

DISEASES OF THE DIGESTIVE SYSTEM..

The digestive system embraces the teeth, salivary glands, stomach, duodenum, liver, pancreas, and small intestines; and diseases of the digestive system embrace all that pertains to the digestive tract, and more—for the whole alimentary tract is frequently involved when disease invades any portion of the digestive system, including the nervous system that controls the various divisions thereof, and as will be seen in the following divisions named, and the pathological affections treated of under the various headings, the diseases of the digestive system constitute a very important part of the diseases that affect mankind. The treatments, as stipulated under the various headings which follow, become eminently important to those who would be successful as Osteopaths in maintaining a standing among scientific healers.

To learn to differentiate between a normal and an abnormal condition of this system becomes a matter of vast importance when it is understood that, upon the healthful condition of these organs depends the proper digestion of the food eaten, as to its proper conversion thereof into healthy blood; and the importance intensifies when it is known how much depends upon the manufacture of healthy, normal blood, possessing the proper proportion of the elements that constitute the human body. No one will fail to recognize their importance from an Osteopathic standpoint. Under the heading "Diseases of the Respiratory System" will be found the diseases of the digestive organs above the stomach, so that there is no necessity of a repetition here.

DISEASES OF THE STOMACH.

ATONIC DYSPEPSIA.

This is a functional derangement of the stomach, with either a deficient secretion of kind or quality of the gastric juice, characterized by disorders of the functions of digestion and assimilation, owing to the sympathetic nerves affected. The character of the disorder is largely dependent upon the manner of eating and the state of mind during ingestion; the character of the food; also, upon the frequency of eating; continuance of the same diet, or too greasy food. Sedentary habits, worry and fatigue have much to do with the processes of digestion.

As the object of this work is to benefit mankind, we would add that dyspepsia is the result of abuse of the stomach itself. It is not so much the lack of mastication (for some people never take time to do that) as it is a lack of rest of the stomach. It is a muscular organ, and, like all other muscular structures, tires out from overuse. The secretion manufactured by the salivary gland is the effect of sympathetic nerve influence, and an essential ingredient in the process of digestion (an alkaline secretion), and serves its purpose of mixing with the food, moistening it, preparatory to being conveyed (swallowed) into the stomach. Here another kind of secretion is encountered—exclusively an acid secretion. If the former (alkaline) is lacking in quantity, mixed with the food, and does not to some extent at least neutralize the acid, the excess of this acid arrests the process of, or fails to perform digestion and emulcify the food, so as to be in proper condition to pass on to the next division of the digestive apparatus, and increases the stimuli to the acid-secreting nerve filaments, contracture ensues, and the digestive process is at once arrested.

The whole process of digestion is carried on by nerve influence. The sympathetic and spinal nervous systems are the factors involved therein. The solar plexus being made of, or consisting of, the terminal filaments of the two, their actions, combined, carry on all of the processes of this important function—digestion as well as assimilation of the food. An excessive action of the par vagus produces an excess of acid secretion. A deficient action of the splanchnics leaves the excess of acid in the stomach, and a contracture of the walls of the stomach ensues,

and the hydrochloric acid being in excess, solution of the food is at once arrested. This secretion is directly under the supervision of the anterior portion of the solar plexus of nerves that control the manufacture of the hydrochloric acid. The posterior portion of the solar plexus being directly under the supervision of the splanchnic nervous system, and both being essentially concerned in the process of digestion, it is necessary that communication should be kept up in order that the normal functions be performed. This short explanation places the matter properly before the mind of the reader, and gives an idea of how we regard the treatment of disease as a product of incoordination of the nervous system. These two nerve forces represent the positive and the negative forces in the body, and due regard to their proper union furnishes a key to many a difficult pathological condition, as well as to the manner of its solution. The use of artificial solvents—digested alimentation thrust into the stomach—is a sad discredit to the intelligence of chemists and dietary manufacturing proprietors, and still more so to the professedly learned medical fraternity! Whenever it is once known how to unite these two forces, and that done the whole trouble of indigestion ceases, the amount of experimentation will cease, and the manufacture of “prepared foods” will be useless. The larger percentage of disease has its origin at the very threshold of the digestive process—in the stomach.

THE TREATMENT.

As many of the diseases attributed to disordered liver, heart and kidneys really have their origin in the stomach, and disperse as soon as the stomach is relieved, it becomes a matter of no small moment to consider well the true state of the digestive tract. Our advice, then, is to unite the forces that control the secretions of the stomach. Usually the difficulty is found to be a faulty condition of the splanchnic nervous system, and this should receive our first and special attention. Beginning at the first and second dorsal vertebrae (to stimulate the pulmonary plexus, so that the lungs may be actively engaged in their functions), we proceed down the spine on either side, raising one arm at a time, or both if an assistant is present; stretch the arm high and strongly above the head, pressing hard with the fingers of the other hand on either side of the spinal processes along down the spine, embracing the whole region of the splanchnic nervous system, letting the arm be suddenly lowered, each move and each pressure.

It is an important part of the treatment, that the beginning should embrace the fourth dorsal, as there seems to be the beginning of the filaments that control the pyloric end of the stomach, and there is where the peptic glands seem to be the most numerous; and then proceed on down the spine, step by step, as far as the tenth dorsal vertebra. The patient may be in a sitting or a reclining posture (no matter which), after which the patient should lie on the back, and the bowels, liver and stomach should receive attention. The liver should be manipulated—rotated, kneaded, diaphragm stretched; then the gentle vibratory movements made, so as to stimulate each and every part of the alimentary tract. The usual flexion and manipulation of the lower limbs should be made, as well as the treatment of the lower lumbar and sacral plexuses of nerves; and, last of all, the vaso-motor nerve area should receive attention. During this treatment the patient should receive the vibratory manipulations on either side of the spine, between the fourth and tenth dorsal region, pressing the muscles upward and outward at the same time. Then the tapping manipulations on the abdomen upward, beginning at the ileo-cecal fossa, following the course of the colon upward to the hepatic flexure, thence across to the splenic flexure, thence down to the sigmoid flexure—several times. This increases peristalsis of the intestinal tract, and cures constipation. The pressure should be firm and not rapid on the back, in the region of the great splanchnic nervous system—especially at its beginning (the fourth dorsal), between the fourth and fifth.

It will be understood that during the process of digestion there is an increased activity in the circulation of the blood throughout the whole system, as is the case in all general exercise of the body; and that during this activity of the circulation the nervous system has a corresponding increase of labor to perform, directing and selecting, as well as placing, the manufactured products of the chemical changes. The necessity of perfect freedom from pressure will be apparent, therefore the removal of any such impediment as would interfere with its normal action should be especially attended to, from the muscles in the neck, which might interfere with the pneumogastric, splenic or vaso-motor system, all along the line to the terminal filaments of the sympathetic nervous system in the sphincters in the lower outlets of the body. These have to do with capillary circulation, and from the blood in the capillaries are drawn all of the elements that go to

make up the secretions that play such a vital part in the digestive apparatus. This understood, and practiced, accomplishes the purpose intended.

ACUTE GASTRITIS.

An acute and violent inflammation of the mucous, sub-mucous, as well as the muscular coats of the stomach, with loss of tissue, accompanied with great pain, loss of appetite, constant vomiting of blood, streaked or bloody mucus, a weak and collapsed feeling. This state is usually brought on by irritant, corrosive poisons, such as mineral acids, arsenic, corrosive sublimate, carbolic acid, copper and caustic potash. Of course, this condition must receive attention at once, and the proper antidotes should be administered. The removal of as much of the poison as possible by vomiting, encouraged by demulcents. Oil, lard, milk, lime water, or whatever is indicated, should be administered at once. The consequences of such a state are most always grave.

ACUTE GASTRIC CATARRH.

An acute catarrhal inflammation of the mucous membrane of the stomach; feverishness; loss of appetite; nausea; vomiting; painful digestion; irregularity of the bowels; sometimes accompanied with vertigo; loss of appetite; coated tongue; bad taste and breath; lessened gastric secretion; alkaline reaction; viscid mucus; feeling of weight; eructations; urine scanty and containing lithates.

CHRONIC GASTRIC CATARRH — CHRONIC DYSPEPSIA.

This is an indigestion, a loss of appetite, burning, tenderness, gnawing feeling in the stomach, due to thickening of the coats of the stomach, resulting from disturbance in the peptic glands. Dyspepsia is characterized by so many symptoms that it is hard to enumerate a correct classification, but suffice it to say that the characteristics are prominent after ingestion of food—an uneasiness, tenderness, distention after eating. The tongue is usually heavily coated, a peculiarly disgusting, sickening

uneasiness in the epigastrium, attended with constipation, heart-burn, retching, cross, irritable, despondent, melancholia, depression of spirits, hungry, thirsty, nervous, restless, sleepless and everything out of fix. This disease is associated with so many chronic ailments that it demands more than a passing notice. The term dyspepsia "covers a multitude of sins." There is no organ in the body that is subjected to a tithe of the abuse the stomach is, and its complaints are constantly uppermost, and for this reason every nostrum that the inventive genius of all ages could conjure or invent has been dumped into it to cure the dyspepsia. It has not dawned upon the medical profession that teasing and doctoring that organ is just the thing that ought not to be done—never! It is like goading an already exhausted animal, to make it do more than it is able. For conscience' sake, give the poor stomach rest. It surely needs it badly enough. Let us study the character of the forces that control it, and adjust them, then dyspepsia will be readily cured. The cure of diseases of this organ are as readily effected as those of any other organ, if we know how. And the Osteopath should know.

As the indigestion of the food produces the most characteristic, distressing symptoms in this disease, attention to the cause deserves our careful consideration. It may be laid down, as a rule, that when the stomach is healthy the whole man shares the same blessing. Dyspepsia is the bane of this age. The causes are as varied as the material introduced into the stomach, from the "chewing gum" to the "piece between meals," and the stuffing of the infant to stop its crying. The stomach has had every evil influence brought to bear that could be thought of (and not thought of), upon it, outside and inside its walls, and then the possessor would grumble because it could not bear more abuse. It will be remembered that the stomach is a muscular organ, supplied with blood vessels, nerves, glands, lymphatics; that it is subject to the same laws that the rest of the system is; that it is subject to stimulation, depression, exhaustion, inactivity, and needs rest and recuperation the same as other secretory organs; and that to perform its functions the necessary supply must be furnished it. This brings us to a consideration of the nervous system that controls the digestive apparatus. The great sympathetic orders, the motor executes—the work is done. But that something may be done, the material to do it with is a matter of no small consideration in the performance of the functions of this organ, the stomach. The whole alimentary tract is

one continuous tube, supplied along its course with certain recuperative forces that furnish the necessary elements to meet the demands, and the action of the one depends largely upon the other, for the preparation of the food is the all-important desideratum under consideration. The stomach is the important division of the alimentary tract that can not be ignored. There are chemicals generated here that nature especially regards as essential in the formative process of the blood itself. Here is where our attention is directed in the building-up process in all diseases. Here the preparation is made for converting food into blood, and without healthy blood no disease can be cured. Dyspepsia itself must be cured by healthy blood. Every tissue in the body is made from healthy blood, and kept renewed by elements therefrom. The condition of the organ itself, the mental state while eating food, and while it is in the stomach, have everything to do with the digestive functions, and the results are as cause to effect. The nervous system that is said to control the digestive tract ends in the organs themselves. That set which controls the action and secretion of the salivary glands ends in them; that set that controls the manufacture of the gastric secretions ends in the walls of the stomach; and this is true of the liver, the pancreas, the duodenum, of the small intestines, the colon and the rectum. Each and every division is controlled by nerves that emerge from certain localities in the spinal cord. Any deficiency anywhere along the line is directly attributable to some trouble in the nervous system that controls certain organs in these localities. Correct these, and normal action ensues.

The Osteopathic treatment of the stomach will be better understood when it is known that there are two forces to deal with. The one controls the production or generation of acids, and the other the alkaline secretions. The excess of the one or the deficiency of the other (in other words, the supremacy of control of one set of nerves) determines the pathological as well as the physiological condition in the parts, and not only in the stomach, but in the whole body. If the anterior portion of the solar plexus predominates, the acids are in excess, and we have a contracted state of the stomach and the whole internal viscera—a drawn condition, pain, constipation. If the splanchnic nerves predominate, the results are accordingly, and disproportion produces disorder in the whole physical economy. This affords us a key to the situation, the use of which determines the results of treatment. Acids contract, alkalies dissolve and disintegrate.

These two opposites united, neutralize each other. In the human system they so blend as to regulate the processes in the secretory generative economy that physiological harmony results at once. The sympathetic nerves direct and the motor execute. The intelligence that has the prerogative of directing is situated in the calvarium, and a direct connection is made from every terminal filament at its remotest point to the original center, and from there the intelligence is conveyed to the terminal filaments of nerves influenced. Instance: stimulate a bundle of filaments in one or more of the sphincters of the lower outlets of the body, and communication is conveyed through nerve filaments to the origin, thence to the solar plexus, and an irritation of the stomach at once takes place. Whether this influence is conveyed directly to the brain, thence down the pneumogastric filaments terminating in the stomach, is not settled; but, anyway, it gets there. Thus it is through reflex filaments we reach other parts of the body, and the brain substance and nerve centers, and communications are established that set right discrepancies which have existed for a long or short time. It is thus we relieve pain, change pathological conditions to physiological, and cure disease.

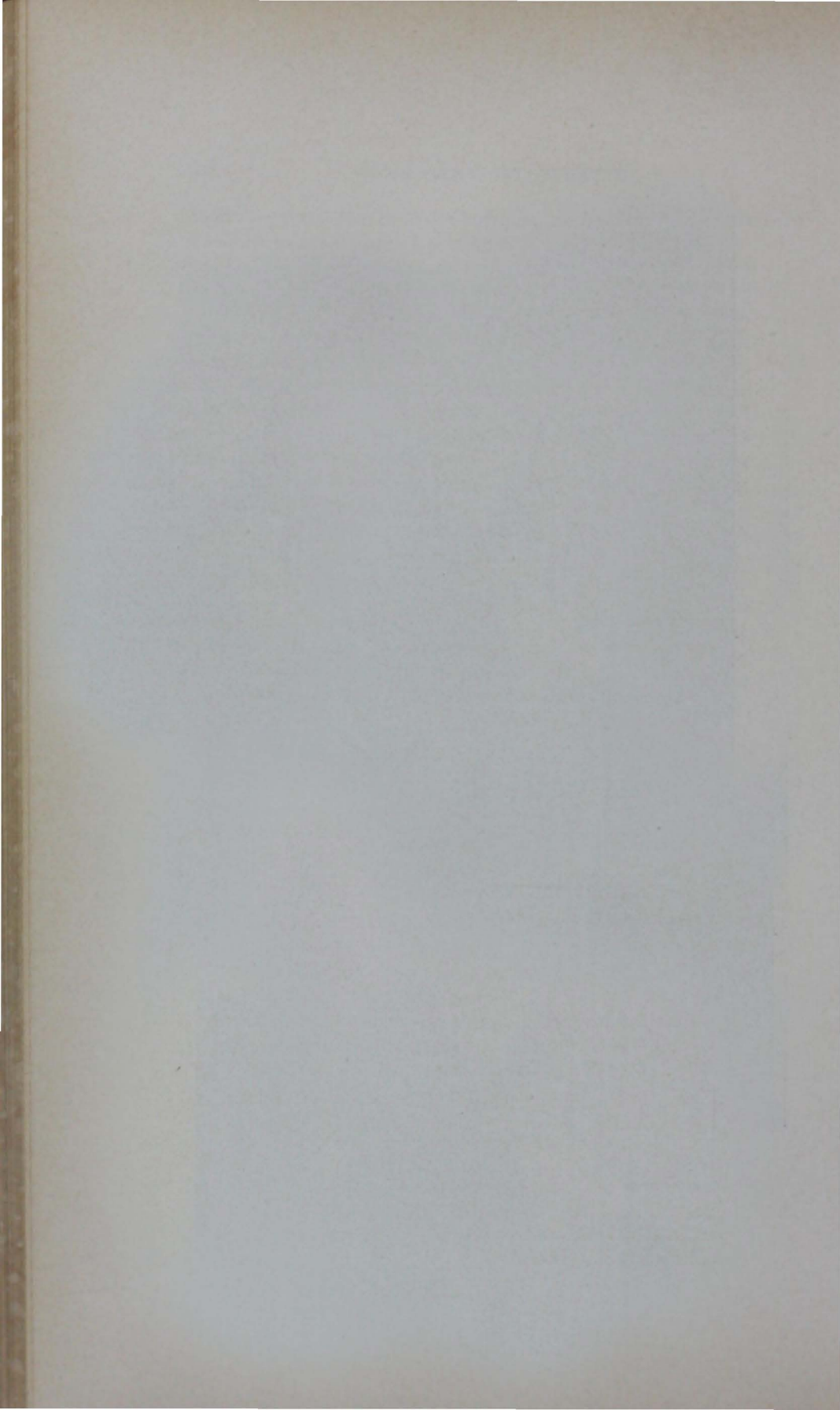
The changes that occur in the stomach are brought about Osteopathically through stimulation of the splanchnics, or the terminal sympathetic filaments, which convey an influence to the brain, thence to the stomach, and thus change an acid condition to an alkaline, or neutralize the excess of acids, and vice versa. Constipation is relieved, colic cured, dyspepsia wanes, digestion established, new blood-making material produced, and health and vigor take the place of former emaciation and disease.

THE TREATMENT.

Begin the treatment of this affection at the neck. Free all of the muscles in all of that region, raise the clavicles, treat the whole spine on both sides, drawing the arms up taut, and use steady, slow motions and pressure along the dorsum in the splanchnic region. The spine should receive thorough treatment all along down its full length (patient being on the side), the muscles being thoroughly moved upward and outward, and especially from the fifth to the tenth dorsal vertebrae (on both sides), then stretch the shoulder up strongly on the right side, pressing hard about the seventh dorsal on the right side, retracting the arm suddenly. Do this three times. Turn patient on back, manipulating lower bowels thoroughly for several minutes; spread the diaphragm, use the rotary movement over the abdominal region,



PLATE LIX.—Throat Treatment for Diphtheria, etc.



kneading the bowels carefully and thoroughly, and lift them up from the iliac fossae as the patient takes a long, deep inhalation. Repeat these moves and treatments every other day, being fifteen to thirty minutes at each seance. Enjoin on the patient strict care in regard to masticating his food thoroughly, leaving off liquids at meals, and if the patient is excessively corpulent, omit his breakfast. Long, deep inhalations of air should be rigidly enforced every two to four hours every day. Leave off all mincing between meals. Let the patient have a glass of water for every ten pounds of his weight during the twenty-four hours. Eat and sleep regularly, and it is well to have patient rest at least an hour after meals, without mental or physical labor. These directions followed will cure and keep cured the greater percentage of stomach troubles denominated dyspepsia.

GASTRIC ULCERS.

Is characterized by constant pain at pit of stomach, tenderness, vomiting of blood, severe and frequent attacks of neuralgia. It may be relieved by equalizing the forces, as mentioned for treatment of dyspepsia.

GASTRIC CANCER.

This affection is considered as an unfavorable one. No medication offers any hope. The indications are to supply hydrochloric acid. The union of the positive and negative forces offers more benefit than medication. The dilute hydrochloric acid given in the water drank, together with the splanchnic nervous treatment, promises more than all other remedies heretofore administered, hence we recommend it persistently.

GASTRIC DILATATION.

SYNONYMS. Gastrectasia; pyloric obstruction; pyloric stenosis.

The abnormal increase in the cavity of the stomach, with the walls either hypertrophied or decreased in thickness, presents a peculiar condition for treatment. Indigestion is the pronounced characteristic symptom, and noisy movements in the abdomen

a common symptom (borborygmus); regurgitation of partly digested food is a common condition. An enlargement is perceptible in the pyloric end of the stomach, and extreme tenderness.

THE TREATMENT.

The principal treatment should be confined to the splanchnic region, and insisting on the non-use of fluids during meals. The equalization of nerve force being established by taking off the pressure from the splanchnic and pneumogastric nerves, restores normal capillary activity to the relaxed muscular fiber, and re-establishes function. The stretching of the abdominal muscles increases their elasticity, and the increased circulation in the parts brings about a physiological condition. Healthy arterial blood, allowed or permitted to circulate, cures all pathological affections. It will be found that the secret of all cures is to let in the life blood—the element that contains the life—into any part diseased. It possesses all the power the mind of man can conceive of to cure disease. This, then, is the proper thing to do. Give the overdistended muscular fibers rest, send in the life-giving fluid, and await results. This is not only theoretically but practically the only thing indicated. It will be found to be the greatest aid to the cure of the above disease to leave off eating any sort of food for several days, giving the stomach absolute rest.

GASTRIC HEMORRHAGE.

SYNONYMS. Hematemesis; gastrorrhagia.

This being only a symptom, it will be proper to ascertain the cause, then treat the patient accordingly. Vicarious menstruation at menstrual periods, ulcer of stomach, cancer, scurvy, purpura, yellow fever, and other affections may cause hemorrhage of the stomach. Find it out, and treat accordingly. The symptoms are a sinking, fainting feeling at pit of stomach, followed by ejection of black coagula or coffee-ground appearance of blood. Sometimes, if the blood passes into the small intestines, it will be voided by stool.

THE TREATMENT.

Water, as hot as the patient can bear to swallow, with the addition of a little salt, will generally arrest the hemorrhage. Absolute rest until recuperation takes place. Remove all pressure from the stomach, the abdominal and chest muscles, and

equalize the circulation of arterial blood in the capillaries by stimulating the vaso-motor area and taking off the pressure from the jugular veins and intercostals in the usual way, lifting the chest walls by the up-drawn arm and dorsal pressure.

GASTRALGIA.

SYNONYMS. Cardialgia; gastrodynia; stomachic colic; spasm of the stomach; neuralgia of the stomach.

The sensory nerves of the stomach seem to be most affected; that is, they report the pressure, or the presence of abnormality pressure. The affection is characterized by violent paroxysms of pain and contractions of the walls of the stomach, and followed by feebleness of the heart's action and symptoms of collapse. It is distinguished from other affections by its paroxysmal character. This affection is usually the result of too much acidity in the stomach itself. That is due to incoordination of the two forces controlled by the splanchnic and pneumogastric nervous systems—the fault of non-union of these two sets of nerves.

THE TREATMENT.

It will be found that the stretching upward of the right arm strongly, and at the same time pressing the fingers of the other hand against the side of the spinal processes (on the right side), and suddenly lowering the arm, will usually be sufficient to relieve the colic instantly. If the patient is so situated that this move is inconvenient to apply, stretch the body backward, over the edge of a table, chair or anything convenient, so as to stretch that part of the body in the region of the splanchnics strongly backward, holding the body in that position a moment or so. This does the work. This will be found to be the most satisfactory treatment ever devised by anybody. Any measure instituted to accomplish the pressure and the bending backward is all that need be done. The expert Osteopath will ever be ready to improvise means to accomplish the ends desired, on any and all occasions. The intelligent application of Osteopathy is what is needed if success be expected, and it generally follows most satisfactorily.

DISEASES OF THE LIVER.

The liver is the largest gland in the body, situated on the right side of the abdominal cavity, just below the diaphragm, and constitutes an appendix to the digestive system. Its functions are peculiar, like all other glands, secreting special constituents. This organ secretes bile and furnishes a storage for glycogen, and at a special period of development the production of blood corpuscles and their destruction, the formation of large quantities of urea, the retention and destruction of certain poisonous substances absorbed from the intestinal tract. It consists of five lobes—the right, left, the lobus spigelii, the lobus quadratus, and the lobus caudatus. These are made up of lobules or acini, and these again of hepatic cells, capillaries, arteries, veins, lymphatics, and biliary channels, each lobule being surrounded by connective tissue. The weight of the liver is between fifty and sixty ounces. It receives its supply of blood from two distinct sources—from the hepatic artery and the portal system; while the blood is returned from it into the vena cava inferior by the hepatic veins. The secretion (the bile) is conveyed from it by the hepatic duct, either directly into the intestine, or, when digestion is going on, into the cystic duct, and thence into the gall bladder, where it accumulates until required. The portal vein, hepatic artery and hepatic duct branch together throughout the liver, while the hepatic veins and their tributaries run by themselves. The liver is made up of small, roundish, oval portions, termed lobules, composed of minute branches of the portal vein, hepatic artery, hepatic duct and hepatic vein, while the interstices are filled by the liver cells. These cells form the glandular or secreting part of the liver. The cell substance contains numerous fatty molecules, and possibly some granules of bile-pigment, as well as a variable amount of glycogen. These cells are held together by a very delicate sustentacular tissue, continuous with the interlobular connective tissue. From these small vessels a dense capillary network is prolonged into the substance of the lobule, and this network is gradually gathering itself up, as it were, into larger vessels, converging to a single vein occupying the center of the lobule, and hence called interlobular. The small interlobular veins discharge their contents into veins called sublobular, while these again by their union form the main branches of the hepatic

veins, which leave the posterior border of the liver, to end, by two or three principal trunks, in the inferior vena cava, just before its passage through the diaphragm. The hepatic artery distributes blood to Glisson's capsule, the walls of the ducts, blood vessels, and other parts of the liver, to rebuild the liver tissue itself especially; while the portal blood, coming from the portal system, undergoes a secondary capillary circulation in the liver, from which the bile is secreted, and, after leaving the secretory cells, joins the venous blood, the product of the hepatic circulation, and the bile enters the hepatic duct and is emptied into the duodenum.

The gall bladder is simply a reservoir to hold bile for future use, for the secretion of bile is constant, while the digestion is periodical. The manner of its entering the cystic duct is peculiar, yet very simple when understood. The orifice of the hepatic duct, through which the bile passes from the liver into the ductus communis choledochus, is narrower than the cystic duct, and seems closed, except when sufficient pressure behind it forces the bile through it into the duodenum, and the bile, finding no exit through it, is forced back up through the cystic duct into the gall bladder. The bile is forced out of the gall bladder by compression of the walls of the gall bladder, produced by the contraction of its coats. The ducts are composed of unstriped muscular tissue, and their contraction is excited by the presence of food in the duodenum, acting by reflex influence, with sufficient force to expel the contents of the ducts and gall bladder. It will be readily seen that perfect order must exist, and freedom from unnatural pressure of these organs must be had in order to produce normal action of this gland. Our very life depends upon the proper circulation of the blood in the liver, for without it no bile would be secreted, and no digestion or new blood would be made as the product of digestion. For a further knowledge of the anatomy and functions of this gland we would refer the reader to works on anatomy and physiology, which treat elaborately thereon.

The salivary, the gastric, the hepatic and the pancreatic secretions all constitute the agencies that promote digestion, and all of these secretions are manufactured through direct action of the sympathetic nervous system. Each particular element in each one of these secretions furnishes a part of the great whole that, without either, would cause imperfect digestion. As all secretions are made from the blood, and the blood is distributed to every organ and tissue in the body through the capillaries, and the capillaries are controlled by the sympathetic nervous system,

the importance of perfect freedom of every part of the body from pressure becomes a matter of necessity. Every discrepancy in the system, every deviation from a normal state, is due to a chemical change in the elements, and as these elements are the product of digestion, and as digestion is the result of nerve force, it becomes apparent that on a disturbance of the nervous system, either by undue pressure or stimulation, influences are started that culminate in the consequences we see from day to day—physiological and pathological. The proper understanding of the nervous system furnishes the key to the workings of the human system for the weal or woe of the human family. The processes of life constitute an interminable circuit, starting in and ending in the mind, directed through the sympathetic nervous system, executed by the motor nervous system. The comprehension of these constitutes limitless power over the human body.

