOURNAL, April 21, 1906, p. 1221.

cleaning up her advertising. Please do not think me too presumptuous when I say that I have reached the point in my moral and nervous development where the advertising carried in our religious papers gives me a shock every time that I open them. I do not claim to have a degree of moral sensitiveness that *you* have not, but I do not understand how it is that *you*, with your ideas of right and wrong, can stand for the line of medical advertisements that our paper carries, in the light of the revelations of to-day. It may be that I am unduly wrought up because I know from close scrutiny of the frauds that are perpetrated by these sharks, but I am deliberately forced to the conclusion that the whole scheme is wrong, and any one who lends aid to them is in the wrong.

Now, every honest preacher is placed in the position of an agent or representative of his own publishing house. I stand in that position willingly to-day. But the position is growing embarrassing. I have an officer in my church who is president of one of the biggest fair associations in this state. At my request he positively forbade all "bunco and skin games" the use of his grounds during the last fair, and it was thus advertised, and proved the biggest success ever. The people will endorse the right. Now what shall I say to that man when he asks me this question: "Pastor, why does not our religious weekly, the official organ of our church, which is supposed to stand for all that is right and honorable, clean up its advertisements and forbid all the medical 'bunco and skin games' the use of its columns?" Or this other case: Two of my boys, sons of one of my elders, had the privileges of publishing the fair program this fall, and by securing advertisements make a nice sum of money out of it. There were applications by saloons and breweries for about $50 worth of space, but those boys had read enough to see the wrong, and had courage enough to say "No." And for the first time in its history the fair programs had no saloon or brewery advertisements. Now those boys are reading *Collier's*, *Ladies' Home Journal*, *Success*, Pure Food Laws, etc., and what shall I say to them when they put this at me: "Pastor, we believed in a clean fair program and admitted no questionable advertisements, now what is the matter with our church paper that it will not omit questionable advertisements from its pages?" Truly people are making this a reading and thinking age. Place yourself in the position of a pastor, then tell me what you would say to such questioners.

But probably the question at this moment in your mind is this: "Why do you not show me what are the questionable advertisements we are carrying?"

In answering this question let me kindly suggest that it is not the ethics for the profession of the law for a *reputable and safe lawyer to advertise.* He may put his

card in the paper, but he does not advertise "Divorces granted without fail"; or, "Indemnity from the effects of your crime guaranteed." No reputable lawyer will do this, and no one knows this better than the lawyers themselves.

Again, *no reputable and safe minister of the gospel will advertise.* He may invite you to services, but he will not say that he is the best preacher in the town or state; that he can marry to stay married, that he has the only true plan of salvation. It is contrary to the ethics of the profession, and no one knows this better than the ministry, of which high class you are one.

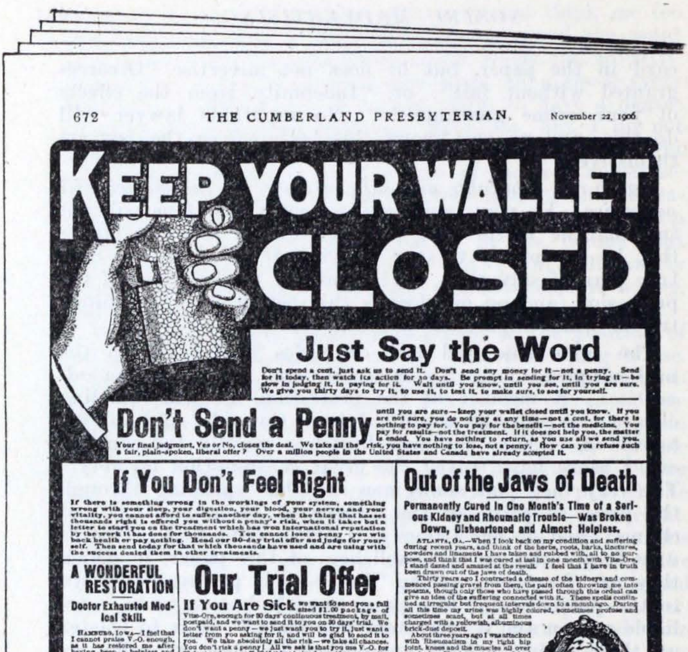
The same rule and law of ethics holds true in the medical profession. *No reputable and safe physician advertises.* A member of the profession in good standing does not say to the world, "I have the only cure for catarrh" or "I have the only knifeless remedy for cancer," or "I alone have solved the great consumption mystery." The very fact that some men are thus speaking through the press is proof of the falsity of their position and claims; *and no one knows this better than they.* That is why they insist on the publishers of this paper, in which they pay for space, saying "Dr. —— is personally known to the publishers of this paper, and is known to be a reliable person and a competent physician." It is to bolster up their claims. They know that the best remedies as soon as found out are heralded from one side of this earth to the other that all mankind may be benefited; but they seek to enlist the support and influence of the religious press, of which influence you wrote so well in this week's paper, that color and appearance may be added to their false claims.

I am sure that the reason for your seeming acquiescence in these fraudulent advertisements is because it has never occurred to you to investigate. I am a firm believer in this proposition, that when James E. Clarke investigates anything and finds it to be wrong, that very moment he is uncompromisingly against it.

In reply Mr. Clarke wrote that it was hardly the function of such a paper as the *Cumberland Presbyterian* to decide questions in accordance with any professional code of ethics, and that the underlying principle of practically all modern advertising is that the goods advertised should be represented as superior to other goods of the same class.

The manager of the paper wrote:

"There is not a point you mention which we do not in some way come up with. The difference in your viewpoint and ours is that you speak of 'patent-medicine' advertising only, while we see the unsatisfactory features of all advertising. To put it in a nutshell—that advertisement



672 THE CUMBERLAND PRESBYTERIAN. November 22, 1906

KEEP YOUR WALLET CLOSED

Just Say the Word

Don't spend a cent, just ask us to send it. Don't send any money for it—not a penny. Send for it today, then watch its action for 30 days. Be prompt in sending for it, in trying it—be slow in judging it, in paying for it. Wait until you know, until you see, until you are sure. We give you thirty days to try it, to use it, to test it, to make sure, to see for yourself.

Don't Send a Penny

until you are sure—keep your wallet closed until you know. If you are not sure, you do not pay at any time—not a cent, for there is nothing to pay for. You pay for the benefit—not the medicine. You pay for results—not the treatment. If it does not help you, the matter is ended. You have nothing to return, as you use all we send you. Your final judgment, Yes or No, closes the deal. We take all the risk, you have nothing to lose, not a penny. How can you refuse such a fair, plain-spoken, liberal offer? Over a million people in the United States and Canada have already accepted it.

If You Don't Feel Right

If there is something wrong in the workings of your system, something wrong with your sleep, your digestion, your blood, your nerves and your vitality, you cannot afford to suffer another day, when the thing that has set thousands right is offered you without a penny's risk, when it takes but a letter to start you on the treatment which has won international reputation by the work it has done for thousands. You cannot lose a penny—you win back health or pay nothing. Read our 30-day trial offer and judge for yourself. Then send today for that which thousands have used and are using with the success denied them in other treatments.

A WONDERFUL RESTORATION

Doctor Exhausted Medical Skill.

HAMBURG, IOWA—I feel that I cannot praise V.-O. enough, as it has restored me after having been a helpless and hopeless invalid for three long years. I had Rheumatism and Paralysis, and my Kidneys and Liver had been very much deranged for years. There seemed no limit to my nervousness. I was reduced from 165 to 75 pounds in fact was called a total wreck. I could not feed myself, could not rest and much of the time I could not speak. We tried many physicians and patent medicines and also sanitariums. My last doctor said he had never seen anything to compare with my case and that he had exhausted his medical skill upon me. I have now been using Vitæ-Ore for six months and can say that I enjoy life and my work. My weight has been increased to 144 pounds. I can do all of my own work and go when and where I please. The doctor now tells me to recommend it. MRS. W. O. VANDERPOOL.

Our Trial Offer

If You Are Sick we want to send you a full sized $1.00 package of Vitæ-Ore, enough for 30 days' continuous treatment, by mail, postpaid, and we want to send it to you on 30 days' trial. We don't want a penny—we just want you to try it, just want a letter from you asking for it, and will be glad to send it to you. We take absolutely all the risk—we take all chances. You don't risk a penny! All we ask is that you use V.-O. for 30 days and pay us $1.00 if it has helped you, if you are satisfied that it has done you more than $1.00 worth of positive, actual, visible good. Otherwise you pay nothing, we ask nothing, we want nothing. Can you not spare 100 minutes during the next 30 days to try it? Can you not give 5 minutes to write for it, 5 minutes to properly prepare it upon its arrival, and 3 minutes each day for 30 days to use it. That is all it takes. Cannot you give 100 minutes time if it means new health, new strength, new blood, new force, new energy, vigor, life and happiness? You are to be the judge. We are satisfied with your decision, are perfectly willing to trust to your honor, to your judgment, as to whether or not V.-O. has benefited you. Read what V.-O. is, and write today for a dollar package on this most liberal trial offer.

WHAT VITÆ-ORE IS.

Vitæ-Ore is a mineral remedy, a combination of substances from which many world's noted curative springs derive medicinal power and healing virtue. These properties of the springs come from the natural deposits of mineral in the earth through which water forces its way, only a very small proportion of the medicinal substances in these mineral deposits being thus taken up by the liquid. Vitæ-Ore consists of compounds of Iron, Sulphur and Magnesium, elements which are among the chief curative agents in nearly every healing mineral spring, and are necessary for the creation and retention of health. One package of this mineral-substance, mixed with a quart of water, equals in medicinal strength and curative, healing value, many gallons of the world's powerful mineral waters, drunk fresh at the springs.

Thousands of People

In all parts of the United States and Canada have testified to the efficacy of Vitæ-Ore in relieving and curing such diseases as Rheumatism, Kidney, Bladder and Liver Diseases, Dropsy, Stomach Disorders, Female Ailments, Functional Heart Trouble, Catarrh of any part, Nervous Prostration, Anemia, Old Sores, and worn out conditions.

Out of the Jaws of Death

Permanently Cured in One Month's Time of a Serious Kidney and Rheumatic Trouble—Was Broken Down, Disheartened and Almost Helpless.