CONGESTION OF THE LIVER.

SYNONYMS. Torpid liver; biliousness.

This is commonly recognized as an abnormal fullness of the vessels of the liver. The enlargement of the organ is due to the accumulation of blood therein, and it is termed active when arterial, and passive when venous. The characteristics are fullness and inactivity, a dull, heavy feeling in the liver itself, accompanied with derangements of digestion, mental torpor, and sometimes slight jaundice. In the active congestion there are more or less heat, habitual constipation, pain in hypochondriac region and under the right shoulder blade, mental depression; the patient is generally pessimistic. The liver is enlarged in all directions, and presses upon other organs in all directions in proportion to the amount of congestion.

The characteristic symptoms are as follows: A general malaise, aching of limbs, feverishness, headache, depression of spirits, the tongue has a yellowish coating on it, a disgust for food; there may be nausea, vomiting, constipation, high-colored urine, a feeling of weight and fullness, with soreness in the hepatic region, with a dull pain extending up into the right shoulder; slight yellowishness of the sclerotic coat of the eye and skin, complexion muddy, and symptoms of gastro-intestinal catarrh are generally present.

The cause is pressure—obstructed circulation. It will be readily understood that pressure on any of the blood vessels lead-

ing to, into, or out of the liver, or undue pressure on the solar plexus of nerves, would result in interference of function, and then congestion must ensue. The results follow as certainly as fate. The pressure is to be especially considered, whether it be on the nerves, blood vessels, lymphatics, ducts or cells. The minute structure of this organ is such that there is no compensation for duties not performed. The organ itself must be restored or the house is divided against itself, and a wreck sooner or later occurs. It can not perform its functions without the right kind of blood, and as it is intimately concerned in blood manufacture, it must not be circumscribed in its functions by environments that interfere therewith. Congestions of surrounding organs are factors generally concerned in the production of disturbances in the functions of this organ, and should receive special attention. Contraction of the intercostal muscles will be found to exist in a large proportion of cases. The abdominal muscles may also be concerned in the same way. Tumors, tight bandages around the body, constant pressure from any cause, have to do with the impediment to the proper circulation. All of the circumstances concerned in each particular case should be duly considered, and the action in the premises controlled thereby.

THE TREATMENT.

The Osteopathic manipulations to remove congestion are surely plain enough.

Our motto in the treatment of the liver is similar to what we claim to be true for all the organs.

Inasmuch as all pathological conditions are due to undue pressure somewhere, in, on, or remotely, that arrests the flow of fluids to and from them, so in diseases of the liver undue pressure or disconnection of nerve force exists. It is evident that the indications point with unerring certainty to the necessity of removing this pressure and set to rights the forces governing the action of the organ.

We have no faith in the "touching-of-a-button-theory" business in the treatment of pathological conditions, for it often happens that mechanical pressure produces such a state of congestion as to positively separate the forces that normally control the diseased organ, and then "to touch a button" would produce no response, and the touch would fail to start the "machinery." The philosophy of the Osteopathic system is to "Remove the Pressure." To know how to do this is to know Osteopathy, and results follow that are seemingly marvelous in many instances.

Whilst we teach that certain nerves control, coordinately, certain parts of the body, we also teach that nerves coming out of any particular foramen are not always all the nerves ending in the anatomically announced tissue or tissues. This indicates that universal freedom of the whole system is essential to freedom of a particular part, for the human system is a cosmos, and all controlled by mind; and this mind is conveyed through tubes called nerves. The various illustrations given in this work, studied, adopted, practiced, constitute the methods used to "Take Off the Pressure" everywhere in the body, and should be so thoroughly understood that a glance at the system in a given pathological condition should suggest the cause of the pathological condition and the means of remedying it. There is no guess-work in the treatment, nor in the probable—yes, almost positive—results, when scientifically applied, as delineated in this work. There are certain so-called centers along the spinal column from which certain nerve filaments emerge through the foramina that surely exercise positive influences upon other parts of the body, and certain special results follow as cause and effect, yet why they do so is the most difficult thing to explain. From these phenomena has been deduced a supposed science, termed Osteopathy, and yet, day by day, marvelous discoveries of results occur from the stimulation of other terminals equally as profound, mysterious and startling. These results are all along the same lines of this same process, and only demonstrate that our researches are rewarded as we advance in the study of this marvelous creature called man. We surely "are wonderfully and fearfully made." The constant application of the study of the coordination of the forces will eventuate in more marvelous revelations than we have yet learned, and put us nearer in harmony with ourselves, and serve to keep us so.

ABSCESS OF THE LIVER.

This is a circumscribed inflammation or parenchymatous degeneration of the hepatic cells, resulting in suppuration, single or double, and recognized by irregular febrile attacks of tenderness and symptoms of deranged gastro-hepatic functions, in which there is in the liver a hyperaemia, a swollen state of the liver, an effusion of lymph, a degeneration of and softening of the hepatic cells, the suppuration beginning in points in the lobules and coalescing; the walls of the abscess consisting of more or

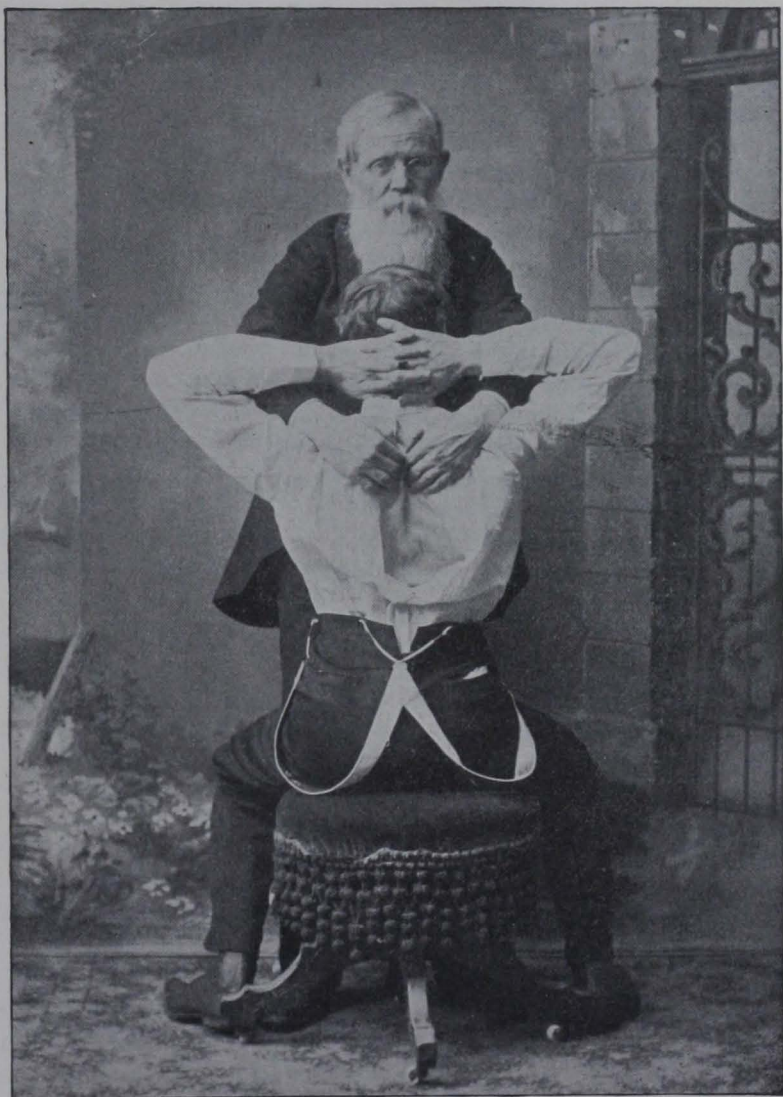


PLATE LX.—Chest and Spinal Cord Extension.

less changed liver structure. These abscesses usually penetrate toward the surface and burst into the peritoneum, intestines, hepatic duct, lungs, gall bladder, stomach, or externally through the abdominal wall or into the pleura, and after pus is discharged cicatrices are formed in the tissues involved.

The symptoms are generally very obscure, simulating intermittent or remittent fevers and disorders of the stomach, with obstinate vomiting, debility, nervous irritability, melancholia, jaundice, constipation, light stools, and resembling typhoid fevers, as it is more or less chronic in its stage of progression to a culmination. This condition may be confounded with hydatids of the liver, but the local pain is usually so characteristic as to prevent such a conclusion. The introduction of a trochar leaves no doubt as to the condition. These abscesses may also be mistaken for a cancer, but as a cancerous condition is characterized by burning sensations, there is no excuse for failing to differentiate.

The prognosis is considered unfavorable in any event, yet recoveries do occur. When suppuration is present it should be let out. The pus is greenish yellow, and, if allowed to remain long, turns to a dark color. The relief is better secured by the use of a trochar and canula, with drainage tube.

ACUTE YELLOW ATROPHY.

This is so similar a disease that it is often mistaken for Abscess of the Liver at the beginning, but instead of an increase in size, it decreases, followed by deep jaundice and profound disturbance of the nervous system, generally terminating in death in a short time. The symptoms are: There is a prodromic period, attended with gastro-intestinal catarrh, coated tongue, yellowish; nausea, vomiting, and tenderness over the epigastrium; headache, rapid pulse, slight fever and jaundice, gradually increasing in intensity, with increasing headache and persistent insomnia, vomiting of blackish, grumous, bloody, "coffee-ground" excreta, tarry stools, ecchymotic patches on the skin. Convulsions ensue, coma, and death.

SCLEROSIS OF THE LIVER.

This affection is generally denominated "Hob-nail Liver," Gin-drinker's Liver. It consists of interstitial inflammation, or inflammation of the intervening connective tissue of the liver,

chronic in its progress, and resulting in induration of the whole organ, characterized by emaciation, gastro-intestinal catarrh, and jaundice. The first stage of this affection consists of a hyperaemia of the connective tissue, which soon develops into brownish red connective tissue elements, and the liver increases in size and density; the cells, being pressed upon, undergo fatty degeneration. The increase in size gives the liver the uneven or nodular appearance. The portal circulation, as well as the hepatic circulation, is interfered with, obstructed, obliterated, function ceases, the peritoneum thickens, adhesions are formed, the whole organ is rendered more or less useless, and if persistent, death soon closes the scene.

The prognosis of this affection may be briefly stated: It terminates in death. The stage is usually about one year.

AMYLOID LIVER.

SYNONYMS. Waxy liver; lardaceous liver; scrofulous liver; albuminous liver.

This is an infiltration into the substance of the liver of albuminoid material resembling starch, hence its name, amyloid. The disease seems to result from a prolonged suppurative process, more especially of the connective tissue, or of bones. The enlargement is generally uniform, and presents a translucent appearance, and has a doughy consistence. The deposits generally begin in the arterioles and capillaries, which are eventually closed by the fatty deposits. There are no peculiar symptoms characteristic of the condition in a systemic sense, differing from other diseases of the liver. The progress may be rapid or slow, but the prognosis is generally unfavorable.

CARCINOMA OF THE LIVER.

SYNONYM. Hepatic cancer.

A peculiar morbid growth, which progressively destroys the hepatic tissue, characterized by indigestion, emaciation, jaundice, ascites and terminating in death. It is a disease of advanced life, and occurs at the age of sixty years or thereabouts; sometimes at forty, or earlier. The differentiation is peculiar, for there are general uneasiness, pain, weight, jaundice, ascites, hemorrhage, feebleness, cold, dry skin, pinched features, dejected, worn expres-

sion of the countenance. The nodules are tender, and the pains are of a shooting, burning character; enlargement of the organ—and this disease always ends in death.

The conditions described present rather a forlorn prospect for relief. The medical profession has relied upon medication for a cure, and, as stated, their conclusions are generally terminated by the patient passing to other climes. Their efforts have been signal failures. It would seem like presumption for an Osteopath to make suggestions. It surely would be were it not that a success is probable in many instances that would be utterly denied by the medical profession. The promotion of tissue changes can only take place from the presence of healthy arterial blood, and as this system offers the only means of sending it to the parts, if the case is taken in time (before a breaking-down of the tissue occurs), the chances are better than from any other agency.

TREATMENT FOR AFFECTIONS OF THE LIVER.

When it is considered that all the conditions enumerated result from capillary congestion, and that this results from obstructed circulation, it will be readily seen that to cure or arrest the progress of disease it is essential to remove the pressure causing the congestion; the tissue changes take place normally at once, and health in the parts is restored. It can also be most clearly seen that medicines have no power to exercise, therefore can not remove the obstructions causing these difficulties. The first thing to be done in these liver troubles is to start the forces that are prevented from acting by the presence of either foreign substances in the capillaries, due to fibrinous precipitation therein, or interference of outflow through the veins, caused by external pressure. These obstructions must be removed, whatever they may be, so that a free inflow of normal arterial blood can be had—so that waste tissue can be gotten rid of. In order to remove the waste it must be dissolved, and that can not be done without contact with the fluids drawn from the blood as it passes through the capillaries; so that a necessity is apparent of promoting the onward flow through the capillaries, that this may be naturally accomplished. If the blood is obstructed in the arterioles by pressure, the remedy is, remove the pressure causing it; and if in the veins beyond the capillaries, remove the pressure there; and if the arrest of the circulation is due to pressure upon

a nerve or nerves distributed to the parts which control the capillary circulation, take off the pressure from it. This done, and kept off, health is the inevitable consequence. Many diseased livers may be cured by this process. Simply the contact of healthy arterial blood tends to soften down the hepatized tissue, and the channels (the lymphatics) carry away the excess, and restoration to a normal condition ensues, the same as is seen in hepatization of lung tissue in the sequelae of pneumonia.

The learned Osteopath, one skilled in manipulations, can not fail to comprehend the necessity of starting at the vaso-motor area and moving all obstructions as found all the way down the neck, chest and body, through the various means illustrated in this work, and demonstrated by actual experience to be the proper course to pursue. The ribs are lifted from their drawn condition by the proper stretching of the muscular fibers, as results from manipulations of arms and lower limbs—including abdominal and dorsal muscles; the liver and abdomen as well, by mild vibratory movements over the liver itself. Care should always be had in ascertaining the condition and character of tissue involved. Too much care can hardly be exercised in the treatment of this organ, for the medical fraternity have had their special attention directed to the liver since they learned that mankind possessed that sort of a commodity, and, as a general thing, accused that organ of being more or less concerned in all other pathological conditions of the human system; hence all medication has been directed toward the liver and the movement of the bowels.

DISEASES OF THE BILIARY PASSAGES.

CATARRHAL JAUNDICE—ICTERUS.

This is a catarrhal condition of the bile ducts, an inflammatory condition of the mucous membrane of the bile ducts and duodenum as well, producing derangement of stomach, yellowness of the skin, itching, mental depression and feverishness, and usually due to eating too frequently or overloading the stomach with food or drink, debauch, pressure from any cause, or defi-

ciency of normal secretion or lack of elementary constituents.

SYMPTOMS. A distressed, painful feeling in the epigastrium, coated tongue, nausea, impaired appetite, looseness of the bowels, perhaps slight feverishness, eyes yellowish, jaundiced conjunctivae and skin assuming a yellowish cast; the stools are light-colored or clay-colored, colicky pains in the bowels, urine dark-colored, heavy and loaded with biliary elements, urates, etc. The surface of the body is generally cold, the heart's action slow, the mind depressed, and a perceptible tenderness on pressure of the epigastrium. The liver is sore to the touch.

THE TREATMENT.

As the liver possesses such important functions in the human economy, it requires more than an ordinary notice, but as this disease is due to arrest of function, we do not need to enter minutely into the anatomical and physiological description of this organ at this time, but will simply delineate the treatment indicated. That there is some arrest of circulation of the fluids can not be questioned. All of the ducts become thickened; an arrest of elimination of elements is apparent, due to arrest of the onward normal flow of the fluids in the substance of the liver itself; the solar plexus fails to receive its nerve influence from the splanchnics, and confusion reigns supreme. To correct this condition stimulate the vaso-motor area, including the pneumogastric; lift all of the pressure off of the neck muscles, raise the clavicles, the chest muscles, stimulate the dorsal region in the usual manner, lifting the arm at the same time. Treat the abdomen by vibratory movements, gently at first, increasing the force gradually; knead the liver and bowels, and treat the lower limbs thoroughly, emptying the venous blood by taking off the pressure around the saphenous veins in both limbs, and move the muscles of the back thoroughly, upward, outward. Give the colon thorough treatment, beginning at the ilio-caecal area. Treatment should be thorough, mild and deep, especially in reference to the liver and abdomen, and should occupy twenty to thirty minutes, at least every other day. Leave off food until the digestive organs are restored to a condition that it can be digested. Use plenty of water at stated and regular intervals, and occasionally flush the bowels, for apparent reasons: that of diluting poisons and precipitated chemical elements—to promote elimination. Give due attention to splanchnics.

BILIARY CALCULI.

This condition is usually characterized by hepatic calculi, gall stones, hepatic colic, caused by concretion lodged in the ducts. These concretions originate in the gall bladder, and are derived from the constituents of the bile itself. Cholesterine is the chief constituent—crystallized precipitate. These stones are found, as a rule, in the gall bladder or cystic duct; sometimes in the liver, though rarely, and in the hepatic duct. These are manifest by being expelled, or an attempt at expulsion, for their passage produces extreme pain, piercing, agonizing, in the region of the gall bladder or ducts, spreading over the abdomen, right chest and shoulder; the muscles of the abdomen become cramped and tender, the pulse becomes small and feeble, the skin cool, cold perspiration stands out all over forehead and body, anxious face, spasmodic rigors, trembling at times, and convulsions are a common accompaniment. These paroxysms continue until the calculi pass through the duct, which may be several days, but when the calculi reach the duodenum, perfect relief ensues suddenly. Restoration rapidly ensues as a rule for that time. Sometimes, however, jaundice follows the paroxysm, and should impaction of the calculi take place, perforation, consequent upon inflammation, ensues, and this is followed by peritonitis, the calculi being discharged by the intestines, stomach, or may be through the abdominal walls.

This affection need not be mistaken for anything else if the proper observation is made. The pains diverge from the hepatic region, accompanied with nausea and vomiting. The actual passage of these calculi may be demonstrated by passing the discharges from the bowels through a sieve. There may be several hundred of these calculi in the gall bladder, and their passage affords no immunity from future formations.

THE TREATMENT.

The Osteopathic manipulations consist of the usual splanchnic and dorsal treatment. The raising of the right arm strongly upward, lifting the ribs off of the liver, and the firm, gentle kneading of the liver and bowels, should be done, preceded first by a proper manipulation of the vaso-motor area. Hot applications to the side and over the hepatic region should be employed to relax all tissue, followed by manipulating in a careful manner the liver itself, and that followed by thorough vibratory pressure over the liver and abdomen. The passage of the gall stones will be

greatly facilitated by these manipulations, and proper treatments should follow until no more formations of stones occur. This is the best prophylactic treatment for these secretions.

DISEASES OF THE KIDNEYS

The normal condition of the secretions of the kidneys is essential to health, and the facilities are so numerous to ascertain the deviation from that state to abnormal, that the doctor has no excuse for not knowing the actual condition of this secretion. The kidneys being the eliminating organs, removing from the blood such ingredients as are not essential to the welfare of the whole body, they should be kept in good working order all the time.

The kidneys are two large glandular organs, situated in the upper and posterior portion of the abdominal cavity, and are concerned in the excretion of the urine. They consist of an outer or cortical substance, and an inner medullary substance. The medullary substance consists of from 8 to 18 pyramids (the malpighii), the apices of which, the papillae, project into the calices of the ureters. The pyramids are striated, and in places send narrow projections into the cortex—the medullary rays, or pyramids of Ferrein. Between the pyramids are extensions from the cortex—the columns of Bertini. The cortex, by the penetration of the medullary rays into it, is divided into the medulla and the labyrinth. The secreting structure of the kidneys consists of long tubes, beginning in an expanded extremity, the capsule of Bowman, which invests a tuft of blood vessels, the glomeruli, and constitutes, together with this, a malpighian body; extending from this is the proximal convoluted tubule, then comes the spiral tubule, then the loop of Henle, consisting of a descending and an ascending limb; then the distal convoluted tubule, which terminates in the collecting tubule. The blood vessels of the kidneys divide into two sets of branches, one supplying the cortex, the other the medulla. The secretion is dependent upon the nerve action controlling the kidney, the healthful condition of the organ itself, as well as the normal condition of the blood vessels carrying the blood to and from it. The secretion is carried on by direct control of the sympathetic nervous system, and the

execution largely depends upon the spinal nervous system, direct connection being made through the renal splanchnic. The solar plexus is also an important factor in the secretory process of this organ.

The Osteopath reaches this organ through a system of manipulations described elsewhere in this book. Pathological conditions in general are corrected by a course of stimulation or desensitization of sympathetic and other nerve terminals, and reflex action is produced. If there is excessive pressure, by any means, upon the vaso-motor area, and continued for some time, an increased action of the kidneys ensues; or if there is undue nervous excitement mentally, there is increase in the flow of the watery secretion, but of lower specific gravity, thus demonstrating to a certainty the nervous influence over the kidneys, as well as their complete action being under nerve influence, as well as the amount of blood distributed to the kidneys and the especial influence over secretion. This nervous influence is largely under the control of the operator, directed especially to the vaso-motor area and along the dorsal region in the vicinity of the tenth, eleventh and twelfth dorsal spines, on either side. The control of outflow is had by treating downward, and excessive outflow by treating upward. These treatments are duly explained elsewhere.

THE URINE AND ITS TESTS.

The normal quantity of this varies from thirty to fifty ounces daily. An increased action of the sweat glands lessens the amount accordingly, and so do the various forms of fevers. Cold weather, on the contrary, other things being equal, increases the quantity secreted. There is usually less passed during the night than in the daytime. The normal color is a light amber, due, it is said, to the presence of urobilin. The color deepens or varies according to circumstances in pathological conditions. There is more or less precipitation in normal urine, after standing in a vessel for a time, owing to the presence of mucus. The normal reaction is slightly acid, owing to the presence of acid phosphate of soda, uric and hippuric acids. After meals it may be neutral or alkaline. The normal specific gravity varies also, from 1.015 to 1.020, always low when an increased quantity is passed, and high when the quantity is diminished. The odor is peculiarly aromatic, and varies according to the food eaten, smelling of garlic or onions after eating these vegetables.

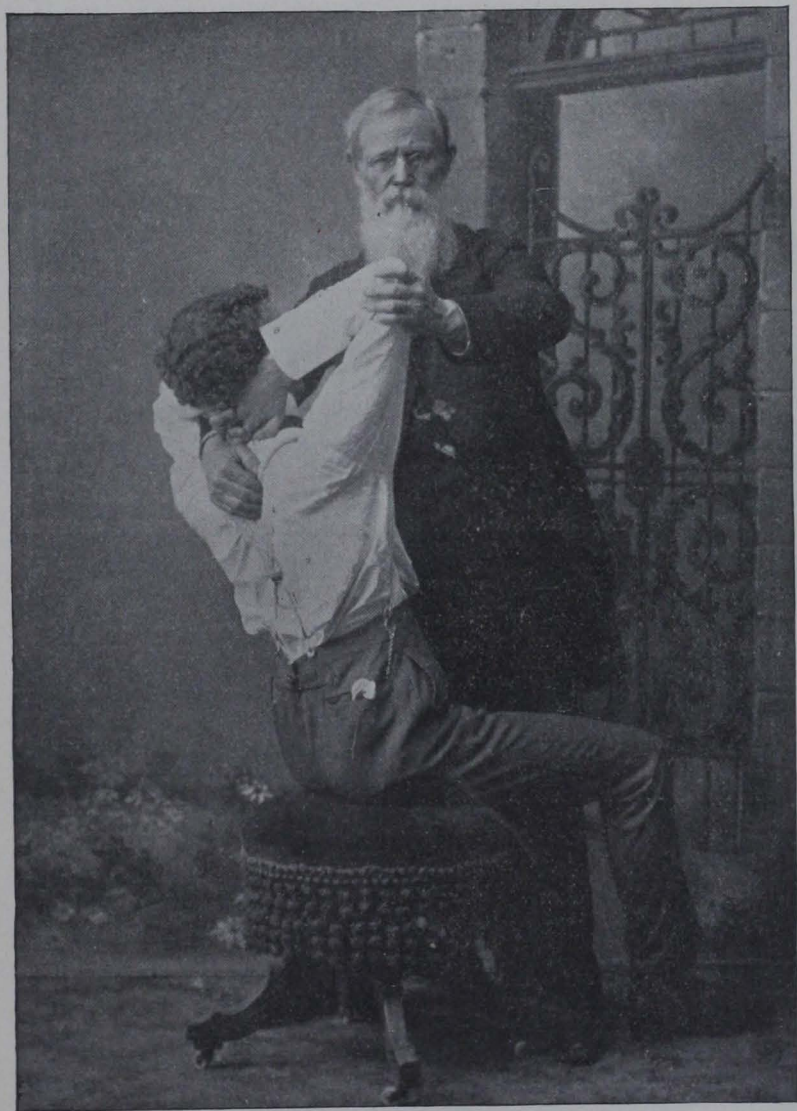
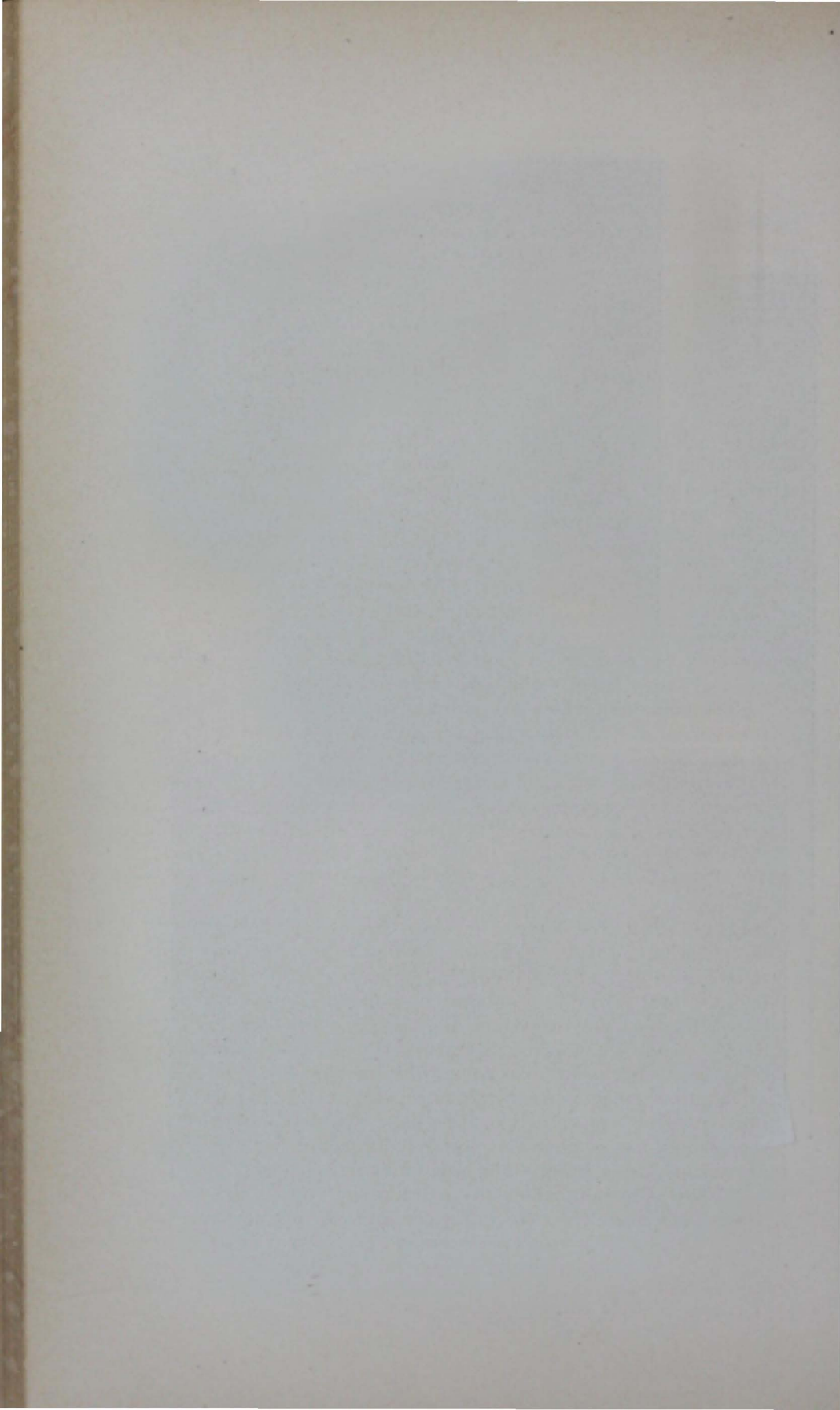


PLATE LXI.—Chest Expansion and Spinal Stimuli.



There are certain organic and inorganic substances held in solution in the urine. These, of course, are drawn from the blood. There pass about three to six hundred grains of urea daily, containing uric acid from 6 to 12 grains; urates of sodium, ammonium, potassium, calcium and magnesium from 9 to 14 grains; and of phosphates of sodium, etc., from 12 to 45 grains, and the chlorides of sodium, etc., from 150 to 240 grains daily.

The following methods of testing the urine are regarded as standard:

I. Quantitative Test for Urea by the Hypobromite of Sodium (Davy Method).—Fill a graduated glass tube one-third full of mercury, and add one-half drachm of the twenty-four hours' urine; then fill the tube evenly full with a saturated solution of hypobromite of sodium, and close it immediately with the thumb; invert the tube and place its open end beneath a saturated solution of chloride of potassium. The mercury flows out and is replaced by the solution of salt; nitrogen gas is disengaged from the urea in the upper part of the tube. Each cubic inch of gas represents 0.645 grain of urea in the half drachm, from which the amount passed in twenty-four hours may be calculated.

Urine containing an excess of urates and uric acid on cooling precipitates them, viz.: "brickdust deposits" in "pot de chambre." Heat dissolves them to a certain extent.

II. Test for Urates and Uric Acid by Nitric Acid.—Nitric acid deprives the soluble neutral urates of their bases, and produces at first a faint, milky precipitate of amorphous acid urates; adding more nitric acid, the still less soluble red crystals of uric acid, resembling cayenne pepper, are deposited. Put a small quantity of nitric acid in a test tube, and pour the urine carefully down the sides of the tube upon it, and a zone of yellowish red uric acid and altered coloring matter will form at their union, and a dense, milky zone of acid urates above this, which, however, dissolve upon agitation. (See also Albumen Test.)

III. Quantitative Test for Uric Acid by Nitric Acid.—To three ounces of the twenty-four hours' urine (after being slightly acidulated, boiled and filtered while hot) add one-tenth as much nitric acid; place in a cool place for twenty-four hours, then collect the deposit of uric acid on a weighed filter, wash it thoroughly, and dry at 212 deg. F. The increased weight represents the uric acid in part excreted, approximately.

IV. Test for the Earthy and Alkaline Phosphates by the Magnesium Fluid.—Heat or liquor potassae increases the

cloudiness caused by earthy calcium and magnesium phosphates. Acetic or nitric acid clears it by dissolving them. To two ounces of urine add one-third as much of the following solution: Take magnesii sulph., ammonii chloridi puri, liquor ammoniae, each one part; aqua destil., eight parts. If the precipitate has a milky, cloudy appearance, the quantity of phosphates is normal, and if creamy, the phosphates are in excess.

V. Test for the Chlorides by Nitrate of Silver.—To a convenient quantity of urine add a small amount of nitric acid, to prevent the formation of the phosphates and other salts of silver; filter this, if cloudy; add to this one drop of a solution of nitrate of silver (1 part to 8), and the precipitate of white, cheesy lumps of chloride of silver denotes that the amount of chlorides are normal; if, however, only a faint milkiness occurs, the chlorides are diminished.

VI. Test for Mucus by Acetic Acid and Liquor Iodi. Comp.—Mucus alone is not visible, but causes cloudiness, from having entangled mucus or pus corpuscles, epithelium, granules of sodium urate, crystals of oxalate of lime, and uric acid in various amounts. Add to the urine a little acetic acid, or in addition a few drops of liquor iodi. comp., when threads and bands of mucin are made visible. The addition of nitric acid dissolves them.

VII. Test for Albumen by Heat and Nitric Acid.—Slightly acidulate the urine, if necessary, by addition of nitric or acetic acid, and boil. This causes a white deposit of coagulated albumen, which is not dissolved by nitric acid, unless the acid is in excess. Nitric acid causes a white deposit of coagulated albumen, which is dissolved if a large excess of acid be added. A delicate test is to put the nitric acid in the tube first, and then gradually pour the urine down the side of the tube upon it, when a white zone or ring of coagulated albumen appears. (See Tests III., IV., XI., XIII.)

VIII. Test for Albumen by Picric Acid (Saturated, Watery Solution).—Pour a quantity of urine into a test tube, and add the picric acid solution, drop by drop, and, as it passes through the urine it is followed by an opaque white cloud if albumen be present. The test is very striking and beautiful. If cloudiness appear some time after, instead of at the time, it shows nothing. This test will not detect as small an amount of albumen as heat or nitric acid.

IX. Nitric-Magnesian Test for Albumen.—The fluid is prepared by mixing one part of pure nitric acid with five parts of a

saturated solution of the sulphate of magnesium, and filtering. One drachm of the reagent is poured into a perfectly clean test-tube; the urine should be allowed to trickle slowly down upon the fluid; if albumen be present in an amount as small as one one-hundredth of one per cent., this test will show a compact, dense, white layer. This is one of the best and most reliable tests for albumen.

X. Quantitative Test for Albumen (Approximately).—Add a few drops of nitric acid to a proportion of the urine, and boil it; set this away for twenty-four hours, and the proportionate depth of the resulting deposit is the comparative indication, viz.: one-fourth, one-half, etc. For minute traces of albumen, Millard's fluid may be used. It is a delicate test, and requires care. The fluid consists of a glacial carbolic acid (95 per cent.), two drachms; pure acetic acid, seven drachms; liquor potassae, two ounces.

XI. Test for Blood by Heat and Nitric Acid.—Heat or nitric acid causes deposit of albumen, with the coloring matter changed to a dirty brown.

XII. Test for Blood by Heat and Caustic Potash (Heller's).—Heat the urine and add the caustic of potash, and heat again. The phosphates are thus precipitated, taking with them the coloring matter of the blood, which imparts a dirty, yellowish red color to the sediment viewed by reflected light, and when seen by transparent light gives a splendid blood-red color. Neither the coloring matter of the blood nor that of the bile is precipitated with the phosphates, so that coloration of urine which shows this reaction can not be ascribed to the presence of the latter pigments. When the quantity of blood in the urine is very large it is of a dark-brownish red, and after standing forms a coagulum at the bottom of the vessel. Caution.—Heat or nitric acid causes coagulation of the albumen in pus.

XIII. Test for Pus by Liquor Potassae.—Add to the urine an equal volume of liquor potassae (or preferably to its deposit from standing), and when well mixed a viscid, gelatinous or fluid mass is formed, which pours like the white of an egg or jelly.

XIV. Test for Bile by "Fuming" or Red Nitric Acid.—Allow a specimen of urine and a few drops of "red fuming" nitric acid to gradually intermingle on a porcelain dish, and a "play of colors," green, blue, violet, red and yellow, or brown, occurs if biliary coloring matter be present.

XV. Test for Bile Pigment by Pure Hydrochloric Acid

(Heller's).—Put into a test tube about 1.6 fluid drachm of pure hydrochloric acid, and add to it, drop by drop, just sufficient urine to distinctly color it. The two are mixed. Then drop down the sides of the test tube pure nitric acid, which will underlie the mixture of hydrochloric acid and urine. At the point of contact between the mixture and the colorless nitric acid a handsome "play of colors" appears. If the underlying nitric acid is now stirred with a glass rod, the set of colors which were superimposed upon one another will appear alongside of each other in the entire mixture, and should be studied by transmitted light. If the hydrochloric acid, on addition of the biliary urine, is colored reddish yellow, the coloring matter is bilirubin; if it is colored green, it is biliverdin.

XVI. Test for Sugar by Liquor Potassae and Heat (Moore's).—Add to the urine half its volume of liquor potassae. (Caution.—This may give a white, flaky precipitate of the earthy phosphates, which should be removed by filtering.) Now boil. This causes, first, a yellowish-brown color, becoming darker if much sugar is present, due to glucic, and finally to melassic acid.

XVII. Test for Sugar by Subnitrate of Bismuth, Liquor Potassae and Heat.—Add to the urine half its volume of liquor potassae, and then a little bismuth subnitrate, shake and thoroughly boil. The presence of sugar reduces the salt, and black metallic bismuth is deposited; or, if but little sugar, a gray deposit occurs. (Caution.—Albumen must be absent.)

XVIII. Test for Sugar by a Solution of Cupric Sulphate, Liquor Potassae and Heat (Tromer's).—Add to the urine a few drops of a solution of cupric sulphate, and then its own volume of liquor potassae. (Caution.—On first addition a light greenish precipitate occurs, which, on further addition of the reagent, if sugar or certain other organic matters are dissolved, becomes a transparent blue liquid.) Now boil, and a yellowish precipitate of hydrated cupric suboxide, occurring at once, denotes the presence of sugar. (Caution.—Albumen must be absent.)

XIX. Quantitative Test for Sugar by Pavy's Solution: To-wit, Take cupric sulphate, gr. 310; neutral potassic tartrate, gr. 640; caustic potash, gr. 1,280; distilled water, fl. oz. 20 (keep corked).—Take of Pavy's Solution, recently prepared, 200 minims or a multiple of this quantity, and boil in a porcelain dish; while boiling, add minim by minim, from a measured portion of the twenty-four hours' urine, and it gives a yellowish precipitate of hydrated cupric suboxide, if sugar be present. Note carefully

the gradual disappearance of the blue color, and when completed (best determined by looking through the margin of the fluid against the white porcelain dish), from the amount of urine used, determine the amount of sugar passed daily, the quantity of urine containing one grain of sugar being just sufficient to reduce the 200 minims of the cupric solution.

XX. Quantitative Test for Sugar by Fermentation and Specific Gravity.—Take two measured specimens from the twenty-four hours' urine, and to one add a little yeast. Place each specimen in a temperature of 75 deg. to 80 deg. F.; in twenty-four hours, fermentation having destroyed the sugar in the one containing the yeast, the difference in the specific gravity of the two specimens expresses the number of grains each ounce of the urine contained, approximately.

XXI. Whitney's Reagent (a solution of ammonia-cupric sulphate)—Volumetric Test Solution for Glucose, from the Laboratory of Lewis Chemical Company, New York.—This is the most convenient preparation, as well as a most reliable test for sugar. Full directions on each package. Enough for thirty-five tests for \$1.00, with test-tube pipe and all in a compact form. Secure this by all means. We have tried it.

CONGESTION OF THE KIDNEYS.

This means an increased amount of blood in the vessels of the kidneys; when arterial, it is called active congestion; when venous, it is called passive congestion, and is characterized by pain, frequent desire for urination, scanty, high colored, containing albumen or blood. The kidneys are generally enlarged, increased in weight and redness, showing points of vascularity, corresponding to the malpighian corpuscles or bodies, and sometimes an ecchymosed condition. A catarrhal condition of the ducts are usually common, shedding their epithelium.

The causes are generally attributed to "taking cold," or from passing some irritating substance from the kidney, such as turpentine, copaiba, cantharides, nitrate of silver, carbolic acid, and even chlorate of potash. This occurs also during eruptive fevers, continued fevers, or injuries of the kidneys—traumatic. If traumatic or mechanical, and continues for some time, there is an increase of connective tissue, and consequent induration, when contraction results, and is generally followed by a disease known as "Bright's" Disease of the Kidneys.

The active variety is characterized by pain in the kidneys, and over and around, and usually in, the upper lumbar region, and following down the ureters into the bladder, producing irritability of the bladder, pain in the genitalia, a constant pressing desire to urinate, but not generally pain during act of urination. The urine is high colored, and occasionally bloody, with fibrin, casts and albumen. Constitutional symptoms are, headache, slight nausea, sometimes vomiting, and a general feeling of uneasiness and discomfort. If not arrested, inflammation ensues, with its consequences. The passive form is usually accompanied with lung or heart trouble, although it may be masked, which may be followed by a dropsical condition; scanty, high colored urine, with more or less albumen therein.

THE TREATMENT.

The early recognition of either of the above conditions, with the proper treatment, results in better satisfaction as to consequences than when discovered after the tissues are broken down. The renal splanchnic, influenced by manipulations at the twelfth dorsal area, is the starting point for effective results of Osteopathic treatment. It must not be forgotten that all sources of irritation should be looked after. All sorts of stimulants should be withdrawn, medication given up, and complete reliance placed on natural agencies to properly adjust the system to itself. Instead of taxation of the digestive system, it should be sparingly indulged, and due regard had to pure water. The use of the popular springs' water for kidney troubles need not be considered, although may be used if desired by patient, yet there is nothing better than clear, pure water in any condition of the system, as it holds the elements in solution, and constitutes about seventy per cent. of the fluids of the body. A free use of it will not be amiss.

The patient should be in a recumbent position, so that access may be had to the back, and the dorsal muscles should be so manipulated as to remove all undue contractility. The lumbar area deserves special attention, for in the region of the twelfth dorsal we reach terminal filaments that communicate forces to the kidneys. The pressure should be firm, steady, upward, and outward, and embracing all of the lumbar area, increased by lifting the limbs and pressing strongly on the sides of the lumbar spines with thumb and fingers of one hand while raising the limbs, as directed elsewhere. The patient lying on either side, this treatment may be made by pulling one limb at a time backward, and

at the same time pressing against the spine in the lumbar region, letting the pressure be lowered about an inch each pull back of the limb. These movements should be slowly done. The kneading and the vibratory movements will be applicable in this affection. Due regard to the general circulation, and means to promote it, should not be neglected. In the chronic form, where albumen is seen in the urine, due regard should be had to freeing the venous circulation in the lower extremities. Where there is hemorrhage, it will be excellent practice to restrain the amount of pressure of blood in the kidneys by cording the lower limb, on either side, tight enough to prevent the return of the venous blood, for half an hour or so every day. Leave the cord on until the whole limb is filled with blood, and it looks dark and tight, then suddenly remove the cord and manipulate the limb upwards until the natural color returns. This relieves pressure of blood in the kidneys, promotes aeration of the blood in the surface, and gives other organs rest. This is called the hemaspasia process of cure. Many chronic and acute affections are relieved thereby, when properly applied. Rheumatism, epilepsy and paralysis have been successfully cured thereby. It is a means of "flushing" capillaries and forcing onward the obstructed flow of blood and other fluids, when all other means had failed. It is well to have plenty of arrows in your quiver when enemies are present. The cording of the arms successively may also be resorted to with equally satisfactory results. The atrophied condition of limbs is greatly benefited by the use of hemaspasia.

Study the character of the case, the conditions, necessities, kind of treatment needed in any given case, and utilize it for the benefit of the afflicted. It is the business of the physician to cure his patient, if possible, and he is not discharging his duty in ignoring any means necessary to the cure of the case, that another doctor might have used and succeeded. What "might have been done" comes too late, when death shall have closed the avenues to the soul. The manipulations alluded to will generally be sufficient to restore to health the affections of the kidneys, if resorted to in time, and many a case has been restored when all other means have been tried and failed to relieve. Osteopathy is a wonderful means of restoration in such cases.

ACUTE PARENCHYMATOUS NEPHRITIS.

SYNONYM. Bright's Disease.

This is an acute inflammation of the uriniferous tubes, characterized by scanty, high colored urine, usually smoky colored, attended with more or less fever, perhaps dropsy, a constant nervous phenomenon, resulting from uraemic poisoning of the blood.

The pathological conditions are: engorged, swollen, more or less vascular condition of the kidneys, with red color of the organ itself, and in the chronic stage remains red, large, especially the cortex; the tubules are engorged and filled with epithelium, blood corpuscles, and fibrin. The capsule becomes easily detached, and is more opaque than normal.

The symptoms are a gradually developing dropsical condition, anaemia, dyspnœa, weakness, which, however, usually begins suddenly. There are generally fever, nausea, and violent and persistent vomiting, dull pain over and in the kidneys, following the ureters, with frequent desire to urinate; diarrhoea, skin harsh and dry, pulse quick, tense and full. Very soon dropsy appears, the eyelids and face become puffy, swollen, and a general oedema of the extremities ensues, and, if following scarlatina, there are from the start great pallor and general debility. The uraemic symptoms may develop any time during the attack. The urine is of high specific gravity, and looks like the washings of beef. Albumen is present in large quantities, and the microscope reveals casts of the uriniferous tubules, blood corpuscles, uric acid, urates, and oxalate crystals, and epithelium. The duration is usually about four weeks.

The complications may be pericarditis, pleuritis, peritonitis, pneumonitis, uraemia, retention and decomposition of the urea in the blood. It affects both kidneys, whereas acute nephritis may only affect one. The history of the disease reveals the nature of it, and distinguishes it from that of albuminuria.

The prognosis is usually favorable. The patient should be enjoined from exercise, taking absolute rest, and abstaining from food or stimulants. Water should constitute the only drink used.

THE TREATMENT.

Manipulations from the occiput to the coccyx are needed once a day, especially in the lower dorsal and the lumbar area, using slow, steady pressure and movements, as well as move-



PLATE LXII.—To Stretch Chest Muscles and Cord.

ment of muscles upward and outward, taking off the pressure from heart and lungs, then using vibratory manipulations over loin area for several minutes at each treatment. Bending the spine strongly backward while lying on the side, using fingers as fulcrums and limb as lever, treat upward from sacro-lumbar junction. A mild general treatment should be made at least every day in acute attacks of this affection. The bathing in warm water, wrapping patient in a blanket, should receive daily attention in this affection. Put all the work on the skin and lungs possible. The rest of the kidneys is essential, therefore take off the pressure. The renal splanchnic is to be suddenly shocked each treatment, as shown elsewhere in plate. The patient should have his mind as much as possible removed from his condition. The dread of Bright's Disease of the Kidneys is not to be thought of, if avoidable.

PARENCHYMATOUS NEPHRITIS.

SYNONYMS. Chronic Bright's disease of the kidneys; croupous nephritis; chronic tubal nephritis; chronic albuminuria; the large, white kidney.

This disease is due to inflammation of the cortical and tubular structure of the kidneys, and is characterized by albuminous urine, dropsy and increasing anaemic attacks and acute uraemia. It rarely occurs after forty.

PATHOLOGICAL ANATOMY. A large white, or yellowish smooth white kidney, usually twice its normal size, and the capsule nowhere adherent to the organ. No appreciable alteration in the medullary substance, the color being normal. The convoluted tubes are irregularly dilated and thickened, and filled with broken-down granulated epithelium and fibrinous casts, and in pronounced cases there is fatty degeneration of the tubular epithelium, a migration and multiplication of fatty transformations, the product of the increased pressure of the veins, especially the fluid that exudes therefrom.

SYMPTOMS. It comes on slowly, and is seldom recognized until the dropsical appearance sets in. This is first noticed under the eyes and in the face, and extends all over the body, producing difficulty of breathing, due to accumulation of water in the chest. The patient becomes pale, debilitated; cardiac palpitation, headache, vertigo, difficult or defective vision; urine scanty, high-

colored, albuminous, showing under the microscope tube casts and granular epithelium; fatty degeneration occurs, fatty tube casts and oil globules increase. Irritable bladder is a very common accompaniment, and constant. The retinal changes are peculiarly characteristic. Many cases are easily diagnosticated by the ophthalmoscope. The changes include the serous swelling of the disc and surrounding retina, hemorrhagic extravasations, dirty, white splotches, representing fatty degeneration, and dilatation of the veins and capillaries, with fatty degeneration and sometimes hyaline thickening of their walls.

The course of the disease is not alike progressively downward, for there will be periods of apparent recoveries, when no complaint will be made, periods of remission, following very severe attacks. It is a most treacherous affection, for when the patient and friends have the most buoyant hope of recovery, all of a sudden there is an acute uraemia, which results fatally in a short time. The ordinary treatment has for its object the checking of the waste of albumen by the use of internal medications, constantly fighting effects, leaving the causes untouched, to undermine the vital forces. This almost universally fails to ameliorate or to cure a single case.

THE TREATMENT.

It is most surely a nervous affection, originating in the medulla oblongata, due to pressure at the origin of the renal splanchnic, which emerges from the twelfth dorsal vertebra, but having its origin in the medulla. Reflex influences only cure this congestion, and the effects cease. Neither astringents, diuretics, nor diaphoretics do the work. Opiates arrest tissue change, and are therefore injurious. Give the kidneys rest. Take off the pressure and send in healthy arterial blood. This is the only remedy.

INTERSTITIAL NEPHRITIS.

SYNONYMS. Sclerosis of the kidneys; contracted kidneys; small, red kidney; gouty kidney.

This is a chronic process, resulting ultimately in a shrunken kidney, in which there has been extensive destruction of the tubular substance and overgrowth of intertubular connective tissue. It is characterized by frequent voiding of large amounts of pale, albuminous urine of low specific gravity, and disorders of

the gastro-intestinal, as well as the nervous systems, with a strong tendency to cardiac hypertrophy and changes in the vessels. There are cases, however, in which albumen is never found in the urine. It is a disease of middle life, coming on from forty to sixty years of age.

CAUSES. This affection is usually the result of long-continued worry and anxiety. Uric acid in the blood is most generally the prime cause, and this is due to capillary congestion and venous obstruction to the return circulation. Alcoholic beverages and the use of drugs and medicines doubtless contribute their influence to its production, and are largely responsible for the large increase of this affection. The most common of these agents are salicylic acid and kindred drugs.

PATHOLOGICAL ANATOMY. A reduction in size of the kidney, the capsule becoming thickened, opaque and adherent. The surface of the kidney becomes granular, with cysts of various sizes, transparent in color, scattered irregularly over the surface. The tissue becomes tough, shown on section to be resistant; the cortical substance is thin, caused from atrophy, presenting only a line or two in thickness, while the connective tissue is greatly thickened, compressing the tubules into mere threads, and the glomeruli are grouped together in bunches, due to the wasting of intermediate tubes. The color varies from a darkish brown to a yellowish gray, according to the amount of blood in the organ. The left side of the heart is generally affected, hypertrophied, and there is generally a hypertrophied condition of the muscular walls of the arterioles throughout the body, which sooner or later undergo fatty degeneration. This occurs to a greater or less extent in every tissue in the body, and sometimes followed by atrophy, as is a common thing observable in the retinal tissue—a sclerosis in the nerve-fiber layer, which is commonly denominated retinitis albuminuria. It is also stated that “ganglionic centers” undergo fatty degeneration and atrophy.

SYMPTOMS. It is insidious in its approach, there being no special characteristic, early indicatory symptoms whereby it can be certainly diagnosed. Cardiac troubles and frequent passages of urine of a pale color should be looked upon as suspicious indications of approaching trouble in the kidneys. Albumen may or may not be present at all times, but there are generally epithelial cells and hyaline casts.

No dropsy occurs, except a slight puffiness under the eyes, oedema of conjunctivae, and disorders of vision, with forcible

cardiac action and high arterial tension. Attacks of vertigo, headache, disordered vision, epistaxis and dyspeptic conditions, with progressive anaemia, persistent dyspepsia, occasional vomiting, regardless of food; stupor, drowsiness, violent itching of the skin, tremors, convulsions, epileptic seizures or apoplectic attacks; the body weight declines, the skin becomes dry and scurfy, the strength fails, shortness of breath ensues, and the patient dies of uraemia.

COMPLICATIONS. Bronchitis; pneumonitis; pleuritis; pericarditis; cardiac hypertrophy.

This disease of the kidneys is usually a protracted one, and as it becomes more advanced there are added cardiac distress, dyspnoea, palpitation and reduplication of the first sound. Dimness of vision is a characteristic symptom, being the first symptom recognized generally by the ophthalmoscope. Hemorrhages into the retina are not infrequent, hence sudden blindness. Auditory disturbances also occur—ringing in the ears, dizziness, and more or less deafness.

PROGNOSIS. Extremely unfavorable.

THE TREATMENT.

Interstitial nephritis is most likely to be confounded with parenchymatous nephritis. The difference between the two conditions, pathologically, does not necessitate a difference in the treatment Osteopathically, as the attention is not to be directed so much to the changes in the structure, as described, as in the character of the secretions, and even they do not call for any material change in the treatment, as all treatment should be directed to the removal of the pressure, which results in the peculiar changes in the secretions, depending upon the structure involved.

The operator should insist upon mental quietude, and endeavor to promote normal circulation of all the fluids in the body, remembering that chemical changes take place in the various tissues of the body according to the nature and peculiarity of the particular tissue involved; and, as the healthfulness of the structure depends upon the character of the elements in the arterial blood, due regard should be had not only to keeping the blood healthy, but to keeping all the channels free through which said fluid passes. To give drugs with a view to changing the character of the tissue through which they pass, as an ingredient of the blood, is to presume more than is possible, and hence the for-

lorn hope that patients manifest when informed they have Bright's disease.

The only thing that can be done is to remove the obstructions to the circulation of all of the fluids in all parts of the body. Begin at the neck, free the venous system there, take off the pressure from the nerves involved, then see to it that the chest is free from all pressure on the breathing apparatus (the lungs); then regulate the action of the liver, bowels, and see to it that the skin is performing its natural functions; and take off the pressure from the nerves that especially control the kidneys. See to it that care and anxiety are removed from your patient. Keep him quiet and free from anxiety and worry. Coordinate the nerves forces—take off the pressure everywhere.

AMYLOID KIDNEY.

SYNONYMS. Waxy kidney; lardaceous kidney.

These peculiar conditions and names applied to diseased conditions of this organ seem more or less confusing, yet each pathological condition has its peculiar characteristics, this one being an infiltration into, or a degeneration of, the very structure of the blood vessels, in the connective tissue, of which the degenerative process results, first, in an increase in size, then an atrophied condition ensues; the deposits of amyloid substance take place along the renal vessels, so that on section it presents a homogeneous mass of a lardaceous appearance; then atrophy takes place. All these changes are due to pressure.

Many complications are liable to be associated with this disease, but the prominent perceptible changes take place in all of the rest of the system. The interference of the functions of this organ is always attended with more or less grave consequences.

The characteristic symptoms are a general wasting away of the whole system, oedema of the lower extremities, ascites, with an increased flow of pale, watery urine of low specific gravity, most generally containing albumen and hyaline casts, these being transparent.

The complications are discernible, as each particular pathological condition shows what structure is involved by the condition of the urine itself generally. There is a liability of an excessive, persistent diarrhea of a watery character, due to the changes in the intestinal canal. There is, almost always, in this disease,

associated with it, some suppurative disease. The differentiation is made by the history of the case and the peculiar characteristics of symptoms presented in the various structures involved.