ATLANTA, GA.—When I look back on my condition and suffering during recent years, and think of the herbs, roots, barks, tinctures, powders and linaments I have taken and rubbed with, all to no purpose, and think that I was cured at last in one month with Vitæ-Ore, I stand dazed and amazed at the result. I feel that I have in truth been drawn out of the jaws of death.

Thirty years ago I contracted a disease of the kidneys and commenced passing gravel from them, the pain often throwing me into spasms, though only those who have passed through this ordeal can give an idea of the suffering connected with it. These spells continued at irregular but frequent intervals down to a month ago. During all this time my urine was highly colored, sometimes profuse and sometimes scant, but at all times charged with a yellowish, albuminous brick-dust deposit.

About three years ago I was attacked with Rheumatism in my right hip joint, knees and the muscles all over my body. Physicians told me I had Diabetes and marked symptoms of Bright's Disease and commenced to dope me with mercury, soda, lithia, salicylic acid, potash, etc., all of which were constantly constipating me, and nearly everything I ate disagreed with me. You can well imagine my condition and state of mind. I was broken down, disheartened and helpless.

By chance I had placed in my hand a paper containing an advertisement of Vitæ-Ore, and, like a drowning man, caught at it, sent for it, and it has proved to be the "Oar" that enabled me to paddle my frail barque into the haven of Health. I used it in hot water and it commenced to benefit from the first dose. In four days I saw a marked change for the better. My urine became cleared up and natural in color. In six days the brick-dust deposit was gone. My bowels became regular, I could eat what I wanted, and what I did eat did not hurt me and was perfectly digested. I slept soundly at night without those terrible hallucinations that had haunted my slumbers so long; but best of all, the pain was leaving my limbs. I could walk without crutch or stick.

Now, after taking a dollar package of Vitæ-Ore, I say I am better in health than I have been in thirty years. All this wonderful change in my condition is due to the virtue contained in one ounce of substance from Mother Earth. Would that I could impress on every one suffering with Kidneys, Stomach and Rheumatic Troubles, what I know of the virtues of Vitæ-Ore. Take it according to directions and you will not be long in joining with me in singing the praises of Vitæ-Ore and praising Theo. Noel for his efforts in introducing this grand boon to suffering humanity.

M. V. Estes

Re-affirmed Over One Year Later

ATLANTA, GA.—My faith in Vitæ-Ore grows stronger every day. I suffered with Kidney Trouble for years and never got any relief until I used Vitæ-Ore, more than a year ago. That did the work, and I am still well. Can get insurance on my life in any company that accepts men of my age. M. V. ESTES.

A TRIAL OF VITAE-ORE WILL TELL YOU ITS OWN PLAIN STORY, A STORY THAT HAS MEANT COMFORT, PEACE, AND HAPPINESS TO THOUSANDS.

READ THE TESTIMONY. Read it again and again. No stronger words have ever been written about any other medicine; no better expressions are truthfully commanded by any other treatment. Vitæ-Ore is as different from other remedies as is pure milk from chalk and water, or the sunlight from a tallow candle. It does not take FAITH, does not take CONFIDENCE, does not take BELIEF, does not take even HOPE to cure with Vitæ-Ore. It takes only a trial—all we ask. This medicine enters the veins of the sick and suffering person and cures, whether the sufferer believes in it or not, even whether he wants it or no. Its substances enter the blood, the vital organs, and work, work, work—a work that cures.

THEO. NOEL COMPANY CUMBERLAND DEPARTMENT VITÆ-ORE BUILDING **CHICAGO, ILL.**

The above reproduction of the cover pages of a religious weekly may be interesting in this connection. It is possible that some incongruity may be found between the front and back covers. The fine print is readable by one who has either good eyes or a magnifying glass. The names of those who have in the past replied the advertisements of this firm—if *Collier's Weekly*, Nov. 17, 1906, is correct—are for sale by firms who deal in the "confidential

Thanksgiving Number.

THE CUMBERLAND PRESBYTERIAN

The Peace, Unity and Purity of the Church.

Nashville, Tenn., November 22, 1906.

THE GLEANER.

"The harvest truly is plenteous, but the laborers are few."

Issued weekly by the Cumberland Presbyterian Publishing House, Nashville, Tennessee.

REPORT OF BROTHERHOOD CONVENTION.

letters," of people who are sick or who have decided that they are sick after reading nostrum advertisements. After a firm has bled those who "don't feel right," as far as it can, the letters are sold to other nostrum vendors, who in turn may snatch the unfortunates "out of the jaws of death," etc. Is not this a delightful business for a religious weekly to cooperate in?

> is exceptional which does not grossly exaggerate. . . . It is not a question of 'patent-medicine' advertising—it is a question of nearly all advertising. The very papers which, *with axes to grind which other papers understand* [Italics are ours.—ED. JOUR. A. M. A.] are leading the crusade against the medicines, are carrying in their columns at the same time lies galore setting forth other wares."

The advertising manager, taking up the quotation from the paper, "Dr. ——— is personally known to the publishers of this paper, and is known to be a reliable and competent physician," replies more specifically:

> "That is endorsement, all right, and if you had spent one-half the time that I did in investigating Dr. Weber . . . you would have a different view of the subject. Dr. Weber is an elder in one of the largest Presbyterian churches in Cincinnati, he is superintendent of the Sunday school and chairman of the finance committee."

The advertisement which was so carefully investigated was:

CANCER.

WELL-KNOWN RESIDENTS OF THE SOUTH TESTIFY TO ITS SUCCESSFUL TREATMENT AND CURE.

Dr. Chas. Weber, of Cincinnati, Ohio, has made the treatment of Cancer a specialty for many years without the knife. As an evidence of his success he refers to Mrs. E. M. Swift, 743 Fifth St., Louisville, Ky., who was cured of a large cancerous growth affecting her left arm, for which amputation of the arm had been advised.

Hon. A. A. Oden, County Treasurer, Hartselle, Ala., cured of face cancers five years ago.

Mrs. J. C. Eby, 74 W. 11th St., Covington, Ky., cured of cancer of the breast eleven years ago.

Mrs. R. Y. Moses, Brownsville, Tenn., cured of face cancer.

Dr. Weber is personally known to some of those connected with "The Cumberland Presbyterian" and we have every reason to believe that he is a reliable man and competent physician.

Address Dr. Charles Weber, 17 Garfield Place, Cincinnati, Ohio, for book of information.

A fact overlooked by both the Rev. Mr. Clarke and the managers of the paper is, that in buying most things—clothing, utensils, apparatus—the purchaser is more or less familiar with the goods and generally has an opportunity of judging for himself the value he is getting for his money. The average layman, however, even of the educated class, has a deep and abiding ignorance of all things medical and is totally unable to judge of the value of the thing advertised. The fact that it is advertised in his church paper gives him confidence in it. He has no opportunity to examine it to see if it is what it is claimed to be. Even in the rare instances in which the composition is given on the label, the names of the drugs convey no meaning to the layman who knows nothing of their

action, either alone or in combination, and the manufacturers of "patent medicines" take advantage of this.

But aside from this there is a fundamental difference between offering for sale some article of merchandise, even granting that such an article is grossly misrepresented, and offering for sale a "cure" for an incurable disease or a nostrum containing powerful or habit-forming drugs. In the one case, should the article and its advertised description be too palpably at variance, the purchaser has a simple remedy: the law. But what recourse has the poor victim of cancer or tuberculosis who wastes precious time—to say nothing of money—in a fruitless endeavor to "cure" himself and finally reaches a stage where no skill, however great, can avail him; or what recompense has the alcoholic or the morphin habitué who has been dragged to the depths by innocently prescribing for himself a "tonic" or a "catarrh cure." It is curious to what casuistry men descend in defending their business relations. Members of a church place confidence in their church paper as they do not in lay newspapers. They read the latter with a certain amount of doubt, the newspapers are not posing as teachers, but as disseminators of news. The religious journals are teachers of religion, of morals, of ethics, of truth and justice, and their readers naturally place dependence on what is contained not only in their reading, but in their advertising pages. For this reason the religious press is the favorite medium for quack medicine advertising. It is cruel, if not criminal, for such papers to enter into alliance with "patent-medicine" men and thus help to delude and swindle the sick and suffering.

One other thought: Physicians who take religious journals that carry obnoxious advertisements should take the trouble to write in protest to their editors. This they should do, not sporadically but persistently, and get others to do the same, and in time these journals will grant to business pressure what they refuse to concede to common decency.

VITÆ-ORE.

Theophilus Notel, The "Transatlantic Quack."

(*From The Journal A. M. A., Feb. 16, 1907.*)

Strikingly apropos of the article on "Nostrum Advertising in Religious Papers," in THE JOURNAL, February 2, comes a voice from across the Atlantic in the form of an article in the *British Medical Journal*, January 26. The article is headed "The Transatlantic Quack." Surely every loyal American

citizen must feel a glow of honest pride on reading the opinion, held in British professional circles, of American business methods. The writer says:

> Many hard things have been said about American business ways, but nothing puts them in a more despicable light than the letters addressed by so-called companies carrying on a medical business in this country in the name of American quacks. One of the most repulsive of these purports to be sent out by the Theo. Noel Company, Limited, dating from 29 Ludgate Hill, London, E. C., whose vice-chairman is said to be J. R. Noel, M.D., and is addressed to clergymen. The merits of the company's nostrum called Vitæ-Ore are heralded in this style: "Is it not a fact that sickness among the members of your congregation is a great hindrance to your plan and work? Do you not often wish that, like the Great Physician, you could heal the body as well as minister to the soul? You may be tempted to throw this letter down and conclude that we are talking cant for business purposes. [The writer of this circular anticipates, with marvelous clearness, the effect produced on any intelligent reader by his composition.] "We admit we are talking business, but what is the use of preaching that Christianity is applicable to all conditions of business life, if as soon as a Christian business man refers to Divine things, he is set down as a charlatan talking cant?"
>
> Then follows an offer to supply, gratis, packets of "Nature's tonic and healer," to be paid for one month from receipt, only if benefit has been derived from them, "in the hope to benefit some of these poor persons and thus set them talking about Vitæ-Ore." The writer boasts of the number of church ministers who have availed themselves of this offer and of the "editors of the leading medical religious newspaper who have endorsed the claims of the company's remedy."