These diagnostic symptoms determine the prognosis largely, for when the system presents such a degenerative condition as that mentioned, results are only a question of time. Structural changes in any secreting or excretory organ can only be regarded as of a very grave character. The importance of early detection of the condition, and the proper treatment instituted to restore to a healthful one, is of the first consideration. The trouble, we believe, is due to imperfect digestion of carbonaceous material, due to deficiency of pancreatic secretion, as well as undue and continuous pressure on the venous system in the kidney or some vessel carrying the blood from the organ itself.

THE TREATMENT.

The only indication in this case is to remove the obstacle, and to supply the system with the elements thus destroyed, so as to restore the equilibrium of forces, due to disturbance of, or deficiency of, the molecules. This can do no good without a proper restoration of the normal circulation of all of the fluids in the body, through their natural channels, which is to be effected by repeatedly removing the pressure and furnishing proper food.

PYELITIS—SUPPURATIVE NEPHRITIS.

This is a suppurative inflammatory condition of the pelvis of the kidney, due to a catarrhal condition, which is a result of obstruction of capillary stasis of blood. There are lumbar pains, irritability of the kidneys and bladder, the urine alkaline, or neutral in reaction, milky in appearance, and if pus has formed, fever is present and exhaustion rapidly ensues, and pus will be found in the secretion voided.

Obstruction of the ureters by renal calculi; pressure from a tumor or the prolonged use of the bromides tend to produce this condition. It may result from rheumatism or as a sequela of infectious diseases. The pustular condition is due to the increase of the alkaline constituents of the blood, due to disturbance by pressure or otherwise, of the pneumogastric division of the nervous system. The lack of equalization of forces is the cause of these disturbances in the connective tissue involved.

THE TREATMENT.

The rational method of treatment is found only in the restoration of coordination of these forces. To lay down any specific course of manipulations would not be proper, for treatment does not consist so much in the manipulations of certain parts as it does in how these are made. Routinism is the bane of all treatment in all schools—automatism. To back down and refuse to treat a case simply because some one has said "there is no cure in Osteopathy for it," shows the deficiency of mentality or practical application necessary to use the science, or a concession that it is not adequate to the performance of the object assigned. If there is no cure for a thing, why say anything about it? If all diseased structure is due to obstructed circulation, how to take off the pressure seems to be the *sine qua non*. Hence the thing to do is to devise means to take off the pressure. These pathological conditions would not exist if the physician understood the methods used by Osteopaths, so as to remedy the trouble before the degenerative processes had set in and produced structural changes that make reparation impossible. There are, however, many conditions pronounced hopeless by the medical side of the profession that yield to this system favorably.

ACUTE URÆMIA.

SYNONYMS. Uraemic poisoning; uraemic intoxication; uraemic coma; uraemic convulsions.

DEFINITION. A group of nervous phenomena, which occasionally develop during the course of acute or chronic Bright's disease, and other maladies, the result of the retention or accumulation in the blood of an excrementitious material, supposed to be urea, the flow of urine being either normal, lessened, or increased.

CAUSES. Suppression of urine, from acute or chronic Bright's disease, probably more frequent in chronic parenchymatous nephritis; cystic, tubular, or cancerous kidney; the puerperal state; operations on the uterus, bladder, urethra, or rectum.

SYMPTOMS. Uraemic intoxication is the result of the failure of the kidneys to perform their normal function of eliminating some one of all of the poisonous elements of the urine. The toxæmia may develop suddenly, by a convulsive seizure followed by coma, or slowly and gradually. Usually the attack is preceded

by a decrease in the urinary secretion and slight or marked oedema in various parts of the body; although it must be borne in mind that in rare instances, during, or immediately prior to, the appearance of the uraemic phenomena, the normal urinary flow has been largely exceeded. The acute outbreak may manifest itself in a variety of ways.

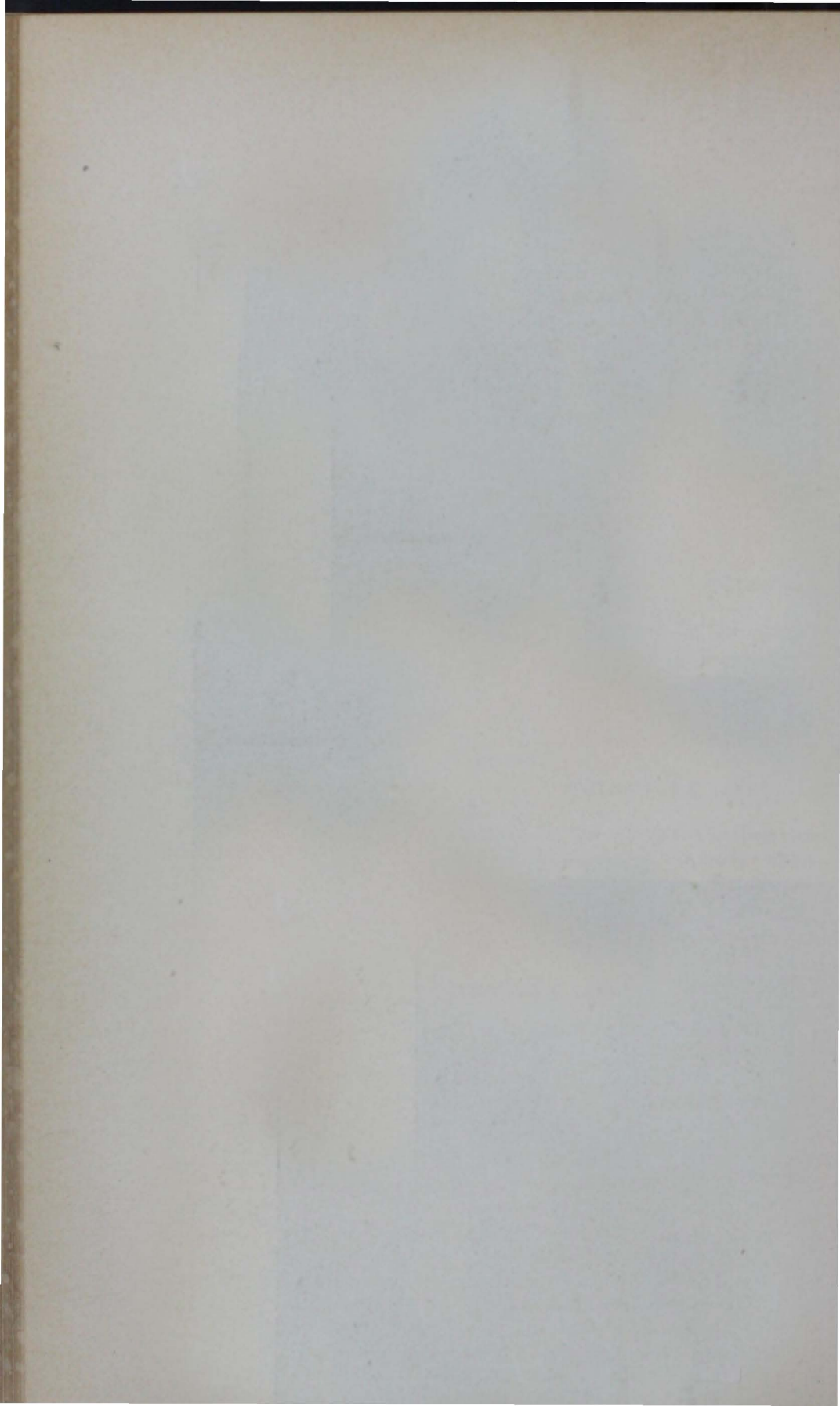
Gastro-Intestinal Variety.—The patient suddenly experiences attacks of vertigo, pallor of face, nausea and vomiting, with fever, the temperature varying between 100 and 103, pulse tense and rapid, respiration hurried, and the urine scanty, with low specific gravity; unless symptoms are promptly relieved convulsions may occur, followed by coma and death, or drowsiness supervene, followed by coma, which is really nothing but a profound sleep. Rarely an acute maniacal outbreak follows the gastro-intestinal symptoms.

Convulsive Variety.—Without any appreciable prodromes, epileptiform convulsions, with or without loss of consciousness. The convulsions may consist of a single paroxysm, or a succession of fits may follow one another at interval of a few minutes or several hours, the patient in a condition of more or less profound insensibility during the intervals. The fits almost exactly simulate true epilepsy. In this variety the temperature is high, from 103 to 106 or more, the pulse rapid, with or without tension, the respirations quickened. Coma followed by death is a very common ending of this variety of uraemia, or after a profound sleep of hours the patient gradually recovers his usual health. Alcoholic excesses are responsible for many of these attacks.

Cerebral Variety, or Uraemic Coma.—Develops either gradually, with an increasing drowsiness associated with headache, and irritability of temper (mild mania). Nausea, vomiting, and rise of temperature, often reaching 105, rarely 107, with rapid, full pulse, or the patient may fall suddenly into a condition of profound coma, the symptoms closely resembling an apoplectic stroke, except the high temperature. Uraemic coma is always accompanied with rise of temperature and stertor. "The stertor is peculiar; it is not the 'snoring' of apoplexy, but a sharp, hissing sound, produced by the rush of expired air against the teeth or hard palate." (Loomis.) The respirations are accelerated, the pulse rapid, but minus tension. This variety may suddenly terminate fatally with a convulsion, or a deepening coma with prostration and cold, wet skin, with oedema of the lungs, or, rarely, gradual recovery.



PLATE LXIII.*a*.—Chest Expansion and Back Treatment.



DIAGNOSIS. Uraemic conditions closely resemble a number of conditions in which convulsions and coma are prominent symptoms. Much valuable assistance is obtained in the diagnosis by a knowledge of the condition of the kidneys. Always obtain a specimen of urine at once and subject to an albumen test at least.

Another valuable aid is the temperature record. Acute outbreaks of uraemia are always associated with a rise of temperature, the result of the irritation of the heart centers and not due to an increased arterial pressure.

Cerebral apoplexy may be mistaken for uraemic coma, or the reverse. The chief points of distinction are, in the latter the attack is usually in patients suffering from dropsy, and that the coma is not sudden in its appearance, but is generally preceded by other nervous phenomena, such as headache, vertigo, dimness of vision, obstinate vomiting, and convulsions. Again, the uraemic stertor is a sharp, hissing sound, while that of apoplexy is "snoring." Apoplexy is followed by paralysis; uraemic coma is not.

An epileptic seizure is preceded by the sharp cry and extreme pallor of the face, the countenance being dusky in uraemic convulsions.

PROGNOSIS. A very grave condition. The prognosis depends upon the amount of retained poison, the length of time it has been retained, and the condition of the organs of elimination.

THE TREATMENT.

Regulate the vaso-motor nervous system, then give a general treatment, using considerable time in the manipulations over and in the region of the renal splanchnics, vibratory, and kneading deeply. Stretch the serrati muscles in the mesentery plexus of nerves by drawing the body well backward and pressing strongly against the sides of spines at the same time. The treatment should be thoroughly done each time, and not in haste. These cases require care, as well as thoroughness. The mesentery circulation is usually at fault, especially the venous.

CYSTITIS.

SYNONYM. Catarrh of the bladder.

DEFINITION. An inflammation of the mucous membrane lining the urinary bladder, acute or chronic in its course, and of either a catarrhal, croupous, or diphtheritic character; characterized by rigors, moderate fever, hypogastric pain, frequent but scanty micturition, and severe vesical tenesmus, the urine containing pus (pyuria).

CAUSES. Acute Variety.—Long retention of urine; foreign bodies in the bladder, pyelitis; urethritis; blows over the pubes; myelitis, and secondary to fevers or diphtheria. Chronic Variety.—Following the acute variety; retention the result of enlarged prostate or a urethral stricture; calculi; gout; chronic Bright's disease.

PATHOLOGICAL ANATOMY. In acute catarrhal cystitis there first ensues hyperaemia of the mucous membrane of the entire or a portion of the bladder, manifested by redness, swelling, and oedema; followed by an increased secretion of the small glands at the base of the bladder, and an increased growth and consequent desquamation of the vesical epithelium, together with a copious generation of young cells; if the hyperaemia be decided, rupture of the capillaries and extravasation of blood occur. If the inflammation be intense, suppuration of the submucous connective tissue may result, and ulceration of the mucous membrane permit the submucous abscesses to empty into the bladder; if of a croupous or diphtheritic character, the morbid anatomy does not differ from the same variety of inflammations in other mucous membranes.

In chronic cystitis "the mucous membrane is thick, blue-gray in color, and very tough. Muco-pus and viscid mucus are formed in large quantities upon its surface. The muscular wall of the bladder may sometimes be half an inch thick, and the fasciculi give a ribbed appearance to the internal surface, called the "columnar bladder." The hypertrophy of chronic cystitis may be eccentric or concentric. In some cases diverticuli are formed, in whose walls are dilated and tortuous veins. In nearly all cases bacteria are found in abundance." (Loomis.)

SYMPTOMS. Acute Cystitis.—The onset is usually abrupt, by rigors, slight fever, loss of appetite, sleeplessness, a feeling of depression; frequent micturition, though the urine is only voided drop by drop, and its passage followed by distressing vesical

tenesmus, the result of spasm of the bladder; pain over the pubis and in the iliac regions, of a dull character, at times becoming sharp and agonizing. Burning along the urethra adds to the distress of the patient. The urine is cloudy, of an alkaline reaction, and at times is foetid, the microscope showing epithelium, pus, and red blood corpuscles.

Chronic Cystitis.—The onset is gradual and insidious, and is excited by some obstacle to the evacuation of the urine, such as stricture, the presence of a stone in the bladder, or enlargement of the prostate gland. There are present dull pain, frequent but scanty micturition. The urine is alkaline, containing large amounts of muco-pus or pus; on standing it deposits a thick, glairy, viscid sediment, in which, under the microscope, triple phosphates and large pus corpuscles, extremely regular both in contents and in shape, may be detected. Although the quantity of urine voided by the patient is small, yet if immediately after micturition the catheter is used, several ounces of fetid, cloudy, alkaline urine may be removed. Patients with chronic cystitis usually present decided constitutional debility and mental depression. Severe local pain, emaciation, and occasional bloody urine indicate ulceration of the vesical mucous membrane.

DIAGNOSIS. Pyelitis has lumbar pains following the course of the ureters, frequent micturition without the severe vesical tenesmus; the urine, although cloudy, has an acid or neutral reaction.

PROGNOSIS. The acute variety is, as a rule, good, being controlled by the cause. The chronic continues for years, and after hypertrophy of the bladder is incurable.

THE TREATMENT.

The treatment should be directed to the spine, from the eighth down, including the sacrum, and movement of the dorsal and lumbar muscles outward and upward; while the patient lies on the side or stomach there should be strong pressure on either side of the spines and pulling the limbs backward so as to spring the spine forward, stimulating the abdominal viscera so as to free the portal venous circulation; then, with the patient lying on the back, lower limbs flexed so as to thoroughly relax the abdominal muscles, manipulate the lower abdomen by a kneading process, vibrating gently, persistently, thoroughly, for several minutes, care being taken to have the bladder emptied before treatment is begun. The congestion being removed by taking off the

pressure, let the patient rest. Occasionally wash out the bladder with warm water, and repeat the manipulations every day, or even oftener for a few times; then every other day. The bowels should be regulated, even if the syringe and warm water have to be used daily. There should be divulsion of the sphincters with the bivalve or digits if contracture exists there.

INCONTINENCE OF URINE.

This is a most annoying affection, characterized by inability to hold the urine, involuntary discharge of urine, usually in children, and is most troublesome at night, the patient "flooding the bed" every night. Some are supposed to do so from habit. Much anxiety on the part of mothers is exercised to prevent it, and many physicians have tried to cure the so-called habit. The affection has but one leading characteristic—"an unconscious discharge of urine during sleep." It is confined to child life—occasionally observed in adult life.

The affection is due to irritation of the sympathetic nerve filaments that supply the mucous membrane of the urethral canal, or reflexly from an irritable prepuce, due to phymosis, or prostatic enlargement. The sacral and hypogastric plexuses of the nervous system control the bladder and urethra, and as the separation of the motor, from the sacrum, from the sympathetic, brings into prominence the sensory, relaxation of the sphincter urine muscle ensues, and the water runs off without stint or limit only to the point of completely emptying the bladder. The sacral plexus area is hyperaesthetic, and when the patient lies on the back the pressure irritates the terminal sacral filaments, reflex effects follow, the sphincters relax, and the discharge occurs. Many have recommended elevation of the hips during sleep, and the only effect of that is to lessen the pressure.

THE TREATMENT.

The patient being a child, let the operator place it on the table or bed, face down, take hold of both ankles with one hand, place the other hand on the sides of the sacrum, with the fingers and thumb spread or applied to either side of the spinous processes of the sacrum, raise the feet, pressing at the same time against the sacrum, move the feet from side to side, then lower the feet and limbs to the level of the body; then repeat the same process, placing the fingers a little higher up the sacrum each

time the thumb and fingers shall have covered the whole lumbar region as high up as the last dorsal. Then begin low down on the sacrum with the fingers, and use rapid vibratory movements upward, following up and covering the same area. This is most effectual, and many cases are cured in two or three treatments. It should be repeated every other day, however, until a perfect cure is effected.

Where the affection is due to phimosis, circumcision should be performed, and the urethral canal treated with sounds until all irritation ceases, and this should be followed up with Osteopathic treatment as well. The Orificial Surgeon and Osteopath are alike in many things, and the one is sometimes as essential as the other. They are agreed in this, therefore ought to "walk together."

MOVABLE KIDNEY.

SYNONYMS. Floating kidney; wandering kidney; ectopia renis.

DEFINITION. A condition of the kidney, either congenital or acquired, in which the tissues around about the organ are so lax and the renal vessels so elongated as to permit the kidney to be moved in certain directions, causing a movable tumor in the abdomen.

CAUSES. The kidney is normally held in position by the layer of peritoneum which is attached to the anterior surface of its adipose capsule. In movable kidney, the adipose tissue in which the normal kidney is imbedded partly or wholly disappears. The renal vessels are in many cases abnormally long. Relaxation of the abdominal walls from pregnancy or other causes. The use of tight corsets or girdles about the waist; violence; increased weight of the organ from disease; the pressure of tumors growing in the neighborhood of the kidney; the traction of hernias. The condition may be congenital or acquired, more frequently the latter. It is far more frequent in women than in men.

SYMPTOMS. Floating kidney may and often does exist without any noticeable symptoms, the condition being unknown until accidentally discovered by the physician while making a physical examination of the abdomen. As a rule, however, patients experience a heavy, dragging pain in the abdomen, aggravated when

walking or standing. There are also present gastro-intestinal symptoms, more or less constant, with melancholia, aggravated by the mental anxiety the presence of a tumor in the abdomen causes the patient, in spite of the assurances of the physician that it is not a cancer. At times, from some unknown or unrecognized cause, the movable kidney swells and becomes very sensitive to the touch, and migrates a considerable distance from its normal position. Such an occurrence aggravates all the former symptoms mentioned. This condition has been ascribed to a twisting of the ureter and consequent retention of the urine in the pelvis of the kidney, or to localized peritonitis, or to a partial strangulation of the kidney from compression or twisting of its blood-vessels. Hysterical symptoms are frequently observed in women suffering from wandering kidney.

DIAGNOSIS. The possibility of dislocation of the kidney is to be recollected in determining the nature of obscure tumors within the abdomen. The late Prof. Austin Flint based the recognition of this variety of abdominal tumor on the following diagnostic points: "It is situated in the hypochondriac region. It has the size and shape of the normal kidney, and this may be determinable by palpation, which is most advantageously employed by placing one hand over the lumbar region and the other in front on the abdominal walls, and then making counter-pressure from one hand to the other. It is generally movable, and in some cases the organ can be restored to its proper situation." Other tumors are to be excluded by the absence of their diagnostic characters.

PROGNOSIS. It is a rare occurrence to have a fatal termination from movable kidney *per se*.

THE TREATMENT.

Inasmuch as there is no attachment, in this condition, to the peritoneum and the adipose capsule, the indications are to be met. If a relaxed abdominal wall is permitting depression of the kidney, it must be corrected. If a tumor is causing the trouble, it must be removed. If extreme tenderness exists, that may be relieved by removing portal congestion, and then require deep inhalations, and use upward pressure with both hands, from below upwards, as exhalation takes place, having the patient lie on the back, with limbs flexed. Treat dorso-lumbar region thoroughly three times a week, and especially use pressure about the second lumbar, as the limbs are strongly pressed or drawn backward, both at the same time; the patient being recumbent, lying on the

face, the arm of the operator placed under both limbs above the knees, with the thumb and fingers of one hand pressing the spine, raise the limbs as strongly against said pressure as the patient can comfortably endure; hold that position for a moment, then swing the limbs from side to side two or three times, then lower the limbs on the table, then repeat said move, each time the fingers being moved down the spine, clear to the lower end of the sacrum. These processes should be gone through with three times each week for several weeks, or even months.

RENAL CALCULI.

SYNONYMS. Nephro-lithiasis; gravel; renal colic.

DEFINITION. Renal calculi are concretions formed by the precipitation of certain substances from the urine, around some body or substance acting as a nucleus. Their presence may not be recognized until one or more attempts to pass along the ureters, when an attack of renal colic results; or, by irritation, pyelitis is produced; or, more rarely, they are voided by the urine without exciting any symptoms. By gravel is meant very small concretions (sand), which are often passed in the urine in large numbers.

CAUSES. Occur at all ages; frequent before the fifth year, and from five to fifteen. Males are more liable than females. A special liability seems to exist in some families, but the precise etiology of calculi is not yet determined.

VARIETIES. 1. Uric acid, as calculi and gravel, and especially associated with the gouty diathesis. 2. Urates, chiefly urate of ammonium; nearly always in childhood. 3. Oxalate of lime or mulberry calculus; characterized by hardness, roughness, and very dark color. 4. Phosphatic calculi form as frequently in the bladder as in the kidney, and present a chalky or earthy appearance. 5. Alternating calculi, consisting of alternate layers of two or more primary deposits.

ANATOMICAL CHARACTERS. In structure, a urinary calculus usually consists of a central nucleus, surrounded by the body, and outside of all there may be a phosphatic crust. The nucleus may or may not be of the same material as the rest of the stone, sometimes being a foreign body, mucus, or blood. A section generally shows a stratified arrangement, or it may be partly or completely radiated.

SYMPTOMS. The clinical signs are those consequent on the results of their presence, to-wit: renal hemorrhage, renal congestion, inflammation terminating in abscess, pyelitis or pyelonephritis, cystitis, or renal colic. The symptoms begin abruptly, by severe, agonizing pain in the lumbar region, following the ureters into the corresponding groin and thigh. Pain and retraction of corresponding testicle; also of glans penis. Face pale and features pinched, the surface cold and damp. Irritability of the bladder, the urine passing in drops containing some blood. So severe is the pain at times that the patient may faint or pass into unconsciousness, or have a general convulsion. If both ureters are obstructed, uraemic symptoms will arise. The paroxysm usually terminates suddenly after some minutes or hours, the stone escaping into the bladder.

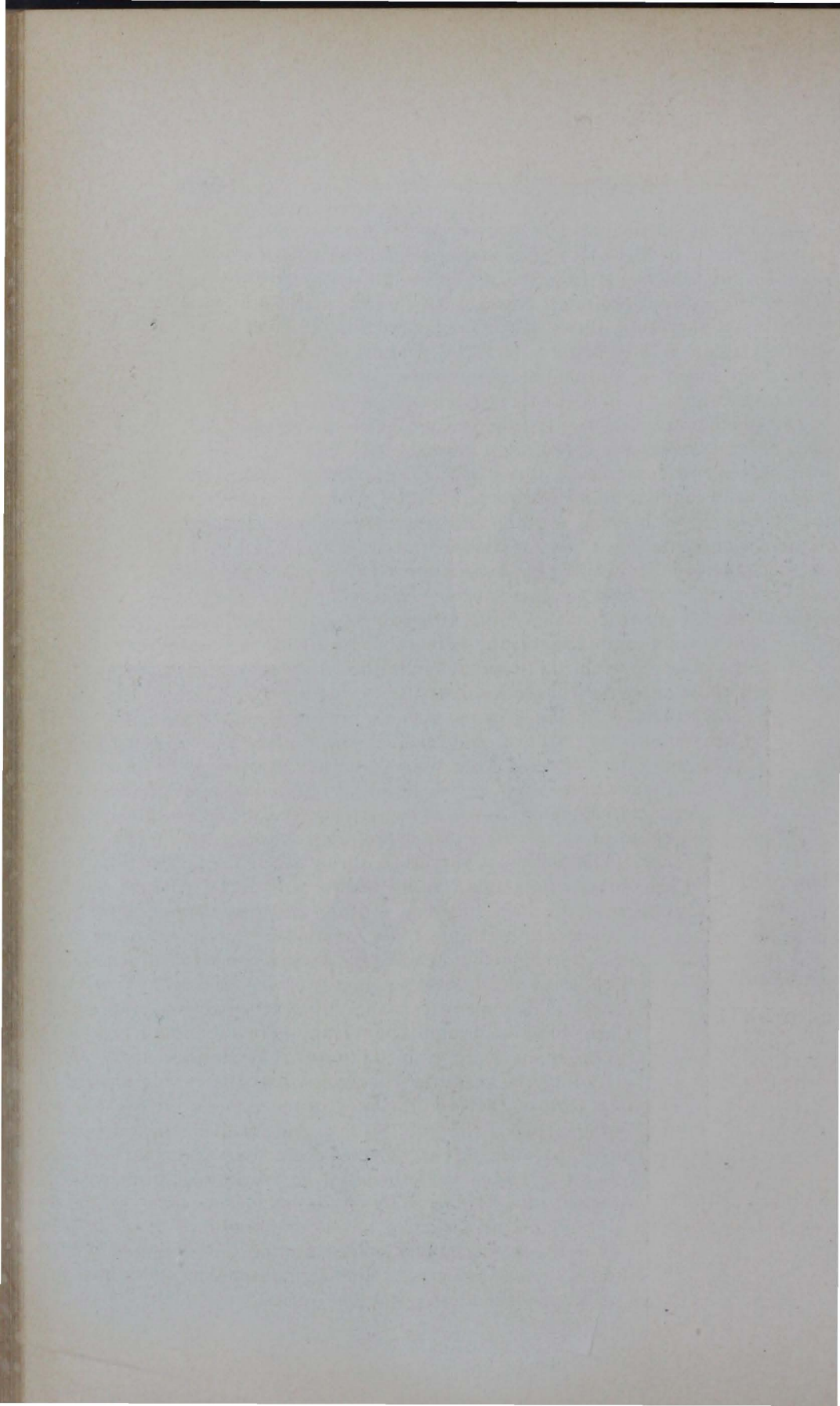
PROGNOSIS. Renal calculus is attended with many dangers. It may produce extensive disorganization of the kidneys, or its passage along the ureter may prove fatal. If the stone be very large, or if more than one, the prognosis is graver. Calculus is a disease very apt to recur. Renal sand (gravel) and small concretions may, after more or less delay, be voided with the urine.

THE TREATMENT.

The operator will direct most of his attention to the relief of the pain during the passage of the stone. Cause the patient to breathe deeply, and as exhalation takes place use efforts to knead the kidneys so as to favor the onward movement of the calculi. Occasionally stretch the abdominal muscles by pulling the lower limb or limbs backward, using considerable pressure from the last dorsal vertebra, and along down through the lumbar region, thereby fully stretching the abdominal muscles over the mesentery vessels and nerves, taking the precaution to regulate the circulation of the blood through the vaso-motors. Relief occurs as soon as the passage of the calculi is effected. The kneading of the kidneys will be somewhat painful to the patient, but may be done by being gentle and seizing the opportunities as the exhalations take place, as the abdominal muscles are then relaxed. General treatment should be given at intervals of two or three days, to promote the normal action of the secretory apparatus, through normal circulation of the blood, which is the natural preventive of precipitations in the kidneys.



PLATE LXIII. *b.*—Different Position of Plate LXIII. *a.*



DISEASES OF THE PERITONEUM.

The peritoneum is the serous membrane lining the interior of the abdominal cavity and surrounding the viscera contained in it. Beginning at the diaphragm, two layers proceed to the liver, then separate to inclose that organ, and open out over it and meet again on the under side and pass on as the gastrohepatic omentum, to the lesser curvature of the stomach; and meeting again at its lesser curvature, these two folds embrace the stomach and meet again at its greater curvature, passing down in front of the small intestine, forming the greater omentum. They are then reflected upward as far as the transverse colon, which they inclose, meeting again at the back of the colon, proceeding to the spine as the transverse mesocolon. Here the two layers diverge. The upper ascends in front of the pancreas to the under surface of the diaphragm, the starting point; the lower is reflected from the spine, over the small intestines, as the mesentery. From the root of the mesentery it passes into the pelvis, invests the upper part of the rectum, and thence reflects on the bladder, forming between the two (rectum and bladder) the retrovesical pouch. In women it is reflected from the rectum to the upper part of the vagina, and thence over the uterus, from which it proceeds to the bladder. From the bladder it passes up the anterior wall of the abdomen to the diaphragm. It completely envelops the stomach, liver, spleen, first portion of duodenum, the jejunum, ileum, transverse colon, sigmoid flexure, the upper part of the rectum, the uterus, and the ovaries.

PERITONITIS—INFLAMMATION.

Inflammation of the peritoneum may be either acute or chronic. It is characterized by fever, intense pain, tenderness, tympanitis, vomiting and prostration. It may be limited to any part, or it may involve the entire membrane. Inflammation of this membrane, as of all other parts of the system, results from congestion, or impeded capillary circulation. It may be caused by severe cold, protracted irritation, pressure or blows upon the abdomen, penetrating wounds, inflammation of intestines, or any organ that it covers; perforation of the stomach, intestines,

gall bladder, urinary bladder, vermiform appendix, or surrounding parts; septicaemia, pyaemia, erysipelas, or hernia, or injuries during parturition. The chronic form may result from tuberculosis, scrofula, cancer, albuminuria, sclerosis of liver.

The inflammation is the result of the arrest of the normal secretions of the membrane—the congestion of the capillaries—often to the extent of bursting and consequent extravasation of the tissues. The fibrinous exudation is of a dull and opaque character, and is adhesive, gluing the parts together. This is the stage of adhesive inflammation. If an exudation of serous fluid ensues, and is poured out into the peritoneal cavity (several gallons of which may occur), it is termed exudative inflammation. In this kind of inflammation, if recovery takes place, the fluid is absorbed, largely, but the unabsorbed portions form adhesions between the membranes of the different abdominal organs, often causing deformity of the parts involved. In the local form, where the inflammation is circumscribed, the same general conditions ensue, and results are the same, although circumscribed, of course. The chronic form follows the acute, or is associated with Bright's disease of the kidneys, sclerosis, scrofula, or tuberculosis. The membrane may be irregularly thickened or opaque, and adhesion having taken place in various parts restricts their action, and where encapsulation ensues, pus may form.

SYMPTOMS. Acute Form.—When idiopathic, the onset is usually sudden, ushered in by a chill of more or less severity and duration, followed by high fever, wiry pulse and tense, severe pain of a cutting or boring character, extreme tenderness over abdomen, so that the slightest touch of the abdomen intensifies the pain. The knees are flexed, and every effort of the sufferer is made to relax the abdominal muscles; decubitus ensues, the patient slips down in bed; intense distension of the abdomen is present, rigid, tympanitic, from the effusion; the bowels usually constipated; shortness of breathing, on account of the diaphragm being crowded up against the lungs, even as high up as the third or fourth rib, causing compression of lungs and heart, or displacement, and of spleen as well, and liver. Appetite is greatly impaired, nausea and vomiting are almost a constant feature, hiccough a not infrequent annoyance on account of the irritation of the terminal ends of phrenic nerve filaments that end in the under surface of the diaphragm. In some cases, with great inflammatory conditions, the temperature will be less than normal in the acute form. If from extension of the inflammation,

the pains are gradually increased and all of the symptoms are magnified; and if from perforation, all of the symptoms of shock ensue.

Under ordinary conditions and circumstances these symptoms continue for several days, then begin to decline, and a tedious convalescence takes place; or all of the symptoms suddenly grow worse, strength fails, surface becomes cold, pulse more rapid, collapse, with hypocritic face, anxious expression, pinched features, sunken eyes, drawn upper lip, pupils suddenly dilate, and death closes the scene.

Chronic Form.—There may be irregular chills, fever, sweats, distended abdomen, with constipation alternating with diarrhea, diffused tenderness, localized painful spots and hardness, colicky pains during digestion of food, gradual or rapid emaciation, dullness of the lower abdomen on percussion, from the presence of encysted fluid.

Too much care can not be exercised in diagnosing this sort of inflammation. It is nearly always associated with diseases and accidents of the abdomen, and should be readily differentiated from diseases of other tissues or other organs, such as acute gastritis, acute enteritis, rheumatism of abdominal muscles, the biliary colic or renal colic, all of which have distinctive and peculiar characteristics that need not be mistaken for peritonitis.

THE TREATMENT.

It will be remembered that the cure of this inflammatory condition must result from a removal of obstructions from the veins and lymphatics of the peritoneum itself. In acute peritonitis extreme soreness characterizes the disease, and as a consequence manipulations should be exceedingly gentle. The amateur will find that automatic manipulations do not answer his purpose here. The first step to take should be with a view to removing the pressure consequent upon the presence of feces in the colon. This may be accomplished by the free use of warm water from a fountain syringe, through a long tube or nozzle, passing it, if possible, beyond the sigmoid flexure, and filling the colon with the water, letting it remain for a few moments; then letting it pass off. After the patient rests a few moments, repeat this process. This not only serves to remove much of the pressure, but starts up the action of the lymphatics and veins, and the water enters directly into the tissue, dissolving the precipitated elements and carrying them off through the veins, thereby decreasing effusion, relieving tension, and as a consequence lessening pain. This

should be the first thing done. After removing the pressure in this way, Osteopathic treatment proper may be instituted. Begin at the vaso-motor area, regulating the peristalsis in the arteries, then endeavor to unite the forces through the splanchnics and pneumogastric nerves, treating the neck muscles, chest, dorsal and all the intercostales, so as to take off all of the pressure from the lungs and the chest cavity. The vibratory manipulations over the abdomen should be light, mild and carefully done. The movement of every muscle, superficial and deep, should be made, being particular to give the liver due attention, for it is through it that the portal system must empty its blood; the waste material must pass off that way also, so that it becomes a matter of necessity to open the channels that lead into this portal system. Cording the lower limbs, holding the blood in the veins for thirty to forty-five minutes, relieves pressure, lessens pain, oxygenates the blood in the limbs, until room has been made for greater expansion of lungs, on account of abridgment of action of abdomen from tenderness. Applied alternately to the other limb, when possible, will be found absolutely beneficial, especially when the soreness is so extreme as to inhibit Osteopathic manipulations over the abdomen. Stretching the arms high above the head and moving the muscles from the spinous processes, moving the arm as in treating the splanchnic region in other affections. These treatments should be repeated as often as every day, or oftener as conditions of patient demand them. The judgment of the operator should determine that matter.

As in other intestinal or bowel troubles, do not feed the patient until the digestive organs are in a condition to assimilate food. Would any one presume that assimilation would be possible under the conditions existing as above described? Open the closed-up channels that are holding the foreign material producing the present difficulty, and the appetite will assert itself in due time. Then let the patient eat, with judgment, of course. There will be no starvation, with plenty of water introduced.

DROPSY.

SYNONYMS. Ascites; dropsy of the abdomen.

DEFINITION. An infiltration of serous fluid into the peritoneal cavity, distending the abdominal walls, displacing viscera, embarrassing respiration, added to the cause producing it. Aside

from general dropsy there may be dropsy of the kidneys (nephritic), or heart (cardiac).

The principal cause of dropsy is mechanical obstruction of the portal system, from cirrhosis of the liver, diseases of the heart or lungs, pressure from tumors, cancer, or impediment to the circulation of venous blood.

PATHOLOGY. The quantity of fluid in the peritoneal cavity varies greatly, there being from a few ounces to many gallons; it is of straw or greenish color, having an alkaline reaction. The peritoneum becomes thickened, and presents a cloudy, sodden appearance, due to long contact with the fluid.

SYMPTOMS. Swelling to a greater or less degree of the abdomen, and constipation, due usually to pressure of the fluid upon the sigmoid flexure; scanty urinary secretion, due to pressure upon the renal vessels; difficulty of respiration, due to pressure upon or against the diaphragm; the umbilicus is forced outward.

DIAGNOSIS. This is easily formed by palpation, or holding the hand on one side of the abdomen and tapping with the fingers on the other side of it, when a peculiar wave-like impression is imparted to the other hand. If the patient stands erect the fluid tends to precipitate to the lower abdominal region, and percussion reveals a dullness over the site of the swelling, and a tympanitic sound above the swelling. This may be verified on the patient changing position. The differentiation may be readily distinguished from ovarian tumor by the history of the case; and from pregnancy, by the character of the enlargement; and from the distension of the bladder, by its changeable position; and from chronic peritonitis, by pain and tenderness, peculiar thickened abdominal walls, and association with tubercule.

PROGNOSIS. This is influenced largely by the cause producing the obstruction that produced the affection, which will be greatly influenced by the condition of the organs involved, as organic diseases of the heart, liver, kidneys, or lungs render it most unfavorable, while the idiopathic form usually terminates favorably in a few weeks or less.

THE TREATMENT.

The ordinary treatment for ascites by the medical profession is by medicines. When these fail, as they generally do, resort is had to tapping—the use of the trocar or the aspirator. Resort is generally had to such agencies as produce watery stools, or that act on the kidneys and skin, called hydragogues and diaphor-

etics, such as potassii aceta, podophyllin, jalap, digitalis, *et id omne genus*. It is evident that the removal of the accumulation of water should be effected. Acting upon this suggestion, the physician turns his whole attention to that object, and when it is removed, as is frequently done, the patient is reduced to such weakness as to present indications of collapse, and often dies from simply prostration.

The Osteopathic treatment for dropsy consists of the restoration of the normal circulation of the blood and other fluids of the organ involved. No pathological condition can possibly exist in the body when all of its channels, glands, and organs are in a normal condition, and the fluids are permitted to pass through them. This is an admitted fact. Now, as all of the processes of life are carried on through a coordination of the nervous system, our first attention should be directed to it. Whatever the organ involved, it will be found upon careful investigation that pressure upon the nerves terminating in that organ or tissue is the prime cause of the dropsy; now the effects extend to other organs and parts of the body, involving perhaps all of it. The treatment, then, consists in removing obstructions everywhere. Start the flow of fluids to moving. This is the only salvation—"the moving of the waters." It will be found that this fluid is the product of waste material confined in the tissues, due to the separation of the terminal sympathetic and motor nerve filaments, that is caused by the paralysis of said filaments primarily in some organ or vessel or gland. Our business is to find these obstructions and take off the pressure, keep them off by repeated efforts, and let nature perform its normal functions. We cure nothing. All we can expect to do is to adjust the system to itself, remove foreign and unnatural influences, and await effects—results.

The heart and lungs should be freed the first thing. Stimulate the vaso-motor area, remove all pressure caused by contracted muscular fibers in the neck; raise the clavicles, raise the arms successively, stimulate the cervical, brachial, dorsal, lumbar and sacral regions; vibrate thoroughly the abdomen, knead the bowels, liver and spleen, arouse general circulation in the lower extremities. Be sure to see to the venous system, that all obstructions are removed from them throughout the whole body. Stimulate the renal splanchnics and lumbar area, moving the muscles upward and outward from the spines of the vertebrae all down the back. Unite the splanchnic and pneumogastric terminals, so that these two forces—positive and negative—may

arrest the degenerative processes going on in the system. An excess of the alkaline element is predominant in the whole system, and this is neutralized by the union of the splanchnic and pneumogastric nerves in the solar plexus, effected through proper manipulations of the dorsal region and the sides of the neck. General treatment is usually demanded in all cases of ascites, and special treatment of the organs, especially involved. Acidulated drinks will aid in neutralizing the alkaline elements, causing rapid elimination of the excess of fluids. This should surely receive our careful consideration. This is the first time that such an idea was ever suggested as a reason for the use of such an agent—an acid.

The treatment should occupy twenty to thirty minutes at each sitting, once a day. The lower dorsal needs due attention.

DISEASES OF THE INTESTINAL CANAL.

INTESTINAL INDIGESTION.

This may be termed intestinal dyspepsia—really duodenal indigestion, a failure of the normal secretions that are formed in the mouth and stomach, due to nervous failure in the salivary and peptic glandular systems, hence an incomplete formation of chyme. Not only is the deficiency of the formation in the glands named, but in the pancreas also, and perhaps in the biliary secretion, as it takes all of the secretions to make chyle. Add to this condition a complete or partial inactivity of the muscular walls of the intestines themselves, producing stasis, or lack of intestinal peristalsis, and we have a condition properly denominated intestinal indigestion, usually characterized by pain and distension and tympanitis, experienced several hours after meals, producing anemia and nervousness. The pathologists enumerate as causes: Imperfect diet, over-eating, use of tobacco; deficient amount of exercise, too much stimulus; diseases of the stomach, liver, pancreas, malaria. Not once saying that the secretions that digest food are at all concerned in the production. Here is where the whole trouble lies—nervous exhaustion. If the nervous system had performed its function, the secretions would have been in

proper proportion, quantity and quality, and no dyspepsia would have existed.

SYMPTOMS.—They are legion. The principal are pain, flatulence, borborygma, headache, loss of appetite, pains in the limbs, with frequent attacks of diarrhea, frequent colic. The chronic form is characterized by most of these, with increased marked nervous phenomena, depression of spirits, sleeplessness, headache, vertigo, ringing or buzzing in ears, cardiac irritability, numbness, tingling in the extremities, fainting, sometimes epileptiform attacks, harsh, dry skin, urine high-colored, uric acid and oxalate of lime precipitates, anaemia, emaciation, general distress, hypochondriacal.

THE TREATMENT.

Begin with the vaso-motor system, holding that area for a short time, free all of the muscles of the neck, raise the clavicles, shoulders and chest muscles by raising the arms, and treating the spine with the fingers as the arm is raised, pulling the muscles strongly upward and outward at each raise of the arm, as far down as the twelfth dorsal. Treat both sides the same way; then have the patient lie on the back, manipulate the liver, stomach and bowels slowly, thoroughly, deeply, gently, for fifteen or twenty minutes. Take off all of the pressure everywhere. The sphincter muscles of the lower bowel will most generally need attention, and should not be neglected.

The patient lying on the stomach, relaxing all muscles, the spine should receive special attention all the way down, and especially in the splanchnic region. The rotary manipulations along the spine, over the abdomen and liver, should be carefully done. Flushing the bowels every night, retaining the water, as much as a quart, will be of great benefit. Full, deep inspirations at stated periods, and as much as half a dozen inspirations at a sitting, every two to four hours, will aid in the recovery, the patient instructed to breathe through the nostrils, with mouth closed. Permit the moderate use of water, either hot or cold, but the victuals should not be "washed down" with water at meals, nor should they be eaten in haste. Thorough mastication is important. No piece-meals should be indulged in, and if only two meals a day were eaten it would be better. The diarrhea, when it occurs, should receive the reverse treatment—from the sacrum to the first lumbar, springing the lumbar region well back.

The pains in the bowels will be readily relieved by the splanchnic treatment; that is, raising the right arm high, and

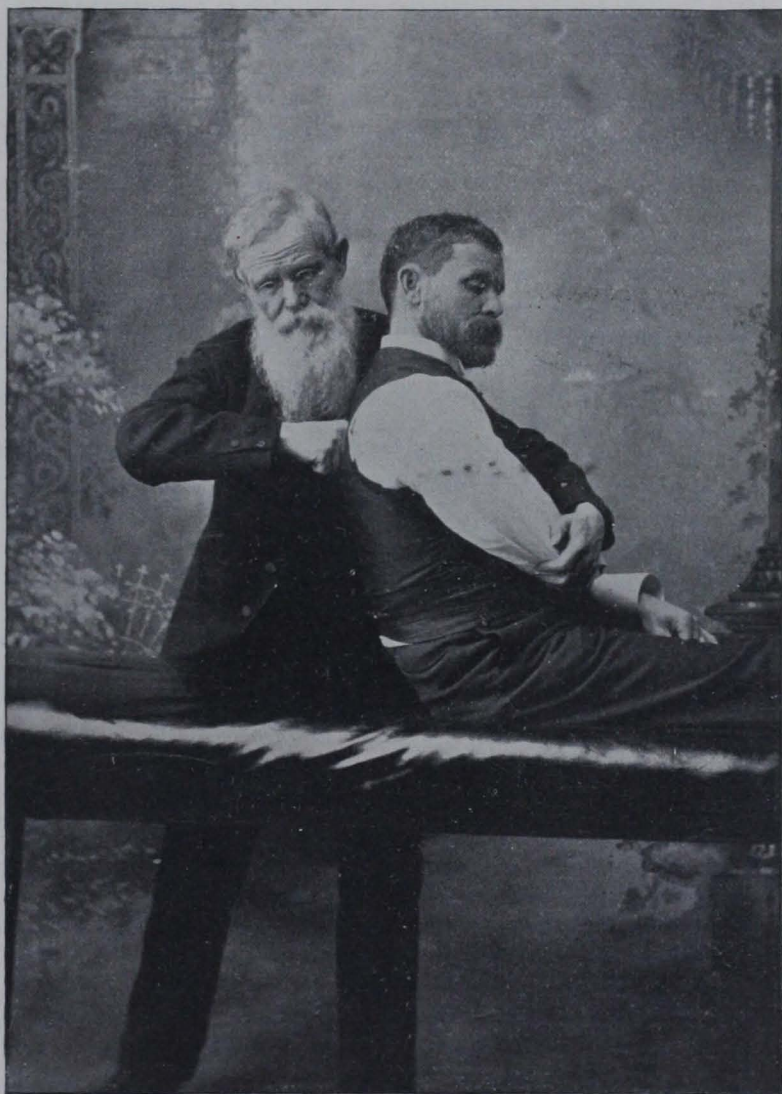
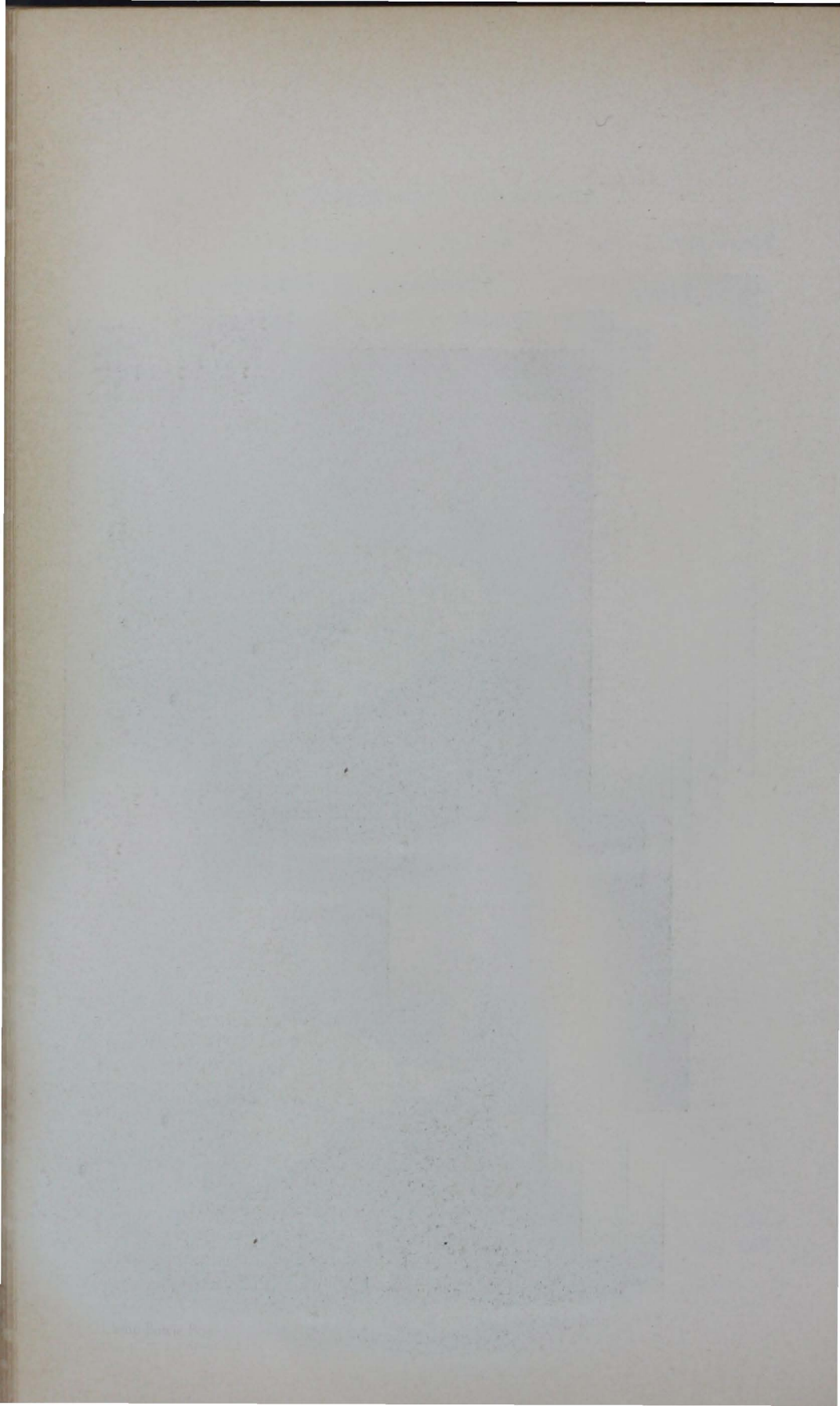


PLATE LXIV—Treating Back, Lying on Couch.



pressing steadily, firmly, in the splanchnic region on the right side of the spinous processes.

The treatments should be done slowly and carefully, occupying from ten to thirty minutes, as often as every other day at least, until recovery. These maladies need no medicines. The positive and negative forces properly united, and all pressure kept off, are the means of cure that nothing can possibly supersede.

INTESTINAL COLIC.

This is a disease of the alimentary tract, having usually the same cause as intestinal indigestion, and only differs in character of paroxysms, being those of an acute pain, seemingly starting at or near the navel. It is relieved by the same kind of treatment (except those pains brought on from taking poisons).

Associated with this affection we may have various sorts of pain, and in different localities of the abdomen, so that it is essential that a proper differentiation be had or made regarding the true state of affairs.

Gastralgia, hepatic colic, nephritic colic, uterine colic, ovarian colic, and inflammatory disorders of the abdomen should have special attention. So also lead colic, which should receive the proper antidotal remedies, which are alum and morphia—so stated on good authority, yet Osteopathy is a more effectual remedy for the colic; then morphia need not be used, but the alum only.

THE TREATMENT.

Take hold of the patient's right arm, stretch it strongly up to the side of the head, and at the same time use pressure with the fingers of the other hand on the right side of the spinous processes from the fourth to the eighth dorsal vertebra, letting the arm down quickly for a few times, as the fingers are lowered along the spine.

If there is other trouble, treat accordingly, as indicated, repeating as often as is required. There can be no iron-clad rules for the operator to follow. It is presumed that the general manipulations are sufficiently understood to qualify the operator to do whatever should be done in any given condition.

CONSTIPATION.

This is a functional inactivity of the intestinal canal—a dormant or lessened peristalsis of the intestines and colon, usually attributed to biliousness. Yet it is said that a lack of biliary secretion produces constipation. The accusations against the liver are so numerous and groundless that it would be a great insult to the reader to even attempt to record them. It is not the liver's fault that it becomes torpid, nor is it its fault that the bowels do not get rid of the effete substances called feces. The commonly attributed causes are as groundless as it is possible to imagine. Dyspepsia, character of the food, diseases of the stomach, liver, malaria, lead poisoning, syphilis, have been enumerated as causes. The prime cause of inactivity or irregularity of action is the failure to respond to nature's suggestions. The irregularity of the movements is generally attributable to neglect on the part of the person. There is a tacit resignation on the part of the intestines to wait the convenience of the subject until the "next day," and thus a habit is formed which, duly cultivated, becomes fixed; then the patient complains of being constipated. The bowels are then moved only occasionally, once perhaps every three or four days, and then with much straining, distress, flushed face and cerebral congestion; or the bowels may be moved every day, but the stools are small and hard. These may be changed to partly formed stools, and retained in the rectum, causing much uneasiness, pain, vertigo, headache, mental torpor, palpitation of the heart and abdominal distension. The patient usually indulges the mental state that unless the bowels move once or more times each day something dreadful will happen, hence a resort to purgatives is had, and a habit is formed of moving the bowels therewith, and no movement occurs without such procedure. In the large majority of such cases, if the patient would wait, the actions would come around all right and regular. At any rate, our treatment will suffice, and no one need be constipated long; but cured of it and all of its possible consequences, without resorting to physics. The "regulator pellets," the "mild laxatives," and "the syrup of figs" may then be dispensed with. The evil consequences of these physics are equal to, if not greater, than the constipation.

THE TREATMENT.

While it is said that the "fifth and seventh ribs may be turned a little," causing inactivity of the liver, we are not disposed to

believe such a statement as at all consistent with actual facts, and are not going to attempt to make believe such a thing in order to make it appear marvelous to cure constipation—"to set a rib," or "adjust an atlas," to take off the pressure (where it does not exist). Facts shall form the basis of our treatment, as well as the course to establish Osteopathy. This world has been controlled by ignorance and deception long enough, so far as treatment of disease is concerned at least, and in regard to causes as well. It seems like some are possessed largely of a desire to overstate the facts, and thus deceive for gain.

It is thought by some that the bile is the natural physic, and their constant efforts are directed to "acting on the liver" to cure constipation, as well as every other affection that flesh is heir to, and nothing seems "orthodox" unless a catharsis comes of it—in almost all cases. The regular doctor urges "a movement of the bowels" when his patient has a "malaria," when he has a colic, when he has a jaundice, when he has a diarrhea, flux, or is sick at the stomach. Think of it! The laity have no possible or even probable idea of the amount of imposition they suffer at the hands of physicians. Routine prescriptions, ranging from incompatible compounds to *podophyllum peltatum*, are gulped down the poor deluded victims' throats until they can't rest. All of which in no possible manner benefit the patients or effect a cure. The indulgence of such things is surely reprehensible, to say the least of it. These same medicine vendors denounce nature's own way of doing its own business, and if an Osteopath cures a case that has "suffered at the hands of many physicians," he is denounced as an infamous "quack." No law is too severe against him whom they thus stigmatize. The "world do move" nevertheless, and the "common people" are becoming alive to the fact that "there is a better way."