As shown in the cut printed in THE JOURNAL,[1] the *Cumberland Presbyterian* (issued weekly by the Cumberland Presbyterian Publishing Union) advocates the "Peace, Unity and Purity of the Church" on the front cover and Vitæ-Ore on the back. The English branch of the Theo. Noel Company asks English clergymen to use its nostrum, so that "like the Great Physician, you can heal the body as well as minister to the soul," and when a minister of the Cumberland Presbyterian church remonstrates against the prostitution of the pages of his paper, the Rev. James E. Clarke, editor, replies that it is "hardly the function of such a paper as the *Cumberland Presbyterian* to decide questions in accordance

1. THE JOURNAL, Feb. 2, 1907, p.436. Reproduced on [pp. 262 and 263 of this pamphlet.

with any professional code of ethics," while the manager writes that "the very papers which, with axes to grind which other papers understand, are leading the crusade against 'patent medicines' are carrying in their columns at the same time lies galore, setting forth other wares."

Is one to conclude, from this specimen of ecclesiastical logic, that the argument of the management of the *Cumberland Presbyterian* is that since all advertising is founded on fraud, there is no reason why their paper should not derive as much profit as possible from such conditions? As mere laymen, we are led to remark that such a conclusion savors quite as little of early Christian ethics as it does of any known code of professional ethics, however much it may be in accord with the commercialism of modern religious journalism.

Would the Rev. Mr. Clarke wish his readers to believe that, if the Great Physician were to-day walking the earth among men, he would distribute advertising circulars and sample packages of Vitæ-Ore, instead of loaves and fishes to the multitude that hung on his words, and thus "heal the body as well as minister to the soul?"

Can one imagine Paul of Tarsus, who fought with beasts at Ephesus and who died a martyr for his faith, or the beloved John on the Isle of Patmos, taking the position that it was "hardly his function to decide questions in accordance with any professional code of ethics?"

Would the advertising manager of the *Cumberland Presbyterian* have been willing to certify that Luke, the beloved physician, was "personally known to the publishers of this paper as a reliable and competent physician" unless he had entered the office of this religious journal with a fat advertising contract in his hand?

Can the whole filthy, disreputable nostrum business boast of a more disgraceful piece of literature than this blasphemous and sacrilegious attempt—shown in the *British Medical Journal*—to use the personality of Jesus Christ to boom the sales of a nostrum and to make advance agents out of weak-minded Christian clergymen? And can any honest member—either lay or clerical—of the Cumberland Presbyterian church, or any other church, look without shame on an editor and a paper which, while claiming to advocate the purity of the church have no better defense to offer than that all advertising is lying anyhow, and that other papers do the same thing? Yet much time has been spent in discussing the reasons why the church of to-day lacks the vigor and energy of apostolic times. A glance into some of our religious journals will supply at least a partial solution of the problem.

HISTORICAL.

The interesting nostrum mentioned above has been exploited for the past fifteen years by its owner and "discoverer" (?) Theophilus Noel. This gentleman was formerly engaged in the newspaper business and later in mining and is said to lay claims to special knowledge as a geologist and mineralogist. We are informed that he came to Chicago in 1891 and engaged in the "patent medicine" business, advertising and selling Vitæ-Ore, which he claimed to be a mineral which he had discovered somewhere in Florida or Mexico. This preparation is sold in the form of a powder put up in envelopes which retail at $1.00 each. It is supposed to be dissolved in water and drunk. The advertisements, which appear mainly in religious papers, state: "It is a mineral remedy, a combination of substances from which many of the world's noted curative springs derive medicinal power and healing virtue. These properties of the springs come from the natural deposits of mineral in the earth through which water forces its way, only a very small proportion of the medicinal substance being taken up by the liquid."

An analysis published in Bulletin No. 69 of the North Dakota Agricultural College Experiment Station states that Vitæ-Ore is simply ferric subsulphate (Monsel's salt), to which a little magnesium sulphate (Epsom salt) has been added. Our readers can readily choose the more reliable of these two statements. One can also readily understand how exceedingly beneficial Monsel's salts and Epsom salts would be in cases of rheumatism, diabetes, Bright's disease, gout, "stomach trouble," diphtheria and the other diseases for which Vitæ-Ore is recommended.

This nostrum is also interesting as showing the profits to be derived from such a business. In 1891 Mr. Noel is said to have been compelled to peddle his nostrum in person in order to obtain sufficient means to start his business. In 1893, only fourteen years ago, he is reported to have had in his employ two girls and three men. The extent of the establishment was three or four rooms and a basement. The business now occupies a three story building covering three building lots. The owner has a summer home in Michigan, a winter home in California, a permanent residence in Chicago and spends most of his time in travel. It is alleged that one of his recent trips to Germany was for the purpose of being treated for chronic rheumatism, which evidently Vitæ-Ore had failed to relieve. It is claimed that the present assets of the company amount to over $200,000.

As has been said, most of the advertising of this firm has been carried on in the religious papers. Here we have further evidence that piety, properly exploited, is a valuable asset in the "patent medicine" business.

However, the founder of this edifying mixture of faith and works is no longer the dominant factor in the business. One is led to wonder whether rheumatism has had anything to do with his retirement. Surely not, since the advertisement states that "Thousands of people testify to the efficacy of Vitæ-Ore in relieving and curing rheumatism," and that "This medicine cures, whether the sufferer believes it or not." The principal factor in the business is now Dr. Joseph R. Noel, who was graduated in 1894 from Jefferson Medical College,

LETTERS FOR RENT

300,000 Jas. Wm. Kidd medical file cards, representing all kinds of diseases (will sort) 1904.
180,000 men's matrimonial, 35,000 women's '04, 1st.
200,000 agents and canvassers.
50,000 Dr. Pierce order blanks, '02, '03.
20,000 Ozomulson order blanks, '03.
30,280 Theo. Noel, '02, '03, medical file cards.
59,000 Agents' directory, '03, '04, '05.
250,000 Home work, '03, '04, '05.
27,500 Rosebud trust, firsts, '03, '04.
19,500 Bond Jewelry payups, trust. '04, envelopes.
52,000 10c song orders, Star Music Co., '04, '05.
17,500 Dr. May & Friar. ladies' regulator, '03, '04.
6,000 Nervous debility, '03, '04, Appliance Co.

Over 1,000,000 letters on hand, all kinds. Call or write me for samples and ads. Letters bought.

C. A. Davis, 1634 W. Ohio Street, Chicago.

The above is reproduced from the *Ladies' Home Journal*. Editors of religious papers will no doubt be pleased to learn that Brother Noel, in selling the names of those sufferers who have written him in hopes of obtaining relief, is following the scriptural injunction not to let his right hand know what his left hand doeth.

practiced three years at Ogden and Harrison Streets, Chicago and taught therapeutics for a time at one of the night medical schools of Chicago. Did he advise his students, we wonder, to prescribe Vitæ-Ore for rheumatism? Did he learn his present therapy at Jefferson? He has recently opened a bank, possibly as an outlet for the money sent him by readers of religious papers. It is possible that he foresees the coming end of the nostrum business, and wishes to "make to himself friends of the mammon of unrighteousness." We are informed that he is the J. R. Noel, M.D., alluded to in the extract from the *Lancet*.

Isn't this a delectable mixture? To make a (financially) successful nostrum, take one pious but ignorant man who has dabbled in many things and who talks glibly of all, no money but unlimited nerve, a mixture of any ridiculous stuff, a pinch of mystery, and a plentiful supply of quackery. Put on to boil in a religious weekly, stir slowly with a sensational display advertisement, season heavily and *ad nauseam* with piety and cant of the celebrated Chadband variety and serve hot to an ignorant and gullible public on a Sunday School lesson leaf.

The Christian Advocate.

(From The Journal A. M. A., April 20, 1907.)

The following letter received from a correspondent emphasizes the importance and the value of physicians writing to editors of religious journals regarding their advertising pages. It also emphasizes the value of persistency:

> *To the Editor:*—The question of the impropriety of religious newspapers accepting "patent medicine" advertisements is being discussed in your columns. Formerly the Pittsburg (Pa.) *Christian Advocate* contained such advertisements. Five or six years ago I corresponded with the editor in regard to the matter and he expressed his dissatisfaction with the affair and referred me to the business manager. I wrote many times to the latter partly calling his attention to the fraudulent claims of some advertisements in the paper. To make a long story short, for over a year this class of advertising has been discontinued. I do not know that my writing hastened the matter, but I believe it contributed in a measure to the change. If the physicians who are readers of the various religious journals would take pains to enter their protest, repeating such protests as often as might be necessary, all such periodicals would in time be led to clean up their advertising columns.

Our correspondent's views emphasize the statement which has been repeatedly made in this department. No journal, unless it is run exclusively and solely as an advertising sheet and is distributed gratuitously, will continue to carry advertising matter known to be objectionable to a large number of subscribers, in the face of repeated protests from those subscribers. That the religious papers have been great sinners along these lines in the past is well known. If physicians wish to enjoy reading a religious journal free from objectionable advertisements they have only to follow the example of our correspondent and write to the manager, and keep on writing until the paper is improved.

The "Baptist Flag" and Its Gallery of Frauds.

(From The Journal A. M. A., April 18, 1908)

We have had occasion at various times[1] to call attention to the nostrum advertisements carried by religious papers. In the last two or three years there has been a marked improvement in the class of advertising found in these journals, and more than once we have commented on this fact. That there is still room for improvement is evident from a copy of the Fulton (Ky.) *Baptist Flag* sent us by a correspondent. It would be hard to find in a sixteen-page publication a more complete list of medical frauds of all kinds—from the ridiculous to the indecent, from the dangerous to the worthless—than is to be found in this paper.

AN EXAMPLE OF THE OLD RÉGIME.