If it could be understood that peristalsis is the result of nervous influence, there would be little difficulty in seeing the philosophy of its necessity, as constipation is due to lack of proper nerve influence. That there are certain agencies which act by irritation of the mucous membrane, and some mechanically, is not questioned, but the normal action is what the Osteopath designs to establish to cure constipation. The how to accomplish that is what follows:

Place the patient on a stool, chair, or any way get-at-able; take hold of the right wrist, extend the arm upwards, place the fingers of the left hand against the sides of the spinous processes,

on the right side of the processes, press hard, holding taut, and suddenly lower the arm; then lower the fingers an inch or so, and proceed as before, covering the whole splanchnic area, beginning about the fourth dorsal vertebra. The neck should be properly extended, and the muscles duly manipulated, the clavicles raised, and the patient being on the back, the liver should receive treatment as prescribed elsewhere—the bowels kneaded from the lower right side, from the region of the ileo-cecal locality upwards, following the course of the ascending colon to the hepatic flexure, thence across the abdomen, to the left side, embracing the splenic flexure, thence down to the sigmoid flexure. This should be done several times, and the gentle tapping of the ends of fingers should not be lost sight of, nor omitted, following the same course, vibrating the abdomen for a few moments each treatment, always following the colon from its commencement to its ending in the sigmoid flexure, and vibrating in that direction likewise. The liver should be thoroughly kneaded at the same treatment, being from fifteen to thirty minutes in giving the treatment. If, upon examination, it be found that the sphincter muscles of the rectum are unduly sensitive and contracted, they should be divulsed thoroughly. It is a fact most thoroughly demonstrated, that irritation of the terminal filaments of the sympathetic nerves, by divulsion of the internal sphincter and muscle relieves constipation, cures hemorrhoids and assists in curing more dyspepsia than almost every other method known. It aids in flushing the capillaries everywhere in the whole body.

The introduction of warm water by the aid of a fountain syringe is surely commendable, proper and right, even to flushing the colon two or three times a week. One ordinary glass tumbler full of water to every ten pounds weight of body should be drank daily. Usually too little water is consumed, to be healthy. Remember that water is at least 70 per cent. of the fluids of the body, and that in order to hold the soluble material of the inorganic substances and disorganized material in solution so that debris may be disintegrated, carried off, ushered into channels especially set apart for that purpose, there must be a sufficient amount of water constantly introduced into the body as it becomes lessened by use or evaporation. These principles and directions carried out, will be satisfactory to both patient and doctor.

The manipulation of the first to fourth sacral: We turn the patient on the face, and move by vibratory movements on either

side deeply, firmly and persistently for two to five minutes—stimulating the nerve filaments that are distributed to and influence the sphincter ani muscles, relaxing them.

Sometimes there is a displacement of the coccyx, which produces hemorrhoids, constipation and other rectal disorders, which needs adjustment, and to set it right frequently corrects the whole difficulty. This is done by anointing the forefinger, introducing it into the rectum, turning the palmar surface posteriorly, curving upwards and backwards until the bone is reached, and then place the fingers and thumb of the other hand on the foramina of the last two or three sacral vertebrae, using considerable pressure to antagonize the finger placed on the inside of the rectum against the coccyx, and adjust it as needed; and when done close the thumb against the muscles and integument with considerable force, squeezing the tissue while removing the finger from the rectum. This stretches the sphincter muscles at the same time, which is usually found to be essential. This, by the way, is the Osteopathic treatment for piles (hemorrhoids), which should be repeated every five days, and will be quite effectual in very many cases. Rectal plugs are often useful also. It will be found that an occasional divulsion of the sphincter muscles conduces to a restoration of many ills that do not down with other treatment. It takes off the pressure and flushes the capillaries, and does unaccountable benefit in many ways, frequently curing many chronic as well as acute disorders. Among the acute disorders may be named flux. A full divulsion of the bowel (the sphincters) in case of flux, and an immediate flushing of the lower bowel with water as warm as can be borne, will invariably cure that affection in an incredibly short space of time. Our Osteopathic treatment, however, is so effectual that other means are usually unnecessary to resort to, or recommend.

CATARRHAL ENTERITIS.

This is placed alongside of bowel complaints, but with the addition of inflammation. It is a catarrhal inflammation of the mucous membrane of the bowels, or small intestines, accompanied with fever, tenderness, pain, and loose discharges therefrom. The locality involved gives the name to the affection—the duodenum being the seat, it is named duodenitis, etc.

It is characterized at first by a hyperaemic condition of the

mucous membrane and glands, followed or accompanied with pain, tenderness, swelling, or oedema; increased watery secretion, proliferation of the epithelium, peeling off of the mucous membrane, resulting in hemorrhage, and then followed by ulceration of the glands. These changes may involve the whole intestinal tract, involving Peyer's patches, and be confounded with the disease recognized as typhoid fever.

CAUSES. Like many other intestinal disorder, it is attributed to a specific virus, improper food, temperature of summer exposure to cold and dampness, foreign substances ingested in intestines, such as fish bones, hard kernels of fruit, coins, stones, etc.

The similarity of symptoms in all inflammations of the intestinal tract renders them rather difficult of differentiation, and diagnosis uncertain, but a careful observer may distinguish this from typhoid fever by the prodromes in the latter, the gradual rise in temperature in typhoid fever, and the eruption; the points of difference in this from dysentery and peritonitis, by the distinct peculiarities of the two latter affections. The prognosis is generally favorable.

THE TREATMENT.

The treatment consists of thorough manipulations of the neck, stretching up, with hands at the occiput and under the chin, turning slightly while extending the neck, raising the clavicles, gently vibrating the abdomen, lightly at first, continuing the process for several moments; then turning the patient on one side, pressing the thumb and finger on either side of the spine with one hand, taking hold of the ankle with the other hand, gently pulling the limb backwards, pressing at the same time along the sides of the lumbar spines, beginning at the sacro-lumbar junction, and moving upward about an inch each time the limb is retracted. The pulling backward must be done very gently, for the pain will not permit severity. The splanchnic area should receive special attention next, treating back from the fourth dorsal to the tenth, pulling the arm up strongly each move made. The treatment should occupy about twenty minutes each time, and be repeated every six to eight hours. Flushing the bowels and drinking hot water, as directed for typhoid fever, should be observed strictly. For any fever, treat as directed in the vasomotor area three to five minutes.

CROUPOUS ENTERITIS—OR MEMBRANOUS ENTERITIS.

This is an inflammation of the mucous membrane of the intestines, of a croupous character, characterized by a whitish gray covering of the mucous membrane, firmly adherent and cemented together, and fastened to the intestine by rootlets dipping down into the intestinal follicles; characterized also by feverishness, soreness and distension of the abdomen, and pains more severe around the umbilicus, and tenderness, occurring in paroxysms, continuing for half an hour or so each time, lasting for a day or two, followed by looseness of the bowels, and each stool accompanied with tenesmus and severe pain, the stools containing mucus, with or without blood; and generally casts of mucus, cylindrical, like the mucous membrane of the bowels, come away in the discharges, leaving a feeling of raw soreness, although great relief ensues when these shreds or casts are expelled. This soreness may continue for a day or two afterward. These paroxysms may occur at intervals of a week or two, or they may not occur for longer periods—may be not for a year or two. The stool characterizes it from flux as well as from peritonitis. It is recognized as a most difficult disease to cure by the regular medical profession. A diet without fecal-forming material is recommended. It is said that it is a disease especially confined to adult life.

The causes are attributed to a peculiar state of the nervous system. That is singular, surely. What is that peculiar state of the nervous system? And yet opium and morphine, as well as hydrargyri chloridum corrosivum and liquor potassium arsenitis are recommend as prophylactics. Is it any wonder that the people are tired of doctoring?

THE TREATMENT.

This disease requires a general treatment, beginning at the vaso-motor area. Hold it for two to five minutes, and then manipulate the neck carefully, slowly, deeply, moving all of the muscles, raising the clavicles, the arms slowly to the side of head, pressing on the sides of the spinous processes firmly, and down as far as the tenth dorsal, then treat up from the sacrum to the twelfth dorsal; then, with patient lying on the back, gently vibrate with the hand the whole abdomen, beginning low down on the left side, moving to the right with the hand over the whole body, easily, slowly and persistently for several minutes; then turn the

patient on the side, stretch the lower limbs backward, holding the fingers and thumb against the lower, lateral lumbar spines, moving the hand upward each time the limb is retracted. Treat the lower limbs carefully and thoroughly, and especially empty the saphenous and other veins of the limb. An all-round general treatment should be given once a day. Special treatment of the vaso-motor and treatment in lumbar area upward, and on abdomen by gently kneading and vibratory movements, may be used every four to six hours. Hot applications to the abdomen will not be amiss for the soreness, and hot water injections should be used once or twice a day. Give no food of any kind until the tongue cleans off and the patient feels hungry. Let the feeding go until nature demands it.

DIARRHEA.

This affection is characterized by loose, alvine discharges, without tenesmus (griping), and generally due to functional or organic derangement of the digestive organs. It is frequently an accompaniment of typhoid fever, albuminuria, pyaemia, and tuberculosis. It is due to nervous shock, mental shock, atmospheric changes, change of diet, water, etc.

It may assume two forms—acute and chronic. There are recognized four divisions: Feculent Diarrhea, Lienteric Diarrhea, Bilious Diarrhea, Chronic Diarrhea.

Feculent.—That variety wherein feculent stools are discharged, attended after a short time with colicky feelings, pains, flatulency, with frequent desire to stool, and pain, relieved for the time by the stool. After four or more stools, they become lighter. This form is most usually the result of overeating, eating too rapidly, or ingesta of indigestible substances, and frequently from worms in the intestinal tract.

Lienteric.—This is characterized by frequent discharges of loose, undigested food—unassimilated food. The stools may contain mucus, covered with serum and bile, and may be mixed with undigested food. The peculiar characteristic of this form is that the patient emaciates rapidly, the irritable undigested food producing increased peristalsis, and all of the contents of the bowels are rapidly evacuated.

Bilious.—In this variety the stools are usually green or yellow, and passed with a scalding sensation at the anus, and more or less griping pains in the abdomen, owing to the excessive

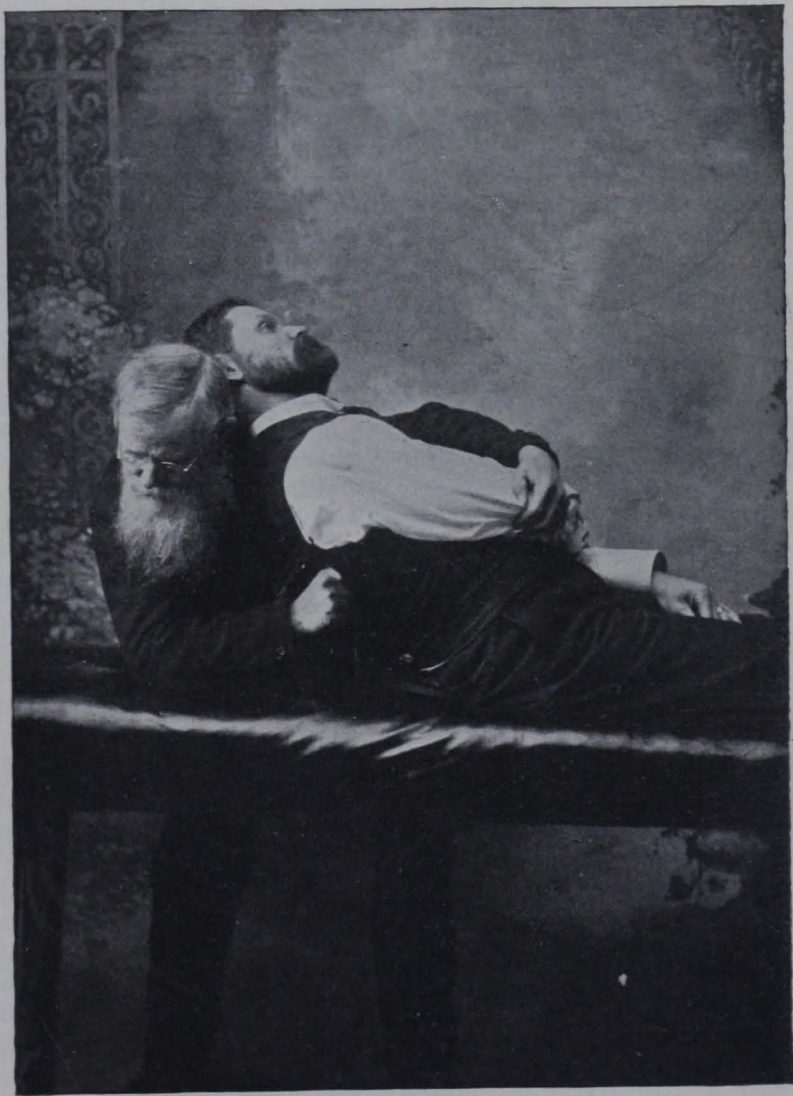
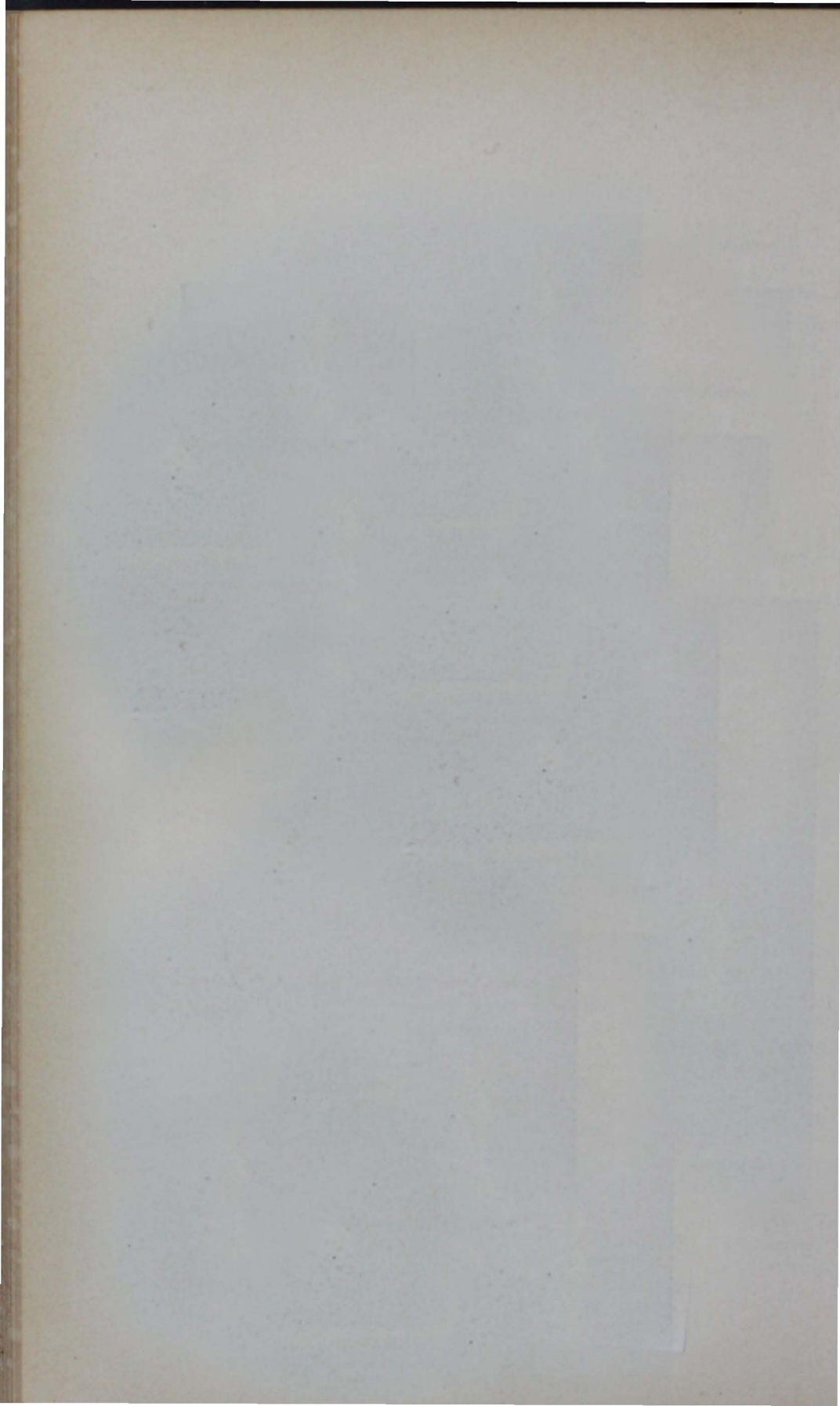


PLATE LXV.—Showing Plate LXIV. Continued.



biliary secretion mixed with the food. These discharges may be accompanied with or without nausea or vomiting, and any of them may merge into a chronic form, or frequent attacks of the acute form assume a chronicity by their frequency and persistency.

Chronic.—The main peculiarity is the similarity of the stools to the acute, except the stools may be changed to a pale color and assume the characteristics of a flux and present dyspeptic symptoms. Continual anemic conditions, varied appetite and chronic dyspeptic conditions are often notable and persistent for years.

THE TREATMENT.

When considered in the light of comparison as regards efficacy in the cure of these affections, the Regular School treatment stands in about the same relation to the Osteopathic that the "tallow-dipped candle" does to the modern electric light on a dark night. Our treatment wholly eclipses any other ever discovered or known to humanity. If some people even now were to be told that diarrhea could be cured in five minutes, many cases of it, with a single treatment, they would at once say it could not be done, and denounce the proclaimer a fit subject for an insane asylum. To think of such a boon to humanity—a positive, proven fact—being spurned by those who "compass sea and land" to find some specific remedy that will surely cure diarrhea! To pass by this and denounce it as a "fraud" looks so unreasonable that we refrain from giving them the castigation they deserve. A trial—yes, even one correct application—of this science to this one condition alone will convince the most skeptical of its efficacy. The very many instances of entire immunity at once places this at the head of all heretofore known remedies. To think of the grief and tears of many mothers over the loss of little loved ones, whose small mounds mark their silent resting places in the lonely charnel house of the dead, who might have lived many days to cheer them in their declining years had they been treated Osteopathically! The thought of giving relief is that others may be spared a like fate through the new and natural method of curing disease! This volume will more than repay the purchaser for the outlay in the treatment of this one affection. To know how to relieve it is many times more valuable than a money consideration, even in the "summer complaints of infants." It will be a great relief to mothers to be in possession of a remedy that will cure their babies in so short a time, so easily, and with so little inconvenience to themselves, and without distress or annoyance

to the little one. Then, to know that the treatment is equally as efficacious for all ages only adds intensity to the interest therein.

While it may be a matter of interest to the manipulator to ascertain whether there are "slips in the vertebrae" or a "dislocated atlas," and to find "a cold spot" on the surface somewhere along the side of the spinal column, yet it will be a more satisfactory desideratum to know that diarrhea can be cured without even knowing that such are the probable diagnostic signs of the prevailing affection. That is another attempt to wrap the science in mystery and to egotize self. The facts in the matter are, the splanchnic and pneumogastric nervous systems are involved in this affection—and what does the laity know about the solar plexus or "the abdominal brain" any way? If the reverse current is turned on, the wheels turn in the opposite direction, and to know how to turn the "crank" is to know how to direct the force.

In all lenteric troubles there is an excess of negative power. The alkaline elements predominate, and what is necessary to be done is to turn on the other current—neutralize the alkalinity. And inasmuch as pressure below the solar plexus, along the mesentery plexus, reverses the motion (reverses the peristalsis), and that we control precipitation through pressure along the left side of the lumbar vertebrae, our salient point is at the first and second lumbar areas. We use pressure there with the hand, knee, or the fist or fingers, bending the body backward at the same time, holding it there for a moment or so; we start the forces the other way; that is, arrest the onward peristalsis at once. After a move or two backward, with pressure at the point mentioned, the bowel should be held or gently pressed for a few moments, or manipulated from the left side in the sigmoid flexure region upward very gently for a few moments. The patient, lying on the back, may be treated as follows: Standing at the side of the table or bed on which the patient may be, place the hands on either side of the spinous processes, at the dorso-lumbar junction; then, pressing moderately with the finger tips, pulling outward therewith, raise the body from the bed and hold it suspended, so that the back of the head and feet only may touch the bed, holding it for a moment or two, repeating same once or twice, then holding the hand on the abdomen a short time. This will usually suffice for an attack of diarrhea. For children, take hold of the back of the neck with open hand, holding the child so as to secure action, and with other hand holding the feet, lay the body (back down) across the knee, resting weight of body on the lumbar region for a moment

or so. This stretches the mesenteric plexus, through the spinal sympathetic filaments. The influence is conveyed, action is had immediately. While it is a demonstrated fact that these manipulations cure, it should not be lost sight of that there may be a necessity for looking after the spinal vertebrae, and we would not underrate its importance, yet in many instances the cause of the affection is not due to a "dislocation of one of the bones of the spine," or diarrhea would be continuous in such an event. Our motto is, "Take off the pressure" everywhere, in the application of the principles of this science. The nervous system controls the body, and interference with its action produces pathological results, and it is our business to see to it that all disturbances of it be intercepted, so that there be no interference whatever anywhere. The harmonious action of the whole body depends altogether upon the nervous system being free to act in all parts of the body. The nerves control the manufacture of all of the secretions, the assimilation of the material from the product of the food, the building up of the waste, and the removal and reformation of it into new products that go to reconstruct the blood; and a perfect coordination is essentially required to promote that harmony in the system denominated health.

In severe cases of several days' standing, where patients are greatly emaciated, rest in bed is necessary, so that nature may have time to recuperate her powers properly.

There should be due regard for a restoration of the fluids of the body that have been wasted, and as water is the essential solvent of all ingesta, it should be furnished in due proportion and at stated intervals, compatible with the conditions found, whether by oral or anal orifice, or both. The water generally is more suitable hot. As much as will assimilate or be taken up without irritation or discomfort, should be the guide as to quantity, and the effects watched, in any given case. Food should be administered according to the state of the digestive organs, but hot water will usually satisfy the demands of the system until the tongue cleans off and the salivary glands are ready to secrete the necessary ingredients to mix with the food.

SPORADIC CHOLERA—CHOLERA MORBUS.

This is an acute catarrhal inflammation of the stomach and small intestines. The inflammation involves the mucous membrane, caused by the acrid secretions passing through and out of the intestine through the mucous membrane. It comes on suddenly, and with severe griping, abdominal pains, followed or accompanied with loose, watery stools, vomiting, cramping, cold, clammy perspiration, rapid emaciation, extreme thirst, feeble, rapid pulse, spasmodic cramping of the muscles of the abdomen and extremities, with increased prostration, often ending in collapse and death. It is extremely dangerous, baffling the skill of physicians and uninfluenced by medication. It is more liable to come on during the later summer months or in autumn, generally after the patient has been exposed to a cool atmosphere, after eating fruits, melons or trashy ingesta (a debauch), and usually in the early morning hours (about 2 o'clock A.M.) On account of its prevalence some years more than others, it is supposed that some specific cause induces it, or climatic influences tend to precipitate such a condition. Be that as it may, the condition of the person has much to do in its attack. There is no mistaking it for anything else. It has no uncertain symptoms. It completely takes possession of the person, like a thief in the night, stealing upon him at the dead hour of midnight, and grasping him at his very vitals, throws him into spasmodic muscular convulsions, rendering nerves and muscle and every tissue in the body wholly incapable of performing their normal functions. The discharges at first are the normal feces, but soon the tendency is to a watery consistency, increasing in whiteness, until finally the "rice-water" discharges become characteristic of cholera, hence the name, "cholera morbus." The patient rapidly loses strength and the body shrinks; cold, clammy sweat stands on the surface all over the body; pulse small and feeble; intense thirst is present, but liquids are ejected as soon as swallowed. A more doleful and distressed condition can not well be imagined, but this is no overdrawn description of the facts as they usually occur, often resulting in death in a few hours. The medical world has taxed its inventive genius for ages to discover a remedy that would cure this distressing and marvelously mortal disease, and found no specific in the way of medication until the Osteopath came upon the stage of life. If any evidence will convince the people or the medical fraternity of the efficacy of this system of healing, the cure

of cholera morbus ought to do so. It is the most complete success of anything ever discovered—the quickest, easiest, and therefore the best. There is such a similarity in this disease and Asiatic cholera that there need be nothing added to the description, nor need there be any difference in the treatment. The tendency of the watery portions of the blood to leave the solid constituents exists in both conditions alike, and the chemical affinity being restored cures the disease. The essential thing to do is to restore that affinity.

THE TREATMENT.

Place the knee or knees against the sides of the dorsal vertebrae at the junction of the dorso-lumbar vertebrae, take hold of the patient in such a manner as to bend the upper part of the body and lower extremities backward as far as the patient can comfortably bear, holding it in that position for a moment or two, and then let it resume its normal attitude; then repeat the process two or three times. Afterward place the hand next to the skin, and on the abdomen, pressing gently thereon for a moment or so, gradually increasing the pressure as the patient can bear it. This restores normal action of the bowels at once, arrests peristalsis, and starts the forces in the other direction. To stop the vomiting, should it not do so with this treatment, take hold of the right arm, raise it high above the head, pressing on the side of the spine hard, in the upper splanchnic region. These movements should be made slowly and steadily, giving the system time to respond before repetition of the move. The vaso-motor area should receive special attention in this affection. Treatment of the cervical region is especially recommended to equalize the circulation. The use of hot water is especially indicated, particularly the flushing of the bowel, having the patient retain it as long as possible. The introduction of the water through a rectal rubber tube several inches long is better than by the ordinary syringe nozzle, as desire to stool is thus avoided. Hot water drank freely will be admissible also. Remember that the stream of water in the system has run out, and a replenishing is necessary to redissolve the precipitated molecules of the elements in the blood and tissues.

The splanchnic and pneumogastric nervous systems are the two prime factors to be considered in the treatment of many pathological conditions, and in no condition have we such brilliant results as in cholera morbus! A union of these two forces reversing the current, produces the most radical changes that can

be imagined. Reverse action is at once established, and the flow reversed, starts the fluids the other way, naturally. The whole matter lies in the movement of the current, and that depends upon which way the "crank" is turned (or the crank turns it). Where does the laugh come in now? The State Boards and legislative lobbyists, all of them combined, never can devise or produce a remedy that will be so effectual as is that of the Osteopath in the prompt cure of cholera morbus. What benefit is it to delineate minutely the symptoms and pathological changes of a disease and then guess at a remedy? Where is the use of standing by and watching the course of the destructive character of a disease and do nothing to arrest its ravages? That same State Medical Board will cause to be enacted laws "regulating the practice of medicine," and measures to arrest those who are as honestly endeavoring to ameliorate the sufferings of mankind as they pretend to be. What right have State Boards to select my doctor and dictate the kind of medicine I shall have thrust down my throat? If I could, I would, with one fell sweep, abolish in every State such legislative excrescences and unjust proscriptive enactments, and leave the people the right of choice.

ENTERO-COLITIS.

An inflammation of the mucous membrane of the lower portion of the ilium and commencement of the colon or large intestine. Ulceration of the intestinal glands takes place if allowed to run on, and then the affection becomes chronic.

There are usually fever, sickness at stomach and vomiting, a diarrhea, tenderness and swelling of the whole abdomen, severe or dull pain and considerable emaciation, due to general breaking down of the mucous membrane; follicular enlargement, Peyer's patches tumified and the black points projecting above the mucous membrane presenting an ulcerated appearance. In the chronic form an intensification of the hypertrophy involving the deeper structure ensues, ulcers coalesce, patches of mucus peel off, leaving the surface down to the submucous coat bare, raw, sore. This is a disease of children, producing restlessness, fever, thirst, loss of appetite, nausea, vomiting, semi-fluid stools, frequent, greenish, sour; attended with large abdomen, much emaciation, crossness on the part of the child, peevish, and a reduction to early prostration, and if allowed to run into a chronic form, presents a

sallow, unhealthy skin of loose appearance, it hanging in folds or drawn tightly over and around the joints, face peaked, abdomen large and tender, and several stools day and night, usually preceded by rumbling in the abdomen, severe pains; a sudden loud, gushing stool relieves the distress, and the little sufferer relapses into quietude for some time afterward. Many children suffer from this affection, and it is regarded as a very serious condition, and usually proves fatal under the regular method of treatment by physicians, the child wearing out gradually until death closes the suffering. The numerous compounds and astringents, and the carefully selected measures, fail to arrest the disease. Here again we see the magic influence of Osteopathy. The idea of expecting an astringent to pass through the long intestinal tube, and the various mixtures of abdominal and intestinal secretions, to the seat of this affection, and affect the parts involved, seems to us the height of absurdity—and so it is, as proven by results. Where is the trouble from? What does the result have to do in the treatment, when the cause still remains—a separation of the two forces?

THE TREATMENT.

Take hold of the body of the patient on either side of the spinous processes at the dorso-lumbar junction, with the fingers of each hand, and raise the patient thus, the whole weight, keep it suspended for a moment, then let it down; repeat this process two or three times, and then place the hand on the abdomen gently, holding steadily, for two to five minutes, then gently manipulate the bowels and use the vibratory rotary movements of the hands a few moments; then raise the arms, treating from the first dorsal to the tenth vertebra, raising both hands up on either side of the head, lowering them each time, replacing the fingers along down the spine. This stops vomiting. The neck should receive gentle manipulations, beginning with the vaso-motor area.

After the stools are checked, it is a matter of much importance to nourish a patient. It will be remembered that when the skin hangs in folds, the watery portions of the system are nearly all evaporated, and the solid constituents of the body are precipitated. Circulation is therefore sluggish, the skin rough, scaly, dry and harsh, and soreness still present in the ileo-cecal region, the surface perhaps raw and exuding a muco-purulent secretion, and there is need of nourishment. Much judgment is to be exercised now. Begin with warm, sweetened water. Let the child drink or nurse it as warm as it can bear, as much as half

to one pint at a time; let it rest for four to six hours, then repeat the water. Mucilage of ulmus is the best food for a day or two, till the ulcers heal. The water is to be continued at intervals for at least twenty-four hours. Sterilized sweet milk is admissible; also barley and oatmeal mixed and boiled a long time and strained, and the serum therefrom given in proper quantities, but do not feed too much at a time, nor oftener than six hours. Satisfy the hunger by using the water. A bath in wheat-bran water daily will be found an excellent adjuvant to recovery.

It is to be hoped that the case will not run on under Osteopathic treatment until inflammation shall have been established, and the little one emaciated to the extent described above. Then there will not be so much care needed to raise one from the jaws of death. The system must have time to reinstate its lost powers, even after the treatment has united the forces.

CHOLERA INFANTUM.

This is defined as an acute catarrhal inflammation of the mucous membrane of the stomach and intestines. It usually comes on in the summer time, and is common with children during their first dentition, characterized by colicky pain in bowels and loose, watery discharges, febrile reaction and prostration. It comes on suddenly, with vomiting, purging, pains, fever and intense thirst, with rapid pulse, child restless, feverish, irritable, and rapidly runs into extreme prostration; mouth and lips dry, tongue parched, thirsty, cold, clammy sweat, contracted pupils, semi-comatose, and rapidly sinking into a low collapsed state. These characterizations apply to the severe cases, but in milder cases the picture is not so intense. The prognosis is usually doubtful. It resembles the cholera morbus in adults, and requires the same treatment. It is said by one authority that it is caused by "irritation of the sympathetic nervous system." The duration depends upon its severity, constitutional vitality, the character of the attack, and the treatment.

THE TREATMENT.

The treatment consists in bending the body backward gently, with pressure on either side of the spinous process in the dorso-lumbar region, or the lifting of the patient up, with the fingers pressing on the sides of the spinous processes in that locality, or by taking hold of the child's heels and back of neck, laying it

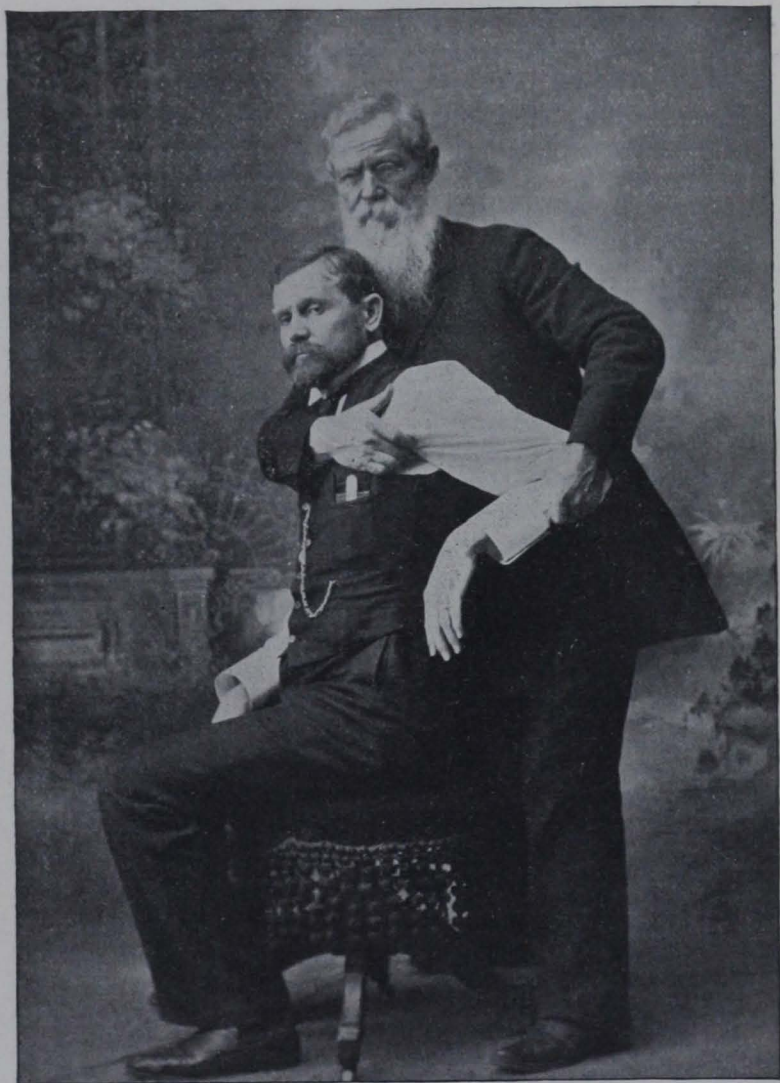
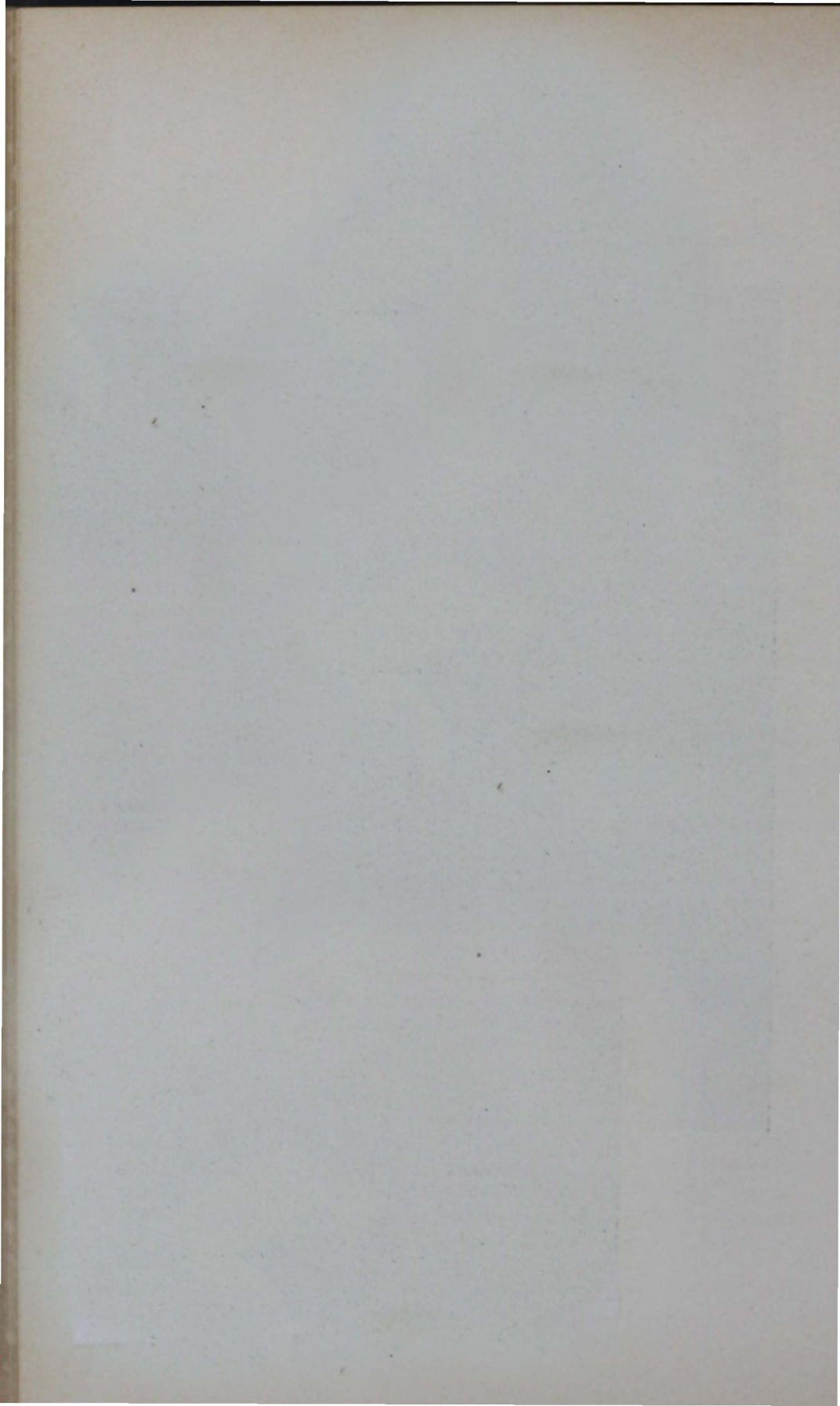


PLATE LXVI.—Showing How to Extend Pectoral Muscle.



across the knee, bending it gently backward, so that the weight of the child shall center on the small of the back—stretching the mesenteric plexus and the plexuses of the abdomen, and gently pressing and vibrating slowly over the same for a short time. This treatment ordinarily cures at once, in a very few moments. Should subsequent treatments be needed, they should be given in the same way. For the equalization of the circulation and reduction of the fever, should there be any, treat the vasomotor area a few moments in the usual way.

The child should be allowed to nurse as much hot water as is comfortably borne, sweetened so as to be palatable, instead of food, until the stomach has time to rest, waiting a reasonable time after the bowels have become quiet. Let the little patient rest. The mother is generally too anxious to "keep the little one from starving to death," not considering the ordeal the digestive organs have undergone (exhausted, and needing time to rest). Then do not permit an already worn-down nerve force to be imposed upon ere it has a breathing spell. The water is sufficient for dissolving the solid elements consequent upon watery exudation, and to restore their normal solution, so as to permit return circulation of the molecules necessary to recuperation. Wait, then. Sterilized milk or the mother's milk will be the diet needed, but not too often.

BLOODY FLUX.—ACUTE DYSENTERY.

This is an acute inflammatory condition of the large intestine, either catarrhal, croupous, or ulcerative in character, with fever, tormina, tenesmus, frequent small, mucous or bloody discharges from bowel. It occurs sporadically, epidemically or endemically.

CAUSES. Sudden atmospheric changes, hot days and cool, damp nights; errors in diet, drinking ice water when the system is too hot, or when fatigued; drinking water from wells and cisterns that is mixed with precipitants, vegetable decomposition, or clay, sand or dirt, without filtering, are attributed causes. Flux generally prevails at a season of drouth, when the springs and wells are scarce of water, much dust flying in the air, hot days and cool nights.

There are several forms of this affection—the Catarrhal, Diphtheritic, Tropical. It is not considered contagious, but is infectious. It is characterized by congestion of the mucous

and the submucous membrane, or tissue of the lower bowel, colon and rectum. Constipation usually precedes an attack. The irritation of the mucous membrane by foreign substances may be regarded as the starting point. It frequently comes from a lodgment of a foreign atom, such as an apple-core, in the mucous folds of the rectum; frequent discharges from the use of drastic cathartics; accumulated feces in the region of the sigmoid flexure. Congestion of ever so small a part of the mucous membrane of the large intestine may be sufficient cause to produce sloughing of the mucous membrane and give rise to serious consequences. The disease usually begins, however, with a diarrhea, loss of appetite, fever, nausea, which continue for two or three days, when the mucous discharges appear, with the peculiar tormina, tenesmus, and sick, fainty soreness in the lower bowel, pus and bloody stools, with severe pains in the hypogastric region, especially preceding stool and on movement.

THE TREATMENT.

It is stated by one author that "dysentery is one of the four great epidemic diseases of the world, and in the Tropics it destroys more lives than cholera, and has been more fatal to armies than powder and shot." The magnitude of it may in a measure be imagined. Its various forms signify nothing only as regards tissue involved, stage of the disease, mildness or severity. The treatment must be modified and applied according to the individual circumstances of the case, all things taken into consideration, whether the catarrhal, amoebic, croupous or chronic, and complications attending each variety. All cases should be attended to as early as possible, and the patient should be enjoined to rest quietly in as nearly a recumbent position as practicable, and to avoid mental worry, anxiety, fatigue, and exposure, indigestible food and excesses of all kinds. Keep quiet.

Presuming the patient is reclining on a couch or bed, the operator begins the manipulations by changing the current of the nerve wave by pressing hard and firmly in the region of the dorsal and lumbar junction of the spine, either with the knees or fingers, or, if a person light enough to raise, by placing the fingers on both sides of the spinous processes in that region, and bending the spine forward as far as practicable and holding the patient in that position for one or two moments, then repeating the same process two or three times. The same end may be accomplished by holding the clinched fist of the patient under the back at this region, on the left side of spine, for some minutes, if an adult.

The pressure should be steady, beginning moderately, and gradually intensifying it until relief is had. This treatment may be done by the patient himself oftentimes, with perfect satisfaction and assurance of immediate relief.

The gravity of this disease is such that the tendency is to want to resort to some remedy or compound in the shape of medicine, notwithstanding its almost universal failure. The human mind is so molded by habit, it seems so natural to "take something," that a resort is had to their old ways. When it is once known that Osteopathy, properly applied, cures without doubt, it will be sought by the afflicted, adopted, used.

In this affection, as in all other acute or chronic diseases, due regard should be had to the hygienic treatment, diet, etc. The discharges from the bowels should be removed from the room at once, the sheets and clothing properly aired, the room disinfected, and the body kept cleansed by proper bathing, daily, and the utmost strictness observed in regard to the administration of water. Hot water will be found the most soothing drink, and should be given in small quantities, often, satisfying as fast as possible the waste. Flushing the bowels once a day will be most soothing.

In further demonstration of the efficacy of taking off the pressure from the sympathetic nerve filaments, we will add another treatment that may not come amiss. The sympathetic nerves, as all nerves do, exercise their influence at their end bulbs, and as the filaments that terminate in the lower bowel in this affection are impinged upon, and infiltration of tissue by serous exudate separates these filaments from the terminal motor filaments, increasing the congestion of blood by lessening peristalsis in the arterial walls, a breaking-down of the tissue ensues as a consequence of decomposition of the elements in the parts. The indications are, "Take Off the Pressure." How is this done satisfactorily? We answer, By the bivalve. Divulse the sphincters gently, thoroughly, almost to paralysis, then inject as hot water as patient is able to bear, repeating the injection for several times at the same sitting, immediately after divulsion; and lastly, let a pint to three pints remain in the colon, then leave the patient to rest. This will cure almost every case in all stages of the disease. It is worthy of the most critical consideration and thorough trial. It is effectual.

TYPHILITIS.

SYNONYMS. Inflammation of the caecum; typhilitis stercoralis.

This is an inflammation of the mucous membrane and deeper structures of the caecum and ascending colon. The painfulness and tenderness in the right iliac region simulate those in typhoid fever, but the bowels are usually torpid, constipated, due largely to mechanical obstruction from accumulation of feces in the caecum.

The characteristic symptoms of this affection are, pain, tenderness and swelling, with some prominence of abdomen in the right iliac region, distension of bowels, meteorism; local pain is peculiarly characteristic. It is very likely to be diagnosed with the condition called appendicitis, but may be differentiated from it by the local prominence manifest in the region of the cecal valve, due to presence of feces therein. While in appendicitis there are pain, soreness, feeling of weight, tense, prominent abdomen and hard swelling in right iliac region, there is not the special prominence in the locality of the caecum as there is in typhilitis. Great depression of the vital powers ensues, proportionate to the tissue involved.

THE TREATMENT.

The patient should be placed on the back, with the hips a little elevated, and the operator should begin manipulating gently on the abdomen over the parts affected, vibrating with the open hand or fingers until the tenderness is somewhat overcome, then deeper and firmer, so that gentle pressure may be made, beginning in the right iliac fossae, pressing upward, following the course of the ascending colon, and across the transverse portion, then down the descending portion, moving the impacted feces forward, onward, downward. Vibrating over whole abdomen from right to left, kneading deeply yet gently, for fifteen or twenty minutes, affords relief at first sitting. The vaso-motor area and the whole spine are to be treated in the usual way, raising and stretching the serrati and intercostales, manipulating the liver, drawing up the abdomen from the iliac fossae as the patient strongly exhales. The intelligent Osteopath will not fail to meet the indications promptly. Flushing the abdomen is urgently recommended in such cases, and would better be done before manipulations begin. The treatment of the splanchnics should be made first of all the treatments. Gentle treatment,

general, should be given every day until cured. The kneading process should always be done with much gentleness and care. Roughness in manipulation is apt to be attended with after inflammation. Too much care in this regard can not be exercised in this or any other inflammatory condition. Toleration comes from gentleness to begin with. The primary object is to first remove the pressure from the lumen of the colon, then to take off the pressure producing the congestion in the walls of the intestine, so as to restore the normal function. These objects are accomplished by this treatment. It is often a matter of surprise to operator and patient to see the astonishing results of this treatment, even when other means have failed.

APPENDICITIS.

SYNONYMS. Inflammation of the appendix vermiformis; perityphilitis.

This is an inflammation of the appendix and connective tissue around and in the vicinity of the caecum (or localized peritonitis), eventuating in suppuration, sloughing or abscess.

The attributable cause of this condition is impaction of the appendix with a foreign substance in the canal. The symptoms are a feeling of weight, soreness and pain in the deep structure of the right iliac region, frequently accompanied with vomiting, tenderness to that extent that the right limb is kept constantly drawn up, to relax the abdominal muscles, in order to relieve pressure. The abdomen becomes tense, prominent, hard, tympanitic; a gradual rise of temperature and pulse, drawn, pinched countenance, indicative of intense suffering. The special tendency of the disease is to suppurate. Pronounced chills usher in this process, and followed soon by high fever and intense pain, throbbing and great restlessness. It is distinguishable from typhoid fever by a lack of prodromes; from typhilitis, by absence of colicky pains, and the tympanitis preceding the presence of the tumor.

As it is expected that the Osteopath will be able to cure this condition without a surgical operation to remove the offending member, it ought to be understood that sometimes a case goes beyond the purview of manipulations, and resort must be had to the knife; but in the great majority of cases, if taken in time, they are curable without surgery or surgical interference—a thing that is perhaps too frequently resorted to.

THE TREATMENT.

The attempt should be to speedily arrest the inflammatory process. This usually may be done by the following course of manipulations: Place the patient on the left side in such a position as to relax all of the muscles of the right iliac region, then begin with the vibratory movements of the fingers, as gently as possible at first, and gradually manipulating the deeper structure in that area until toleration is obtained; then have the patient take long, deep inhalations, while the intestines are gently drawn upward and out of the iliac fossae; then, continuing the manipulations over the abdomen so as to remove all the sources of congestion. Next, take hold of the right wrist, and stretch the muscles of the right side upward, thoroughly, strongly, and treat either side of the spine all the way down as the arm is raised and lowered, giving general treatment as indicated for such conditions, same as for other general conditions of inflammations in abdominal region, and be gentle, persistent, patient, thorough. Hot baths, hot water injection, hot local applications should be brought into requisition whenever indicated. The colon should by all means be flushed in this affection. The vaso-motor area should receive attention to control arterial circulation. Much depends upon the care of the patient, the gentleness of the manipulations in a case of appendicitis, as well as in all abdominal inflammations. No rough, bungling treatment should be indulged in for a moment. Discretion, caution, are necessary.

Treat the lumbar area thoroughly.

PROCTITIS.—RECTITIS.

SYNONYMS. Catarrh of the rectum; dysentery.

This means an inflammatory condition of the mucous membrane of the rectum and anus. The symptoms are pain, tenesmus, frequent stools of mucus, pus and blood, hardened feces, an uneasy, burning sensation in the rectum, stools wrapped with mucus, hard lumps passed with much straining and pain, frequently with prolapsus of mucous membrane at each stool. It is generally attended with constipation, enlarged prostate in the male, hemorrhoids, stranguary, and in females with prolapsus of uterus.

THE TREATMENT.

As in all other cases of inflammation, there has preceded it a state of congestion, and decomposition of the elements of the

blood and waste products are the result. The terminal end filaments of the sympathetic and motor nervous system have been denuded, separated, and an effort on the part of the system is taking place to restore the breach. The pressure still exists. What are the indications? Take off the pressure, send in healthy arterial blood to build up the tissue, furnish it the material. Regulate the circulation of the blood first. Stimulate the spinal nerves, the splanchnics, and treat the liver, stomach; manipulate the abdomen carefully and thoroughly, deeply; divulse the sphincters gently, strongly, gradually; bathe the parts with water hot as can be borne, using it freely with a fountain syringe, ten or twenty minutes at a sitting; then put into the rectum a teaspoonful of bovine after the bathing, three times a day. Bend back in lumbar region, gently, over knees, backward as strongly as patient can well bear for a couple of minutes once a day. Drink freely of hot water, rest quietly, breathe deeply several times at a sitting, and every three hours. Oxygenate the blood. Draw up the pelvic viscera from the iliac fossae carefully, when the patient is lying down and limbs flexed. Use gentle vibratory manipulations over the abdomen once a day at least. Careful and gentle divulsion need not be done oftener than every two or three days. This course will surely relieve the case and cure it in a short time. No medicines are required.

INTESTINAL OCCLUSION.

SYNONYMS. Obstruction; strangulation; invagination.

This occurs suddenly or gradually, and is attended with more or less pain, nausea, vomiting, a constipated condition of the bowels, and resulting in collapse, and death if not relieved. It has been attributed to accumulation within the bowel of hardened feces (an improbable result, truly), foreign bodies, stricture, ulceration, cicatrices, pressure against the bowel, strangulations, invagination, twisting of intestines.

With more or less suddenness of onset, this condition assumes grave characteristics. The site of the occlusion can rarely be exactly determined, but the pains gradually become intensified, tenderness in limited areas over the abdomen, and the stercoraceous eructations become characteristic, the abdomen becoming intensely hard, pulse rapid, feeble; cold, clammy perspiration all over body, cold extremities, constipated.

THE TREATMENT.

It would be useless to recommend the ordinary course of treatment pursued by medical men in this critical situation. It being a physical displacement, it requires physical manipulations to restore a normal condition. Under the old way of treatment it always has been considered a grave condition, but we hope to render it less so before we dismiss the subject. In the first place, the earlier the operator is called to see or treat the case, the more likely the success, or the sooner remedied.

To begin, however, stretch the abdominal muscles strongly upward, extending both arms strongly above the head, the patient lying on the back, with hips elevated a few inches higher than the shoulders, and both limbs flexed on the abdomen, and if possible, have the patient inhale deeply, retaining the air in the lungs for a half to one minute, while the arms are being extended. next, raise one arm strongly above the head, placing the fingers on the side of the dorsal vertebrae; press strongly, while stretching arm taut at the side of the head, and let it down rather suddenly, still holding the fingers hard against the back at the angles of the ribs in the splanchnic area. Now, with the patient lying on the back, with limbs flexed, vibrate carefully, over the abdomen, gradually increasing the force as much as the patient can bear without producing pain, and manipulate in the direction of the ascending colon, following it in its course; then gently knead the whole bowel, drawing it up from the iliac fossae, and use pressure along down the lumbar vertebrae and as low down as the last sacral, lifting all pressure from the nerves along the whole spine. Press gently on vaso-motor area for three to five minutes. Unite the two forces through the splanchnics. Lastly, have the patient lie on the left side and fill from a fountain syringe the colon full of water as warm as the patient can bear, and after it is passed out, repeat again, but have patient retain it as long as practical or possible. This mechanically assists in adjusting intestines. Turning the patient on the stomach or side and pressing against the lumbar region while the limb is drawn strongly backward, or away from body, in a circular-backward move, will be in the line of treatment, and greatly beneficial in adjusting the position of the abdominal viscera.