Since the Great American Fraud articles appeared, most religious publications have dropped the grosser types of medical fakes, and a few have dropped all "patent medicine" advertisements. Not so with the *Baptist Flag*. Here we find the medicated booze "Swamp Root" put out by "Dr." Kilmer, and that cruelest and most mendacious of frauds, the "Combination Oil Cure for Cancer," marketed by the Uriah Heep of quackdom—"Dr." Bye. The notorious Blosser offers a free trial package of his catarrh "remedy;" "Dr." F. G. Curts goes one better and sends his "50 cent nasal douche, five days' treatment and illustrated book—all free," while Mr. Cheney, of "red clause" fame, caps all by making believe that he will give "one hundred dollars reward for any case of catarrh that can not be cured by Hall's Catarrh Cure." Dr. W. Bailey Williams of Rhea Springs, Tenn., advertises that his practice is "limited to chronic diseases—Dropsy, Asthma, Catarrh, Cancer and diseases of women." His specialty is "removal of cancer without the knife," his fees for which "range from $25.00 to $500.00." As a clincher he gives "free service to the regular ministry." This is probably a safe offer, as it is unlikely that a "regular" minister would accept the services of an irregular physician. "Anti-Pain Pills," "Capudine," "Tetterine," and "Merit Blood Tablets" are some of the other nostrums to be found in this strange mixture of piety and fraud.

EDITORIALS VERSUS ADVERTISEMENTS.

In the "Home Circle" department is an editorial descanting on the need of clean reading for the young. A warning is

---

1. THE JOURNAL, April 21, 1906, 1221; Feb. 2, 1907, 435; Feb. 9, 1907, 534; July 6, 1907, 53; Aug. 10, 1907, 510; Nov. 23, 1907, 1790.

sounded against those publications which "taint the imagination and allure the weak and unguarded from the paths of innocence." An advertisement on another page is addressed, presumably, to those who have been thus tainted and allured. It is headed:

"WEAK MAN RECEIPT FREE"

and goes on to offer a free prescription "in a plain sealed envelope" to those who are suffering from the results of "excesses, dissipation, unnatural drains or the follies of youth." On the same page is the advertisement of a philanthropic lady hailing from Kokomo, Ind., who has sent, absolutely free, to more than a million suffering women "a 50 cent box" of a "simple home remedy, also a book with explanatory illustrations showing why women suffer and how they can easily cure themselves at home without the aid of a physician."

This sample of religious journalism belongs to a type now, happily, nearly extinct. From the frenzied appeal to its subscribers to pay up back subscriptions so that it may not be debarred from second-class mailing privileges, we imagine the proprietors see the "handwriting on the wall." Such publications are a discredit to the high cause they are supposed to represent.

Religious Journals and Nostrums.

(From The Journal A. M. A., July 11, 1908.)

The editor of the *Gesundheitslehrer*, in commenting on the fact that a certain religious journal devotes one-third of its advertising to advertisements of unsavory "patent medicines," remarks: "What would the religious journals say if the medical journals were to devote one-third of their advertising space to announcements of things known to be directly contrary to all the teachings of the church?"

Religious Journalism and the Great American Fraud.

(From The Journal A. M. A., Aug. 10, 1907.)

From time to time we have made reference in these columns to the abuses which have existed and still exist in regard to the class of advertisements carried by religious journals. In last week's issue of *Collier's Weekly* the subject is treated at length by Samuel Hopkins Adams in his latest article on the Great American Fraud.

"Religious journalism," Mr. Adams says, "props one corner of the tottering Great American Fraud. Lend a

quack or swindling 'patent-medicine' vendor the countenance of the church, and he is a made man. Peruna and Duffy's Malt Whisky will spend freely, even extravagantly, to get endorsements from the clergy; mostly on the strength of the churchly title. 'Father John's' face, exploited shamelessly on the boardings which display the dubious virtues of 'Father John's Medicine,' capitalizes the protesting but defenseless Roman Catholic priesthood for the profits of chicanery. It is worth double his rentals for the scoundrelly Richie, D.D., with his 'drug-habit cure,' of concealed morphin, to head his correspondence 'Presbyterian Building, New York City,' and when the Board of Home Missions, which controls the building, discovered the real nature of his business and promptly turned him out, he lost a valuable asset. For Dr. J. W. Blosser of Atlanta to decorate his quack catarrh advertisements (principally in the religious press) with the ornament 'Rev.' means thousands of dollars of added revenue. What did that prosperous medical rascal and fraud, Dr. W. O. Coffee of Des Moines, do when he found that *Collier's* was looking into his 'blindness and deafness cure' fake? Displayed an endorsement from the pastor of his church as a blanket defense. Religious backing, of whatever kind, inspires confidence; and the only religious backing that is openly on the market is religious journalism."

CREDIT WHERE CREDIT IS DUE.

In the effort to be fair THE JOURNAL has recently[1] given credit to those religious papers who either do not lend their pages to the exploitation of fraudulent nostrums or who are honestly striving to eradicate such as they have already contracted for. Mr. Adams gives a much larger list and comments as follows:

"It must not be inferred, however, that all the prints which serve God in their editorial pages serve Mammon in their advertisements. There are journals, like the Unitarian *Christian Register*, the *Universalist Leader*, the New York *Christian Advocate* (Methodist), the Nashville *Christian Advocate* (Methodist), the Los Angeles *Tidings* (Roman Catholic), the *American Hebrew and Jewish Messenger*, the *Record of Christian Work*, the *Christian Herald*, the *Religious Telescope* (United Brethren), the *American Friend*, and *Forward*, which 'touch not the unclean thing.' Others there are, such as the New York *Churchman* (Episcopalian), the *Southern* (Atlanta) *Presbyterian*, the *Interior* (Presbyterian), and the *Epworth Herald* (Methodist), which, with an honest intention and a general policy of decency in advertising, occasionally, through inadvertence, admit fraudulent or dangerous 'patent medicines' to their columns."

1. THE JOURNAL A. M. A., July 6, 1907, 53.

CAVEAT EMPTOR!

One of the stock defenses of the religious journals that advertise nostrums, is, that they refuse, yearly, thousands of dollars' worth of advertising because of its objectionableness.

"Loud and clear in this choral offering rises the voice of the *Christian Endeavor World.* The *Christian Endeavor World,* as the 'official representative of the Christian Endeavor movement,' displays, as its editorial motto, 'Continuing the Golden Rule.' That is very good so far as it goes. But, after studying its medical columns, I would suggest as a second motto, to be printed above its advertisements, the warning, *Caveat emptor!* For the intending purchaser may well beware in reading the man-traps which constitute so large a part of the *Christian Endeavor World's* patronage. Clippings from a few issues, taken haphazard, show, in the line of medical advertising, eight obvious swindles, five dangerous quackeries, and seven promised 'cures' for diseases which are incurable by medicine.

"'Continuing the Golden Rule!' Is this continuing the Golden Rule, to invite the unsuspecting sufferer to cure his own rheumatism by pasting a bit of sticking plaster, surnamed 'Magic Foot Drafts,' on the bottom of his feet, in the hope of 'drawing out the uric acid' by a species of mysterious suction? Or to lure him deeper into the slough of the drug habit by involving him in the toils of the Dr. J. L. Stephens' morphin cure, which consists in giving him, in secret form, all the morphin he craves? Or to point him to the den of that arch faker of optical malpractice, Oren Oneal? Or to deliver him to the tender mercies of Dr. Bye, of cancer ill-fame, or of the remarkably Reverend Blosser, or of Gauss the 'catarrh specialist'? Is it doing unto others as you would have them do unto you, to combine with the swindler Kilmer in the vending of his 'Swamp Root,' or with the bunco artist Cheney with his fake $100 reward for any case it can not cure? Does the responsible publisher of the *Christian Endeavor World* really believe that 'crooked spines can be made straight' by mail? And that F. W. Parkhurst, 'the well-known publisher of Boston,' having 'nothing to sell,' yearns to impart to the public, free of charge, his 'cure' for neuralgia and rheumatism? 'Continuing the Golden Rule,' indeed! Continuing the Golden Brick!"

MAKING A VIRTUE OF NECESSITY.

The rejected advertising spoken of is as a rule merely of those products that are either outspokenly alcoholic in content or such as have been so thoroughly exposed through the press that the publishers dare not accept their advertisements. Says *Colliers:*

"The rejections are too often formal and literal, rather than based on any principle. The Duffy's Malt Whisky concern (whose product is both a fake medicine and a poor whisky) told me that they were constantly appealed to by church papers to advertise under the name of 'Duffy's Malt' or 'Duffy's Malt Remedy.' 'So long as you use the word whisky,' say the pious-minded publishers, 'we can not, of course, admit you to our columns.' That the preparation, with murderous mendacity, claims to cure tuberculosis and pneumonia makes no difference to their eagerness for a share of its earnings. The reek of blood itself will not revolt them, but the smell of alcohol sends their hands up in holy horror. Thus a fine old blended quackery like Peruna will be refused, on the ground that it is a known intoxicant, by religious editors who accept readily enough medical lures to the enslavements of morphin, or even the claims of preparations for the producing of abortion."

EDITORIALS FOR SALE.

Even the editorial columns of some of these journals are open to the purveyor of nostrums.

"The *Christian Century* of Chicago formerly performed this service for its patrons, Oren Oneal and P. Chester Madison, through the pen of its editor, Charles A. Young, but either through a change of heart or a change of editor (both, I suspect) it has forsworn such practices and now comes out with a definite announcement that no suspicious or fraudulent advertising will be admitted to its columns, a pronunciamento which its recent issues certainly bear out, so far as medical advertising goes. That so radical a change of policy should have been put in force is indicative of the recent awakening in religious journalistic circles.

"The 'editorial puff' market is not depleted, however. For any who wish to buy, the Rev. C. H. Forney, D.D., LL.D, editor of the *Church Advocate* of Harrisburg, Pa., is on the bargain counter. 'Organ of the Churches of God' the *Church Advocate* terms itself. Among other assorted rascalities, it publishes the advertisement of Dr. W. O. Smith, 'Specialist,' who deals in 'free medical advice by mail.'

"'Dr. Smith,' proclaims the advertisement, 'has adopted a method by which he can diagnose chronic diseases and successfully treat them at a distance. Dr. Smith has discovered a Positive, Radical, and Safe cure for all forms of Nervous, Chronic, and Special Diseases, such as Weakness in the Back and Limbs, General Debility, Impotence, Lack of Confidence, Nervousness, Languor (*sic*), Confusion of Ideas, Palpitation of the Heart, Timidity, Trembling of the Limbs, Dimness of Sight or Giddiness; Diseases of the Throat, Head, Nose, Stomach, Liver, and Kidneys; Skin Diseases of All Kinds; Blood Poison, Nervous and Vital Weakness, Catarrh, Rheumatism, Dropsy, Asthma, Chronic Bronchitis; Diseases of Women and all Chronic, Lingering

Complaints of Both Sexes. Take one Candid Thought before it is too late. A Week or Month may place your case beyond the Reach of Hope.'

"No intelligent person can read that advertisement without knowing that Dr. W. O. Smith, 'Specialist,' is a charlatan of the most malignant description. But it is not for the intelligent, but for the suffering and hopeful ignoramus that Dr. Smith's bunco game is prepared. And here, in the *Church Advocate's* editorial columns—*editorial*, mind you—we behold the Rev. C. H. Forney, D.D., LL.D., acting as 'barker' for the quack.

" 'The use of electricity in therapeutics is of comparatively (*sic*) recent origin, and its value is not generally known to-day, yet in its application to medicine and surgery it has been found to be of special efficacy. The variety of diseases for which it may be employed with the best results is indicated in the advertisement of Dr. W. O. Smith, which may be found on another page. As Dr. Smith is a well-known specialist in this line of his profession, a worthy and reliable gentleman, we take pleasure in recommending him to our readers. You run no risk whatever in consulting him.'

"The Richmond *Religious Herald*, which is filled with quackery of all kinds, willingly prints as reading matter, in exact imitation of a legitimate paragraph, exploitations of Dr. D. M. Bye's cancer 'cure,' and Vitæ-Ore. For thus deceiving its own subscribers it receives an extra rate from the charlatans."

EXCUSES THAT DO NOT EXCUSE.

As an excuse for its delinquencies "the *Baptist Watchman* of Boston publishes a defense of patent-medicine advertising which embodies certain of the arguments furnished in the 'canned editorials' sent out by the Proprietary Association of America. 'There are many medicines and much medical practice which ought to be condemned,' writes the editor,' and the *Watchman* will not knowingly approve or aid either in any way whatever. There are also many proprietary medicines which are simply physicians' prescriptions or methods which have proved successful in private practice, and which are advertised simply to give them a wider usefulness. The *Watchman* rejects advertisements all the time of those things which may reasonably be objected to.'

"An excellent platform to live up to. But the *Watchman* is jamfull of advertisements of both kinds: the legitimate proprietary remedies and the arrant shams—mostly the latter. Is there no reasonable objection in the mind of Edmund F. Merriam, editor of the *Watchman*, to Piso's Consumption Cure, which, under the Pure Food Law, has been forced to change its name on the labels (though not in its advertising) because its claim to cure consumption is baldly fraudulent? Is not Mrs. Winslow's Soothing Syrup, with

its enslaving morphin, a patent medicine which 'may reasonably be objected to'? Will Editor Merriam explain by what phenomenon of logic or elasticity of ethics he accepts the lucubrations of Dr. Bye, or Oren Oneal, of Liquozone, of Actina, that marvelous, two-ended mechanical appliance which 'cures' deafness at one terminus and blindness at the other, and all with a little oil of mustard, and of Mrs. M. Summers of Notre Dame, Ill., who in print yearns to impart to suffering humanity a sure cure for rheumatism, kidney troubles, and women's diseases, but who, in a composite photograph, would exhibit a full beard and a bass voice, and answer to the description of Vanderhoof & Co., patent-medicine fakers? Finally, has the *Watchman's* editor noted, by any chance, that Dr. Farrar of Boston, one of those leeches who claim to cure rupture 'without the knife or pain,' embodies this significant sentence in his advertisement in the *Watchman's* columns: *'Inquire of Publisher of this paper?'* If this does not mean that the *Watchman's* editorial endorsement is thrown in as a bonus when a quack purchases advertising space, then what does it mean? On the other hand, be it said to the paper's credit, its editorials fly in the face of its patent-medicine patrons by advocating a law 'requiring the full formula on all proprietary remedies.' "

THE MOTE AND THE BEAM.

The human tendency to magnify the mote in our neighbor's eye and totally overlook the beam in our own, is beautifully exemplified in some editorial writings in the religious press.

"For example, the *Gospel Advocate* of Nashville, Tenn., is quite sure," says Mr. Adams, "that the country is approaching ruin through cigarettes; and it further opines that 'the use of the organ in worship is a growing sin in our churches.' I have heard some pretty bad organists myself, but if I edited the *Gospel Advocate* I should clean up my pages a little before setting out to save my fellows from going to perdition via the music route. As a start, the editor might throw out his cancer cures, Vitæ-Ore, Mrs. Summers (the bearded lady of Notre Dame), Winslow's Soothing Syrup, the Reverend Blosser, and the quack Dr. Hathaway. Later, he might continue the good work by casting out the various lesser chicaneries which dubiously decorate his paper, at the end of which house-cleaning he could, with a better grace, tackle the body-destroying cigarette and the soul-destroying pipe organ.

"To the sensitive spirits of the Baltimore and Richmond *Christian Advocate* it is a lamentable thing that terrified Italians, during an earthquake, should have fallen on their knees and prayed to the saints. An editorial on this topic is headed 'Roman Catholic Superstition.' What kind of superstition is it when the *Christian Advocate* incites in its

readers when it points them to A. I. M. (Acid Iron Mineral), purporting to be a cure for anything from eczema to snake-bite, with a special claim as a remedy against bleeding to death? Winslow's Soothing Syrup, Vitæ-Ore, the Kellam Cancer Hospital, the Jackson 'free' rheumatism cure, and Dr. J. W. Blosser of catarrh-cure fame, who is sometimes a Rev. Dr. and sometimes a medical doctor, and at all times a fraud, also appear as appellants to the particular type of superstition which the editor of the *Advocate* fosters. Though not a Roman Catholic, I should much rather appeal for help to a saint in the event of earthquake than to Kellam or Blosser in case of cancer or catarrh.

"'Dr. Buckley has done the Christian public a vast service in his exposures of Christian Science,' approves G. C. Rankin, D.D., editor of the *Texas Christian Advocate*. This is all very well for Dr. Rankin; Christian Science does not advertise in Dr. Rankin's publication, therefore that politic person can commend attacks on it with a free heart. But Dr. Buckley, in the New York *Christian Advocate*, has for years been waging a relentless war not only on Christian Science, but also on the fraud medicines and 'sure cures' which *do* advertise in Dr. Rankin's journal. Does Dr. Rankin exhibit any irrepressible enthusiasm over this phase of his brother laborer's energetic work? Not so far as has appeared. Masterly silence has been the keystone of his strategic policy in this respect. And with sound reason, for if one cuts out from any single issue of Dr. Rankin's *Texas Christian Advocate* all the foul, indecent, dangerous, and mendacious paid matter, the remnant resembles a pattern for a broad-mesh mosquito netting. Cancer quacks, dropsy quacks, private disease quacks, all find equally hospitable refuge, at so much per line, in Dr. Rankin's columns. One enterprising person attains the height of absurdity by advertising, under the self-bestowed title of 'The Texas Wonder,' to cure all kidney and rheumatic troubles by mail for $1. Another advertisement (which most daily papers throw into the waste basket) comes near the depth of degradation in exploiting 'Man Medicine.' Since this reverend gentleman so admires Dr. Buckley, I would respectfully suggest that he make a careful study of that militant editor's advertising pages; for therefrom he will learn, vastly to his surprise, very likely, that it is possible for one of his own faith and church to publish a religious journal, and a successful religious journal, whose advertising pages are clean, honest, and independent of a dollar's aid from any exponent of the Great American Fraud."

THE UNDENOMINATIONAL PRESS.

After dealing specifically with the denominational press, Mr. Adams turns his attention to the undenominational press, which he claims does not shine by comparison.

"The *Christian Work and Evangelist* prints the lures of Sproule, Mrs. M. Summers of Notre Dame, Dr. Bye, Piso's Consumption Cure and Winslow's Soothing Syrup, those twin 'dopes,' and Alice A. Wetmore, who has discovered a 'perfect home cure' for heart disease. The *Ram's Horn* excludes from its pages 'everybody and everything that we believe might abuse the confidence of our readers.' What a singularly touching trust is that of the *Ram's Horn* in its advertising patrons, when, to go no farther, it implicitly expresses its confidence in the thieving Dr. Coffee of Des Moines, and in Oxydonor, which modestly promises to cure not only all nervous complications, but such simple ailments as pneumonia and locomotor ataxia! The list might be indefinitely prolonged, extending from publications which will print anything in which there is a dollar to those which exclude open quacks and dangerous medicines, but accept the comparatively harmless but essentially mendacious claims of such proprietaries as Cuticura Soap and Stuart's Dyspepsia Tablets."

The article as a whole is a serious indictment of the religious press, but an indictment, we regret to say, which is deserved. There are several "telling" illustrations, which add immensely to the effectiveness of the article but to which we regret we can not give space.

Influences for Reform.

(From The Journal A. M. A., Nov. 3, 1907.)

In a recent issue of THE JOURNAL[1] we gave a rather full report of *Collier's* arraignment of the religious press for the character of the advertising it carried. In a later issue of the same magazine[2] Samuel Hopkins Adams discusses the influences for reform, foremost among which he places the clean religious papers. He says:

"The very fact that they maintain themselves without taking blood-money is at once an accusation against their less consistent compeers and a refutation of the plea that without the money of quackery a religious paper can not be self-supporting.

THE CHRISTIAN ADVOCATES.

"On this important point, here is testimony from the *Christian Advocate* of Nashville, Tenn. The *Christian Advocate* is under the general direction of the publication house of the Methodist Episcopal Church. The editor, Rev. G. B. Winton, is made responsible for the advertising also, which is the proper and logical system, and has full powers to reject any objectionable matter. His rule is a simple one: 'That as far as possible advertisements of "patent medicines" be eliminated, and that if any are admitted they

1. Aug. 10, 1907, pp. 510-511.
2. Collier's, Oct. 12, 1907.

must be of articles free from narcotics, and an undue proportion of alcohol, and such as make no spurious claims as to what the medicines will accomplish.' Is the Nashville *Christian Advocate* tottering on the brink of beggary? An inquiry from the management of the paper indicates the reverse:

"At present, when we are more rigid in the scrutiny of advertising than ever before, and when we have three regular editors on our staff instead of two, as has been customary, the paper is self-sustaining.'

"Moreover, the Nashville *Christian Advocate* pays for its contributions, which few religious journals do. It would seem, therefore, to be, like its denominational brother, the New York *Christian Advocate*, an illustration of how an intelligent and conscientious standard of advertising helps rather than hinders a religious paper.

"The *Record of Christian Work* believes that 'to have one standard of orthodoxy for the editorial columns, and another for the business management is nothing less than cant.' Hence, it contrives to get along without taking a percentage for swindling the sick and suffering. So does the *Christian Register*, organ of the Unitarian denomination, which 'has not inserted medical advertising for thirty years'; the *Universalist Leader*, which 'declines everything objectionable regardless of financial results'; the *Catholic Monitor* of San Francisco; the *Catholic Tidings* of Los Angeles, which holds that exploiting fraud is 'incompatible with the teaching of Mother Church'; the *American Hebrew*, which adheres to a policy of 'no medical advertisements accepted'; the *American Israelite;* the *Orthographic Review*, a sectarian publication in Indianapolis; the *Christian Herald*, one of the pioneer protestants against this class of chicanery; *Forward* and the *Westminster Teacher*, issued by the Presbyterian Board of Publication and Sabbath School Work, which 'never inserts medical advertising in our mediums'; the *Cumberland Presbyterian Banner* of Jasper, Tenn.; and, with perhaps an occasional slip through inadvertence in admitting some mildly fraudulent but harmless proprietaries, the *Congregationalist*, the *Presbyterian Standard* and the *Christian Guardian* (Methodist). The *Religious Telescope* of the United Brethren Publishing House is dropping all this class of patronage. 'We do not regard all medical advertisements as harmful,' writes the editor, 'but there seems to be no safe way to attempt a distinction.' *Zion's Herald*, published in Boston, has made a distinction which is admirable if rigidly adhered to. 'Ordered: that after this date the publishing agent of *Zion's Herald* is instructed to decline all orders of advertisements of medicines that are composed in part of alcohol, opium, or other known harmful drugs; of advertisements that suggest disease or work on the imaginations of

the readers for that purpose, and of advertisements that make promises of impossible cures.'

"*Unity* (published in Chicago) 'does not know whether in the mind of *Collier's* it is a religious journal or not,' but in its thirty years of existence it has 'never wittingly yielded its columns to the pernicious advertiser, though it is not ignorant of the tempter and the force of the argument 'that good may come of it.' A study of the columns of *Unity* indicates that it is indeed a religious journal all the way through and that it has no double standard—one set of ethics for the editorial part and another for the advertising. Indeed, a paper which announces conspicuously, 'We absolutely guarantee all advertisements herein,' is obviously concerned with ethics first and earnings afterward."

THE LUTHERAN PUBLICATIONS.

"For the credit of the Lutheran Church the Rev. J. H. Witte of Hannibal, Mo., comes forward with a statement that all the publications of the Missouri Synod are free of fraudulent medical matter, naming specifically *Der Lutheraner, Die Missionstaube, Kinder-und-Jugendblatt, The Young Lutheran's Magazine*, and the *Lutheran Witness*. The *Lutherische Kirchenzeitung* of Columbus, Ohio, has never carried medical advertisements. 'We are opposed to the whole business of pouring unknown drugs or fluids of doubtful character into people,' says the Rev. Mr. Lenski, the editor, 'and are using our influence against it. My church body would call me sharply to task if I took a different course.' It would hardly do to assume that the Lutherans, as a body, are of higher principle or clearer intelligence than other churches, but certainly it would seem that they have the ability, above most others, of making their publications represent the best qualities of their religion."

Mr. Adams then gives a summary of the excuses offered by the various editors whose journals he took to task. Most of these "excuses" do not excuse, a few seem based on the old theory: "No case; abuse plaintiff's attorney." Not all, however, try to evade the impeachment; one editor in particular acknowledging the need of reform.

"From paltering excuse and shuffling evasion, it is good to turn to the words of a religious editor who puts principle above profits. No writing of mine can sum up the essentials of the situation as does this extract from a letter of Frank Willis Barnett, editor and owner of the *Alabama Baptist*, published in Birmingham, a paper which has been full to reeking with fraudulent medical advertising.

" 'I hope soon to have a clean bill of health. From personal experience I know that the man who publishes a denominational weekly has a hard, uphill fight to make

both ends meet. I do not want to pose as heroic, but as sure as you live your articles make it mighty tight on the editors of religious papers. It is easy to say 'Better that they went out of existence.' But when you, or any other man, looks his bread and meat in the face, and sees the pone grow smaller and the cut littler, it is an effort to do right when one's stomach suffers. But, after all, if we believe what we preach and write, we must do the square thing ourselves, or how can we help others to win moral battles? I am glad that I live in an age when men are willing to make sacrifices and when the press is undertaking big reforms against powerful interests. It is no time in which to whine.'"

Summing up, Mr. Adams says, referring to the editor's letter given above:

"Reverend gentlemen of the religious press, you who publish papers of power and influence, backed safely by the financial ability of your church organizations, whither you lead others will follow. If Mr. Barnett, sole owner of his struggling paper, with his whole career staked on his venture, can better afford to cleanse himself of the evil influences that have hitherto been the mainstay of his enterprise, can better afford to see the pone grow smaller and the cut littler, can better afford to be an honorable Christian from cover to cover of his publication than to compromise with the devil of quackery, can you afford to do otherwise?"

The Reverse of the Shield.

(From The Journal A. M. A., July 26, 1907.)

From time to time we have called attention to the shameful way in which religious papers, as a class, sell their pages to the exploiters of nostrums of the most fraudulent character. Church papers come in closer touch with their subscribers than any other law publications. The influence wielded by such papers is immense and their responsibility correspondingly great. It is a matter for congratulation, therefore, to find that many of the higher class of church papers are slowly, but none the less surely, dropping this class of advertising. We have previously published[1] the fact that the *Christian Herald* and the *Alabama Baptist* either do not carry objectionable advertising or are getting rid of it as fast as contracts expire. We are glad to learn from the *Ohio State Medical Journal* that the *Lutherische Kirchenzeitung*, published at Columbus, Ohio, is one of the few religious journals that carries not only no medical advertisements, but has never done so. This record is so unusual that we quote the editor's

1. THE JOURNAL, Feb. 2, 1907, p. 435.

reply to a letter from the Ohio League for the Suppression of Fraudulent Advertising:

> I am happy to state that the paper (*Lutherische Kirchenzeitung*) has never published a line of advertising for self-treatment, in fact of any medical remedy. We are opposed to the whole business of pouring unknown drugs or fluids of doubtful character into people and are using our influence against it.
>
> My church body would call me sharply to task if I took a different course.
>
> I must thank you for sending me the reprint of *Collier's* articles, of which I knew, but which I had not myself read. I shall endeavor to say something in my editorial items concerning this bad medicine business.
>
> R. C. H. LENSKI,
> Editor *Lutherische Kirchenzeitung.*

As the *Ohio State Medical Journal* says: "This testimony does credit to one of the largest and most important church bodies in the United States."

PRESBYTERIES TAKE ACTION.

We had occasion in a previous issue[2] of THE JOURNAL to call attention to the case of the *Cumberland Presbyterian* and the correspondence that Dr. B. H. Blair, of Lebanon, Ohio, had with its editor. As an aftermath it is interesting to note that the following recommendation by Dr. Blair was recently adopted by the Miami presbytery:

> Miami Presbytery, in regular session at Covington, Ohio, this the third day of April, 1907, being convinced, by evidence furnished by those qualified to speak on the subject, that practically all medical advertisements appearing in religious papers are grossly exaggerated, misleading and fraudulent and can not consistently with the purposes of such religious papers be carried by them, we therefore wish to record our unqualified condemnation of the practice of such publications in thus transcending their province and impairing their influence by selling space for such deceptive and fraudulent advertisements, and we recommend and urge editors and publishers of all our publications to exclude all such advertisements. We are confident that the exclusion of such advertisements is not only expedient but right. Such action, we are convinced, will meet with the hearty approval of all Christian readers who are informed on this subject, and will increase the influence for good and the respect in which these publications are held. We recommend that this action be recorded in the minutes of this Presbytery and that copies of it be sent for publication to the *Herald and Presbyter*, the *Interior*, and the *Cumberland Presbyterian.*

2. THE JOURNAL, Feb. 2, 1907, p. 423.

No less encouraging is the unanimous adoption of a resolution, almost identical with the one above, by the presbytery of Lima, Ohio. After referring to the "immortalities and fraudulent practices" in the "patent-medicine" business "as conducted by the Proprietary Association of America," it goes on to say:

> We declare it our purpose to refuse endorsement to church publications which refuse to comply with this requirement. That public announcement of this our purpose may be made, a note of this action is directed to be inscribed in the minutes of this meeting by the clerk, and copies of the same sent by him to the *Herald and Presbyter*, of Cincinnati, Ohio, and the *Interior* of Chicago, for publication.

PETITION THE GENERAL ASSEMBLY.

Resolutions similar in import to the above were also adopted by the presbyteries of Mahoning, Portsmouth, Steubenville and Columbus—all in the synod of Ohio. When the general assembly of the Presbyterian church met recently, overtures were made asking for an official expression of opinion on this subject. The committee to which this was referred, while expressing its strong sympathy with the intent of the overture, called attention to the fact that the church has no control over journals representing themselves as organs of the Presbyterian church. As a matter of fact, such papers are not organs of the church at all, but simply private enterprises conducted for gain. This being so, the assembly had no jurisdiction and could merely recommend that fraternal council be sent to the publishers asking them to exclude from their columns "all advertisements of patent and proprietary medicines suspected of being fraudulent." It was not specified who is to do the "suspecting."

While this official action is not all that might be hoped, yet that was due, not to the committee, but to the system that permits private concerns to control the semi-official organs of the church. From a practical standpoint there can be no question as to the outcome. The church journals, of the better class at least, seeing the handwriting on the wall, will refuse to renew their contracts with the "patent medicine" vendors.

The clergy of the Presbyterian church are awakened to the questionable character of the advertisements carried in the papers which they recommend to their people. There is no doubt that this awakening is due, in general, to the work of the Ohio League for the Suppression of Fraudulent Advertising, and in particular to the energetic work of its executive committee, Drs. D. R. Silver, B. H. Blair, H. M. Lorimer, E. W. Mitchell and J. C. M. Floyd.

Nostrum Advertisements in Fraternal Publications.

(From The Journal A. M. A., Nov. 23, 1907.)

While the official organs of fraternal organizations have not been as lax in their supervision of advertising matter as have the religious papers, many of them have been, and still are, open to serious criticism. Dr. J. W. Robinson, Mackay, Idaho, took occasion to call the attention of the editor of the *Modern Woodman* (the official organ of the Modern Woodmen of America) to the nature of some of the advertisements carried in this, the official, journal of the organization to which he belongs. The editor, in a courteous reply to Dr. Robinson, said, in part:

> It affords me pleasure to report that at the September session of the executive council I recommended that the manager of advertising be instructed to make no new contracts with advertisers of "patent medicines," and that all existing contracts be canceled, to take effect not later than the issue for December, 1907. The executive council unanimously adopted my recommendation. After December, therefore, there will be no "patent medicine" advertisements of any kind inserted in the official paper. If at any time any advertisement appears in the official paper which you know to be a fraud, or in any way objectionable, I will esteem it a favor if you will notify me.

This is one more example of what may be accomplished by the subscriber to any journal which carries objectionable advertisements, and it also exemplifies the fact that the majority of editors and business managers have an evident desire to place the editorial and advertising departments on the same ethical plane. It emphasizes the fact that it lies largely within the subscriber's power to determine the class of advertising he shall be obliged to read; this being so, it is plain to see where the responsibility lies.

Another Fraternal Paper Omits Nostrum Advertisements.

(From The Journal A. M. A., Feb. 15, 1908.)

The *Modern Woodman* announces that, commencing with its January issue, all medical advertising will be excluded. It says:

> "We are taking this stand, not because we believe all medical advertisers are 'fakes,' but because we find it impossible to sift 'the wheat from the chaff.'"

Although this means the loss each month of a considerable volume of advertising, the *Modern Woodman* declares, it is determined to have its columns absolutely free from any kind of advertising that in any way conflicts with the following guarantee of the advertising manager:

"To each member of the Modern Woodmen of America I positively guarantee, while I am advertising manager of this paper, that no advertisements will be allowed in our columns unless I believe that any reader can safely do business with the advertiser. . . . "

The frank statement that it is impossible to discern between safe and dangerous medical advertisements is a confession that might well be made by many a paper if it had sufficient courage.

The interesting point about this action of the *Modern Woodman* is that the advertising manager feels that the step is necessitated by his endeavor to assure to the readers a square deal from every advertiser. He realizes that it is unsafe to count on any such thing from the average "patent medicine" or medical "specialist."

In contrast to the above action is the conduct of another fraternal paper, known as the *Royal Neighbor*, which is brought to our attention by a recent letter. As our correspondent states, the majority of the members of this order are women, and medical advertisers seem to think them easy marks, if we may judge by some very fraudulent advertisements found in this paper. We would suggest to the members of the order represented by the *Royal Neighbor* that they call the attention of the proper authorities to the unneighborliness of this partnership with fraud carried on by their journal.

Nostrum Advertising in Farm Journals.

(Editorially in The Journal A. M. A., Feb. 15, 1908.)

An article entitled "Medical Advertising and Guarantees"—stated to be by a "well-known advertising man"—that is in every way as remarkable as it is gratifying, appears in the January issue of *Agricultural Advertising*. The writer, who claims twenty-five years' experience as an advertising man, first sketches the changes that have taken place in the advertising columns of the farm journals during the past five years, particularly in regard to medical advertising. He then indicates the losses inevitably entailed by the exclusion of "patent-medicine" advertisements. Finally, displaying a considerable familiarity with the conditions of public policy and of general ethics that render such exclusion desirable, he asks what prompts the publishers to turn down year after year a small fortune, and suggests the following significant answer: "Perhaps the foresight of these publishers is clear enough to make it apparent that during the next quarter of a century they will be so strongly entrenched in the hearts of their readers that

it [their circulation] will more than offset in profit their loss on medical advertising." The agricultural papers whose columns are to-day "closed and locked" against this nostrum advertising, according to the writer, are the *Farm Journal* (which has for years refused all medical advertisements), the *American Agriculturist*, the *Orange Judd Farmer*, and the *New England Homestead*, which have together turned down since 1902 some $50,000 worth of such business, and the *Farm and Home*, which has refused some $60,000 worth during the same period. That these papers, which as a class have perhaps less to fear than most others from the stoppage of subscriptions through objections on the part of readers to any specific class of advertising, and perhaps proportionately more to lose also in advertising returns, should be among the first to stand for clean advertising, is of the greatest credit to them. But to those who have the interests of this movement truly at heart their action is in the highest degree gratifying, not only as a significant example of the writing on the wall, but even more because the class of people mainly reached by such journals, living, as they do, more isolated lives than community workers, are more apt to be misled by plausible mendaciousness and specious suggestion, and, moreover, being dependent for their supplies largely on the mail order system, they the more easily fall victims to the vultures of commerce.

Nostrums and the German Medical Press.

(From The Journal A. M. A., July 25, 1908.)

The *Münchener medizinische Wochenschrift* recently stated that it and certain other medical journals had rejected the advertisements of "leucrol," as this remedy was a "secret proprietary," and they preferred to exclude it from their advertising columns. The manufacturers objected to this statement and pointed with pride to their published formula. To this the *Wochenschrift* replies, June 23: "It is true that the firm publishes a formula for leucrol, but nevertheless the remedy belongs in the class of so-called secret remedies. The principal effective ingredient is said in the formula to be: 'Extract. Jubahar, the extract of an East Indian plant of the family of *Ranunculaceæ* much used medicinally by the natives.' Zernik's analysis of leucrol demonstrated the presence of cocoa, sugar and lemon juice, and the absence of any specially powerful ingredient. None of the authorities consulted had ever heard of the plant, and no reference could be found to it in the text-books or special botanic literature."

The St. Louis Medical Society of City Hospital Alumni and Medical Advertising.

(From The Journal A. M. A., March 28, 1908.)

The question of the character of advertising in medical journals has been brought to the fore by the Medical Society of City Hospital Alumni in St. Louis.

A paper was read before that society February 6 and the author declined to hand it over to the journal that prints its scientific proceedings for the reason that the advertising columns of that publication contained notices of more than twenty-preparations not found in the list of remedies tentatively approved by the Council on Pharmacy and Chemistry. In a letter to the president of the society, Dr. William E. Sauer, the author of the paper in question, Dr. George Homan, says:

> Presumably their omission from that list signifies a lack of pharmaceutic merit or therapeutic value as judged and decided by the only competent court officially constituted by the organized profession for that purpose. This body has built a highway and set clear lights burning across what a few years ago was a quagmire in which the profession helplessly floundered, and for such light and deliverance every consistent member of the American Medical Association owes thanks and loyal support in further works to the same end.
>
> This observation is pertinent for the reason that the publisher of the journal in question is a physician in presumed good standing in his local society, and by that fact pledged professionally not only to advance the just efforts and aims of the body mentioned, but to refrain from acts calculated to discredit such work or to encourage among physicians any departure from the tests and standards declared by the Council and approved by the Association. This is a matter that touches the honesty and good faith of the profession, for without clean hands and clean skirts how can the local societies, the state associations, and the national body with good grace wage war on practically the same sort of advertising in the non-medical press?
>
> The status of medical men holding membership in the American Medical Association, who are publishers of such journals and responsible in a business sense therefor, is different from that of all other classes of publishers, being thereby amenable to discipline, and their good professional standing is bound to be sharply challenged because of the dual rôle assumed, and by reason of an attitude that does not square in morals with the purpose of the profession as repeatedly and officially declared. In such cases the dividing line between the claim of the counting room and that of the consultation room must be extremely difficult to locate, for all human experience shows that no

man can serve two masters whose interests lie at opposite points of the compass. . . .

. . . The underlying moral question is a weighty one to the profession and may become a burning issue, and while the society of which you are the head has no official relation to the American Medical Association, still a great many of its members belong to the organization which does stand locally for that body, and it can hardly be thought that the ethical standard of one would be lower than that of the other; and, consequently, no uncertain sound should be given forth as the ultimate demand for accounting and quittance on those who transgress may yet be voiced as of old: Choose ye this day, therefore, whom ye will serve, God or Mammon!

The matter was referred for consideration to a committee, which reported on March 5 that in view of the existing engagement between the society and the journal the obligation to deliver to the latter copy of its scientific work could not be repudiated until next December; this report was accepted, but not until a unanimous expression of opinion was made, by all who spoke, in condemnation of the character of the advertising mentioned, and of the obligation resting on the profession to clean house in this respect.

It is likely that this matter will shortly be pressed on the attention of the organized profession of Missouri in another form.

INDEX.

Index of Drugs, Manufacturers and Endorsers. (Names of manufacturers are followed by names of drugs manufactured by them) :

PAGE.

Abbott Alkaloidal Co.: Calcidin, 93; hyoscin, morphin, cactin..175
Acetanilid mixtures: report of Council..... 3
Acid Iron Mineral.....278
Actina 277
Adams, Edward P.....244
Alleotone 123
Amenoretts 126
Ammonol: analysis 3
Amolin deodorant powder.....128
Anasarcin: report of Council..... 56
Anderton, T. B.: Anedemin..... 13
Anedemin: report of Council.....5; 10
Antidyspeptics 22
Antikamnia: analysis 33; 128
Antiseptics 40
Arhovin 137
Arlington Chemical Company: liquid peptonoids..... 57
Armour & Co.: nutrient wine of beef peptone..... 57
Atoxyl: chemical examination.....88; 164
Ballard: Campho-Phenique 16
Ballard: Snow Liniment..... 16
Ballard's Herbine 16
Barber, O. P.....169
Battle & Co.: Bromidia.....239
Bell & Co.: Salacetin, 225; Sal-Codeia.....226
Billings Clapp Co.: iodide of lime—(Nichols).....102
Bioplasm 138
Bismuth, opium and phenol tablets: analyses.....103
Brant, (J. W.): Wheeler's Nerve Vitalizer.....238
Breitenbach (M. J.) Co.: Pepto-Mangan (Gude).....200
Bromidia 144, 239
Bromo-Seltzer: analysis 146
Bromural: investigation of effects..... 18
Brown's Iron Bitters..... 16
Buffalo Lithia Water.....146
Bull's Cough Syrup.....228
Burnham's Soluble Iodin: analysis..... 89
Calcidin—Abbott: analysis 93
Campho-Phenique: report of Council..... 13
Capudine 148
Carpanutrine: Chemical examination..... 57
Case, C. E.....176

PAGE.
Cellasin: report of Council 16
Chinosol 153
Chloro-Phenique 16
Citarin: test for formaldehyd 40
Cod-liver oil preparations 156
Columbus Pharmacal Company: pepsin and pancreatin compound, 39; Tuberculoids 229
Cox Chemical Co.: Gonococcide 165
Coudrey, H. M.: Labordine Pharmacal Company 48
Crawley, M.: Labordine Pharmacal Company 48
Cuticura Resolvent: analysis 160
Diastase ferments: report of Council 27
Diazyme Essence and Glycerole: digestive test, 28; sugar formation 31
Digestive ferments 21
Doan's Backache Kidney Pills 188
Dodd's Kidney Pills 188
Duffy's Malt Whisky 275
Eade's Gout Pills 242
Eglatol 224
Elixirs containing pepsin and pancreatin 37
Eno's Fruit Salt: analysis 160
Enteronol: chemical examination 161
Estill, Floyd: Anedemin 13
Etna Chemical Company: Phenalgin 212
Fairchild Bros. & Foster: Holadin, 33; Panopepton 57
Farrar 277
Fitch's Kidney and Liver Cooler 188
Foods, medicinal 55
Formaldehyd derivatives 40
Formidin: test for formaldehyd 41, 164
Fougera (E.) & Co.: Santal Midy, 240; Eade's Gout Pills 242
Fruitola 162
Gamble, D. E.: Labordine Pharmacal Company 48
Gardner-Barada Chemical Co.: Uriseptin 114
German proprietaries 163, 253
Glutol: test for formaldehyd 40
Golden seal preparations 96
Gonococcide 165
Gonosan 246
Gowan's Pneumonia Cure 166
Grisard, John W., John P., B. A. and A. F.: Anasarcin 12
Guaialin: test for formaldehyd 40
Guild Company 255
Hagee's Cordial of Cod-Liver Oil 159
Hall, E. A 176
Hance Bros. & White: bismuth, opium and phenol, 105; hydrastis preparation, 97, 99; Phenol Sodique 65
Herrick's Pills 16
Hexamethylenamin: test for formaldehyd 40
Hicks' Capudine 148
Holadin: digestive test, 28; sugar formation 31

PAGE.
Horowitz, Arthur: Iodofan, 185; Pyrenol, 222; Eglatol, 224; Arhovin, Iodofan, Pyrenol and Visvit....246, 254
Hydrastis preparations 96
Hydrocine, 167; analysis....171
Hydrozone 173
Hygiama 246
Hyoscin-morphin-cactin 175
Ingluvin: report of Council.... 42
Iodid of lime (Nichols): analysis....102
Iodofan 164, 185
Iodomuth: test for formaldehyd.... 40
Isopral: investigation of effects.... 18
Jayne's Expectorant 186
Jones, William E....191
Kargon 187
Kidney pills 188
Koehler, Edward E....191
Koehler's Headache Powders: analysis.... 4
Kohler, B. H....176
Kopp's Baby's Friend....227
Kutnow's Powder 189
Labordine: report of Council.... 45
Lactopeptin, 23, 36; report of Council.... 51
Laine Chemical Company: Sulpho-Lythin.... 68
Lanphear, Emory 176
Lehn & Fink, 243; Piperazine Water, 244; Purgen, 245; Gonosan 246
Letter brokers, medical....255
Leucrol 287
Lilly (Eli) & Co.: hydrastis preparation, 99; Liquid Peptones, 57; pepsin and pancreatin compounds.... 39
Liquid Peptones: chemical examination.... 57
Liquid Peptonoids: chemical examination.... 57
Liquor Diastos 37
Littleton, J. N.: Anedemin.... 13
Locher, J. 251
Lukin, F. H....176
Luyties Homeopathic Pharmacy Co....196
Lynch, J. J.: Anedemin.... 13
Malt Papaya, Borscherdt's: North Dakota analysis....252
Maltine: digestive test.... 28
Maltine Company: pepsin and pancreatin compound.... 39
Maltzyme: digestive test.... 28
Manola 193
Mariani & Co.: Vin Mariani.... 82
Marienbad Tablets 197
Mayfield Medicine Mfg. Co.... 16
McKesson & Robbins: Tartarlithine....229
Mead, Johnson & Co.: Cellasin.... 16
Merrell (Wm. S.) Chemical Co.: bismuth, opium and phenol, 105; pepsin and pancreatin compounds, 38; Peptonic Elixir, 57
Monell's Teething Syrup....229

PAGE.
Mulford (H. K.) Company: bismuth, opium and phenol, 105; hydrastis preparation, 97, 99; pepsin and pancreatin compounds, 37; predigested beef 57
Munyon's Kidney Cure, 189; Munyon's Pile Ointment 198
Neriot Ferment 253
New York Pharmacal Ass'n.: pepsin and pancreatin compound. 36
Noel, Theophilus: Vitæ-Ore 265
Novasperin: test for formaldehyd 40
Nutrient wine of beef peptone: chemical analysis 57
Nutritive liquid peptone: chemical analysis 57
Ohmann-Dumesnil, A. H 246
O'Neill, A. A 191
Orangeine: analysis 4
Orphol: test for formaldehyd 42
Oxychlorine: analysis, 119; report of Council 60
Oxydonor 279
Panase: digestive test, 28; sugar formation 31
Pancreatin and pepsin; see Pepsin and pancreatin.
Pankreon: report of Council 62
Panopepton: chemical examination 57
Pan-peptic Elixir 23
Parke, Davis & Co.: bismuth, opium and phenol, 105; hydrastis preparation, 97, 99; nutritive liquid peptone, 57; pepsin and pancreatin compounds, 37; Taka Diastase 33
Pas-Avena 199
Paxton, E. G 176
Pepsin and pancreatin compounds, 21; report of Council 34
Peptenzyme elixir 23
Pepto-Mangan (Gude) 200
Peptonic elixir: chemical examination 57
Peters (Arthur) & Co.: pepsin and pancreatin compound 38
Phenalgin 4, 212
Pheno-Bromate 218
Phenol Sodique: report of Council 65
Phillips, J. G.: Anedemin 13
Piperazine Water 244
Piso's Consumption Cure 276
Potter Drug and Chemical Corporation: Cuticura Resolvent 160
Predigested beef: chemical examination 57
Pseudomedical periodicals 247
Purgen 220, 245
Pyrenol 222
Ray Chemical Co.: hydrastis preparation 97, 99
Reed and Carnrick: pepsin and pancreatin compound 39
Religious press, advertising in 257
Rex Cough Syrup 229
Rhenamia, Chemische Fabrik: Pankreon 62
Richardson's Life-Preserving Bitters 16
Richie 273
Roberts, C. S.: Hydrocine 167
Roessler & Hasslacher Chemical Co.: sodium perborate 108
Sal-Codeia—Bell 226

PAGE.
Salacetin: analysis 4, 225
Saliodin: analysis 106
Salol: test for formaldehyd 41
Santal Midy 241
Schieffelin & Co.: hydrastis preparation 97
Scrofonol 16
Self-prescribing 247
Shac 248
Sharp & Dohme: bismuth, opium and phenol, 105; hydrastis preparation, 99; pepsin and pancreatin compounds, 37; tonic beef S. & D. 57
Smith, Kline & French: pepsin and pancreatin compound 39
Smith, W. O. 275
Smith's Bile Beans 16
Smithwick, J. W. P. 170
Sodi-forma-sal: test for formaldehyd 40
Sodium perborate: analysis 108
Soothing syrups 227
Stearns (Frederick) & Co., 33; bismuth, opium and phenol, 105; hydrastis preparation, 99; pepsin and pancreatin compounds, 38; Shac 248
Stephens, G. H. 176
Stevenson & Jester Co.: Liquid Peptone 57
Stroschein, J. E.: Uricedin 113
Sulpho-Lythin: report of Council 68
Summers, Mrs. M. 277
Swain's All-Healing Ointment, 16; Swain's Laboratory 16
Taka Diastase: digestive test, 28; sugar formations 31
Tannoform: test for formaldehyd 40
Tannopin: test for formaldehyd 40
Tartarlithine 229
Testimonials 242
Thialion: report of Council 80
Tongaline 174
Tonic Beef S. & D.: chemical examination 57
Trommer's Extract of Malt: digestive test 28
Truax, Greene & Co.: bismuth, opium and phenol, 105; hydrastis preparation 99
Tuberculoids 229
Tuberculozyne 230
Tyree's Antiseptic Powder: report of Council 74
Ur-a-sol: test for formaldehyd 41
Uricedin: analysis 112
Uriseptin: analysis 114
Uron: report of Council 79
Vapo-Cresolene 231
Var's American Kidney Pills 188
Vass Chemical Company: Thialion 80
Vehicles for nauseous drugs 22
Veno's Seaweed Tonic 189
Vera Diastase Essence: digestive test, 28; sugar formation 31

PAGE.
Viavi 233
Vigni: North Dakota analysis 252
Vin Mariani: North Dakota analysis, 251; report of Council... 82
Virgin Oil of Pine 236
Visvit 246
Vitæ-Ore 265
Walker, Will W.: Anasarcin 12
Wampole (H. K.) & Co.: bismuth, opium and phenol 105
Warner (Wm. R.) & Co.: bismuth, opium and phenol, 105; hydrastis preparation, 99; Ingluvin, 42; pepsin and pancreatin compound 38
Warner's Safe Cure 189
Waterbury's Metabolized Cod-Liver Oil 158
Wetmore, Alice A 279
Wheeler's Nerve Vitalizer 237
Williams, W. Bailey 271
Winslow's Soothing Syrup 228, 276
Wyeth (John) & Brother: Carpanturine 1, 57
Yonkerman, Derk P.: Tuberculozyne 230
Zyme-oid: analysis 119