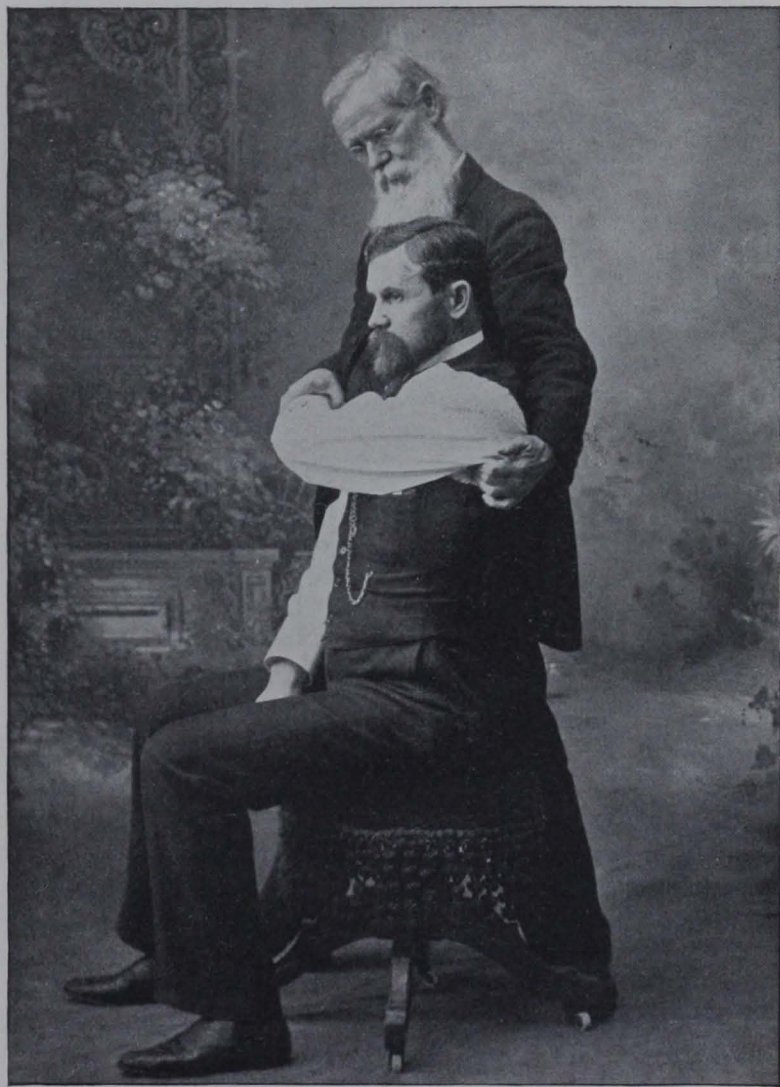
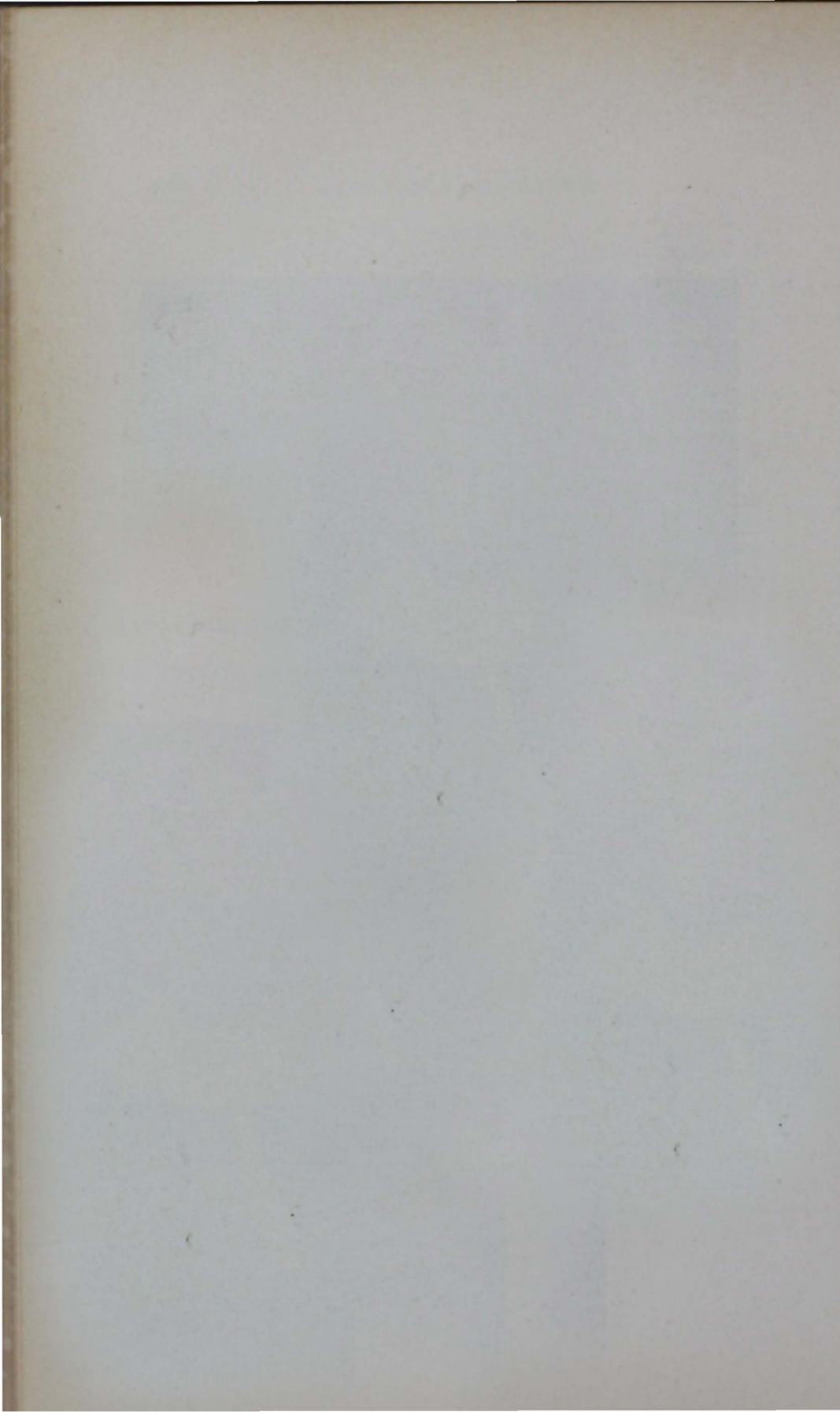


PLATE LXVII.—Treating Shoulder and Side Muscles.



INTESTINAL PARASITES.—WORMS.

The recognized varieties are *Taenia Solium*, *Taenia saginata*, *Bothriocephalus latus*. The *taenia solium* is the most common in this country. It is denominated the "armed tapeworm" on account of a double row of hooklets. The head measures about one-fortieth of an inch in diameter; head is globular in shape, slim neck, and gradually increasing in size as it merges into larger segments resembling gourd seeds, and these segments are joined together, and each segment contains a male and a female; and it is said that an ordinary tapeworm has about five million ova. This variety inhabits the upper portion of the small intestines. The hooklets are imbedded in the mucous membrane. Their presence is best determined by segments passed in the feces. It is thought that they are introduced into the stomach by food or drink. The *taenia solium* varies in length from a few feet to sixty feet or more. It is thought to come from pork, partially cooked. This variety is termed the *cysticercus cellulosus*.

The *tenia saginata* is an unarmed variety, derived from eating beef, and is termed the *cysticercus bovis*. The *bothriocephalus latus* is also unarmed, and is said to be derived from eating fish.

The symptoms of the presence of tapeworm are not always clear cut, but their actual presence is determined by segments being occasionally passed with the stools. There is usually colicky pain in the stomach and bowels, inordinate appetite, hunger for fatty diet, an all-gone feeling at the stomach, emaciation, continual fainty feeling that food satisfies for a time, emaciation, palpitation, and not infrequently pruritis at anus and nose. Many of these symptoms are present in disorders of the digestive tract when no parasites exist. The remedies that remove the one will remove all varieties. When present, it should certainly be gotten rid of.

THE TREATMENT.

The first and important thing to do for the removal of these parasites is to turn in on it the bile. The increased quantity of bile increases the peristalsis of the intestines, and often causes the worm to let go his hold, and the movement onward prevents his reinserting his hooklets in the mucous membrane, and thereby he passes from the bowel bodily. It requires three or four days' treatment of the liver to consummate the desired object. There are several mechanical means of removing it from the

intestine, and the choice is immaterial. The Felix mass (or ext. of male fern) is a popular means. A tea of the pomegranate root-bark is another means. Pepo Extract is another. Grated cocoa, eaten in large quantities, with a free use of sweet milk, is another method used. The active principle of granatum (pellitorine) is the surest remedy. If a normal circulation of the blood is kept up, parasites can not remain in the body. It will be found in all cases that the depression of nerve force exists prior to the existence of parasites of any kind, and needs righting. Sulphuric ether or chloroform, in ten-drop doses on sugar, with cathartic, is effectual.

The taenia solium, after it is a fixture in the intestinal canal, is only gotten rid of by positively removing "the head." The bowels should be thoroughly cleansed of all the fecal contents by mild mechanical means, such as Oleum ricina, and fasting for a couple of days, drinking freely of hot water, Osteopathically stirring up the liver and stimulating the splanchnic nervous area, and living on food that is taken up by absorption in the stomach. The rational treatment (increasing intestinal peristalsis), with the presence of bile, secures satisfactory results without any other agencies.

ROUND WORMS.—THREAD WORM.

Other varieties of intestinal parasites are, *Ascaris lumbricoides* and the *Oxyuris vermicularis*.

The ascaris is the most common variety that affects the human family. They inhabit the small intestines most frequently, although they are found in the stomach, and may be in the alimentary tract anywhere—even up in the throat. They vary in size, but measure from an eighth to a fourth of an inch in diameter, and are usually ten inches long, numbering in some cases several hundred in one person—even found in large "knots." The oxyuris (or thread worm) is denominated "seat worm," and resembles a white thread, and is usually quite small, measuring about a sixth to a half an inch in length. It inhabits the large intestine, and especially the rectum, sometimes completely covering the entire mucous membrane, and migrating to the genital organs, producing intense itching of the parts. These varieties are so common that a further description seems superfluous. Various means have been instituted to get rid of them. Like all other parasites that infest the human body, there is first a degen-

eration of the tissues of the body, and especially an unhealthy condition of the intestinal tract, that furnishes a breeding or generative spot for them before they enter therein, or before their presence is manifest. Chemical changes in the elementary constituents due to nervous depression result in a compatible resting place for them in which to live and generate.

THE TREATMENT.

Correct the digestive system. The overtaxed digestive organs must have rest. This is the first desideratum. Restore the nerve forces by treatment in the vaso-motor area, the splanchnics, along the lumbar areas, and right the torpid liver; arouse all of the secretions, the glandular organs from the salivary to the Peyerian follicles, and the lumbricales migrate for other climes. To remove worms and leave the digestive organs uncured, does no good. The vermicide most common and most effectual in the ascaris variety is Santonine. For the local removal of the thread worm, inject into the bowel or rectum lime water, from one to four ounces. This destroys them immediately. Then follow that up with salt water; one teaspoonful of salt to a pint of water is strong enough—effectual. The Osteopathic treatment should be used with an eye to restoration of normal digestive conditions. Then the worms will not be found to inhabit the intestinal tract.

HEMORRHOIDS.—PILES.

Before considering the pathological condition recognized as piles, it will be well to consider the venous system of that part of the body. The rectum derives its blood from the internal pudic artery, the inferior hemorrhoidal being a branch thereof. The veins begin at the lower end of the rectum, forming the superior hemorrhoidal veins, which unite to help form the inferior mesenteric and the middle and inferior hemorrhoidal, and these terminate in the internal iliac. The portal and general venous systems have a free communication by means of the branches composing this plexus. The hemorrhoidal branches from the inferior mesenteric inosculate with those of the internal iliac, and thus establish a communication between the portal and the general venous systems. Besides this anastomosis between the portal vein and the branches of the vena cava, other anastomoses between the portal systemic veins

are formed by the communication—between the gastric veins, which empty themselves into the vena azygos minor; between the left renal vein and the veins of the intestines, especially of the colon and duodenum; between the veins of the round ligament of the liver and the portal veins; between the superficial branches of the portal veins of the liver and the phrenic veins. It is a noted fact that the hemorrhoidal veins gather up all of the blood distributed there by the arterial system, and either empty it into the inferior mesenteric or the internal iliac, and anything that obstructs the normal return of the blood in any of the veins that return the blood from the lower extremities causes a varicose condition of the limbs. Any obstruction interfering with the return of blood through the iliac or mesenteric veins would cause the same or a similar condition in the veins of the rectum. This is denominated hemorrhoids or piles. Hemorrhoids is a varicose condition of the veins of the rectum. It is necessarily a result of an impingement of the sympathetic nervous system, which is generally due to a pressure on the return circulation of the venous blood. This may occur as a result of congestion of other and remote organs—the liver, the spleen, the colon, the sigmoid flexure; in the latter from the impaction of feces. Hemorrhoids are sometimes due to the effects of cathartics. Some agents (such as aloes) have a special influence in their production, by relaxing the tissue, mucous membrane and venous walls. Excessive irritation of the sphincter muscles, and pressure upon the inferior hemorrhoidal plexus of nerves, produce them. Inflammation or congestion of adjacent structures, interfering with the venous return circulation, may frequently become a factor in the production of hemorrhoids. Its removal cures the varicosity of the hemorrhoidal veins. Correcting undue sphinctral contraction frees the venous system and the veins disengage, the piles cease. Ostopathic treatment saves many a rectum from surgical interference by taking off the pressure that produces hemorrhoids.

THE TREATMENT.

An examination of the rectum should be made with a bivalve speculum, to ascertain the condition of the parts. If tumors exist, they will be found either above the internal sphincter muscle, on the muscle itself, or below, in which latter case there is usually more or less of knotty, lumpy projection outside of the rectum, in the form of a bluish colored, round, intensely sensitive, painful,

hard tumor. This is due to pressure on the vein above, holding the blood in the vein, dilating it by pressure of the blood within. Tumors formed between the folds or within the grasp of the internal sphincter muscle are usually pressed upward or downward, and form large or small tumors, according to the size of the veins involved; and the tumors formed above are generally due to pressure in the sigmoid flexure, or lower bowels, or pressure in the iliac fossa. The removal of the tissue involved to cure the piles is like removing the bottom of a vessel to get the contents out. If the pressure is removed, the piles remove themselves. There are so many ways for the venous blood to be emptied into the larger channels that it seems scarcely worth while to suggest a way to the intelligent anatomist, when he understands the philosophy of Osteopathic manipulations. To open up the normal channels and let the pent-up congestion flow out is the province of the Osteopath, and hence surgery is a useless *dernier ressort*.

If we find the cause to be constipation, the remedy is to cure the constipation. If the trouble comes from pressure upon the iliac veins, remove that. If from pressure on the inferior or superior mesenteric veins, remove that. If from enlargement of the liver or spleen, attention must be given these organs. Treatment of these organs is given elsewhere.

The ordinary treatment, Osteopathic, is made by the use of the forefinger, introduced into the rectum, the palmar surface turned backward, reaching up and backward above the internal sphincter muscle, and placed on either side of the coccyx, straightening that if necessary, or at least adjusting it to a normal curve, and using considerable pressure and pulling the muscular structure on either side of the coccyx sidewise and backward, stretching the internal sphincter, and pressing on whatever tumors are found in the rectum, slowly, gently, manipulating them till softened, and the blood is more or less removed from them—at one sitting; then gently withdrawing finger, with the thumb clasped against integument until the finger is drawn out of the rectum. This treatment should be repeated every three to five days until cured. By placing the thumb and fingers of the other hand on the outside of the sacrum and on the sacral nerves, pressing firmly, a condition of desensitization ensues, and the internal effects of the treatment become less painful. This treatment is done without the use of an anaesthetic.

Enlargement of the prostate gland is treated the same way—

only the palm of the finger is turned forward, and strong manipulations made outward on the sides of the gland, which reduce it wonderfully, even at one sitting. Use Vaseline as a lubricant for the fingers. This mixture is appropriate for use on the finger in the rectum: Pulv. opium, x. grs; tannic acid, xx. grs; vaseline, 1 ounce; mix.

HERNIA.

SYNONYMS. Rupture; a break.

This being such a common affection, and so little is done for it except along the line of "trusses" that we feel constrained to add in this book new suggestions of the possibility of relieving it by Osteopathic manipulations. To reduce it when "down," or to "replace it" during "strangulation," is no simple thing to do, until experience or instruction is had; so we are inclined to suggest the following. To reduce it, put the patient on the back, shoulders lowest if possible, or raise the pelvis, then have the limb flexed on the side of the rupture, catching hold of the limb as if treating varicose veins; firmly, gently, strongly flex the leg on the thigh, thigh on the abdomen, using the fingers of the hand in the groin to press around the hernia. Flexing a time or two usually reduces the hernia. To manipulate to cure the hernia is to be done by having the patient lie on the back, flex both limbs so as to relax the abdominal muscles, then knead the several muscles in such a way as to equalize the tension of their muscular fiber, and the rent is lessened as each manipulation is made. These should be made three times each week. Several cases have been cured by these means—this course. We surely advise all to faithfully try it. There is no reason that it should not be cured this way. Relaxation of the muscular fiber, due to straining, produces it; equalization of the force of retention will restore the condition, persistently followed. Try it. Free lumbar nerves.

DISEASES OF THE SKIN

To overcome the prejudice of the people concerning the use of salves, unguents, lotions and "blood purifiers" is the hardest task imaginable.

While the expression regarding spiritual things, "Ye make void the commandments of God by your traditions," has stood out in bold relief for centuries, there are few who draw consolation therefrom by a return to the commandment itself, and obeying it. When foreign substances are in the system, it continually seeks to rid itself of the annoyance; yet we stand aghast, watch it wriggle, suffer, exhaust itself in a vain effort, and instead of attempting to relieve the pressure, add more to it. How foolish! To make the country tillable, healthy, agriculturally profitable at the head of streams, to remove the water that dams up, backs up and covers the area, the rubbish farther down is removed, giving vent to the water along its course "to the sea," and then the utility of the soil is realized in rich harvests of golden grain. Apply the illustration to the human system: Take off the pressure across the veins, let the debris be carried out, back to the place of purification (the lungs), and the same effect is experienced. The whole philosophy of this science rests upon this principle, and that it may be carried out is the design of this treatise. Study every relationship of it to every condition found in the body, and apply it where applicable, and favorable results may be expected. The physician's quiver is usually a small one when it comes to prescribing for the various ills of the physical body. Some have few, some more remedies, but we venture the assertion that a larger area of the pathological conditions is attempted to be covered by a fewer number of remedies, with the ordinary physician, than are recommended (manipulations) by us to accomplish the object—remove the cause of trouble (a seemingly patent expression among doctors).

Whilst there may not be the slightest relationship of the remedies used by the medicine vendors to the object to be accomplished (and it seldom does it), yet the victim from habit gulps it down without a question or a doubt, thinking the doctor knows his business, and it is all right. True, isn't it? But if we show the "better way" it is regarded as an innovation, an infringement on

the long-established and time-honored rights of the learned medical profession that calls for summary vengeance at their hands. We feel assured that this prejudice (for it is nothing else) will yield as investigation is made. This science will stand all the criticism that a scrutinizing public sees fit to apply to it, and in the end stand out in bold relief as the greatest boon that was ever conferred upon mankind in the way of amelioration from physical ills! It is not questioned by those who know, and these are not a few, and the application is universally satisfactory.

DISORDERS OF SECRETION.

SEBORRHŒA.

SYNONYMS. Acne sebacea; pityriasis; tinea furfuracea; dandruff.

DEFINITION. A functional disorder of the sebaceous glands of the skin; characterized by an excessive and abnormal secretion of sebaceous matter, forming upon the skin either as an oily coating, or in crusts and scales.

VARIETIES. Seborrhoea oleosa; seborrhoea sicca.

CAUSES. In newly-born infants an increased secretion of sebaceous matter—the vernix caseosa—is a physiological process. The origin of the disease is for the most part illy understood, anaemia being a factor in many cases.

PATHOLOGY. Seborrhoea is a functional derangement of the glands; if it be allowed to become very chronic, there occurs atrophy of the glands and follicles.

SYMPTOMS. The affection may occur upon any portion of the body, its most frequent seat being, however, the scalp (seborrhoea capitis or pityriasis capitis), and next in frequency the face (seborrhoea faciei). Seborrhoea oleosa appears as an oily, greasy coating upon the skin, without hyperaemia, and not attended with itching. The secretion is of an oily character, the quantity at times being so great as to collect in minute drops of a clear, yellowish fluid upon the surface.

The most common seat for this variety is the face (seborrhoea faciei), and nose (seborrhoea nasi). Seborrhoea sicca consists in the formation of dry, more or less greasy, masses of scales, or crusts of a grayish, yellowish, or brownish-yellow color, having

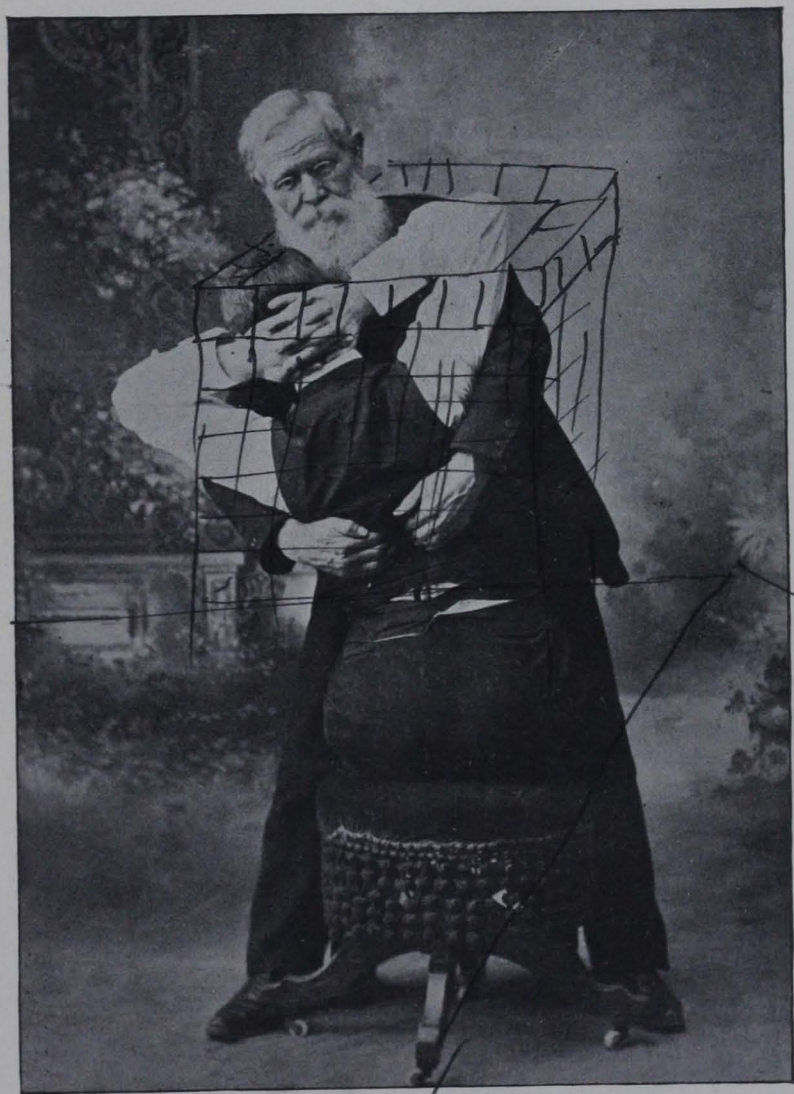
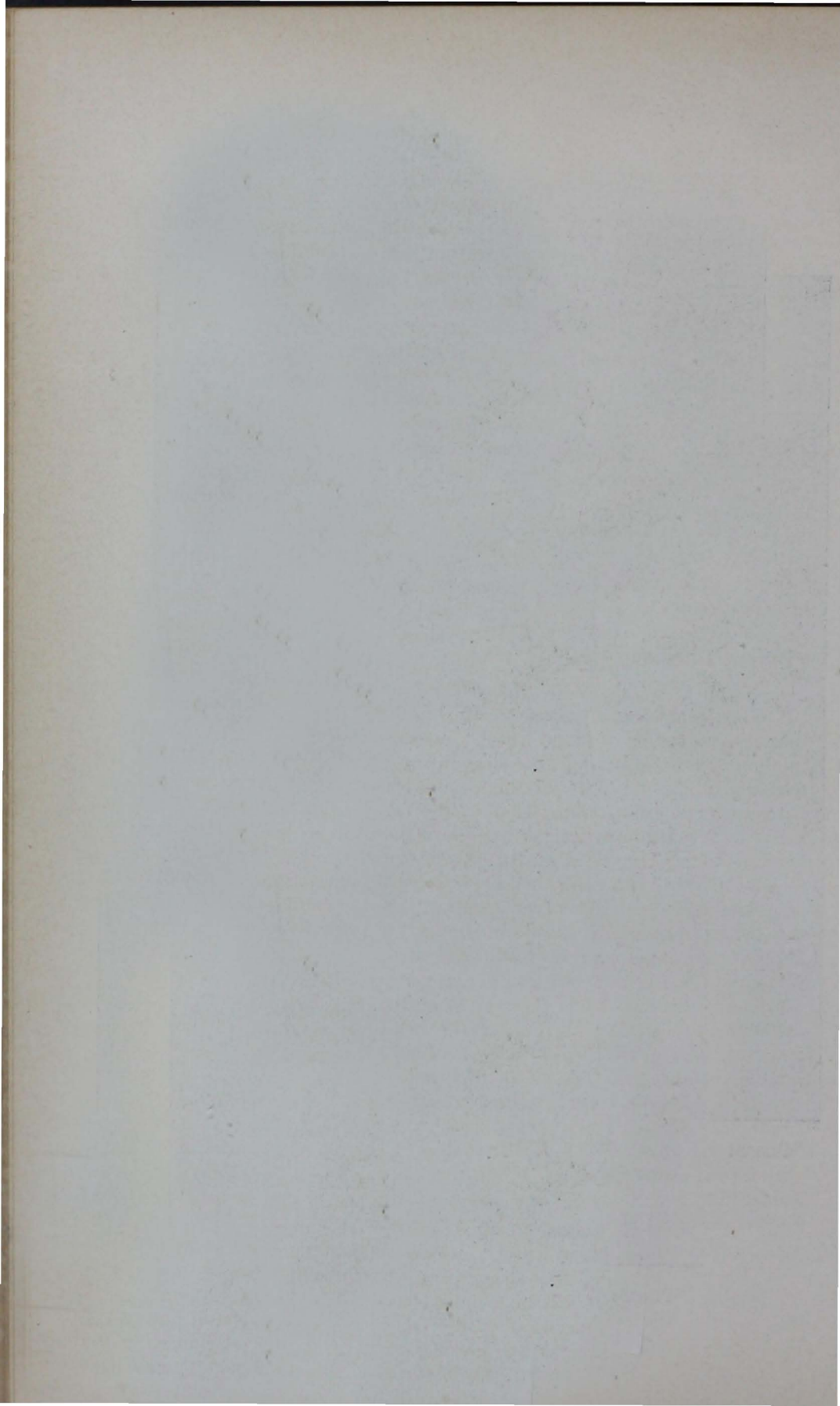


PLATE LXVIII.—Spine, Liver and Stomach Treatment.



a strong tendency to adhere to the skin, and attended with decided itching. Occurring upon the scalp—seborrhoea capitis—it is a frequent source of premature baldness.

DIAGNOSIS. Seborrhoea capitis may be mistaken for dry eczema, but the former is always a dry disease, while in eczema moisture has occurred at some period of the affection. The scales in seborrhoea are very abundant and pale; in eczema the scales are scanty and reddish, the parts irritated, infiltrated, and thickened.

Seborrhoea sicca and psoriasis have many points of resemblance, whether occurring on the scalp or on the body. In seborrhoea the scales are minute or caked, grayish or yellowish in color, of an unctuous feel, and usually uniformly diffused. In psoriasis the scales are very dry, abundant, thick, white, irregularly dispersed, with intervening healthy skin, and the surface beneath the scales is always reddish and inflamed. The clinical histories of the diseases are entirely different.

PROGNOSIS. If properly treated, favorable, although the affection is obstinate to eradicate.

THE TREATMENT.

The treatment, Osteopathically, consists of manipulations that effect a return of blood in the venoles, the waste material in the lymph spaces, through the larger veins, giving room for new material along the sides of the capillaries. This relieves the whole difficulty and restoration ensues. After so treating the neck, and extending same, raise the clavicles, chest and chest muscles, so as to give room to expand the lungs, that oxygen may be permitted to enter therein; make vibratory manipulations around the scalp or wherever eruption is. This soon starts up the vital forces and restoration ensues. It is unreasonable to suppose that an eruption would get well until the cause is removed—the obstruction.

In children this affection is quite common, and very annoying indeed. Osteopathy effectually cures it if applied three times a week, for it removes the condition called stasis, due to venous engorgement. The veins being the sewers of the system, the debris must be permitted to move on. Decomposition, the breaking-down of tissue, results from impeded circulation, and it must be removed bodily, physically, literally, then a normal condition (health) ensues speedily. Tissue elements may be lacking sometimes, then the proper one should be supplied, either in food or in substance. The Kali sulph. is the one in this case.

COMEDO.

SYNONYMS. *Acne punctata nigra*; black-heads or worms.

DEFINITION. A disorder of the sebaceous glands; characterized by retention in the excretory ducts of an inspissated secretion which is visible upon the surface as yellowish or whitish pin-point and pin-head-sized elevations, containing in their center blackish points.

CAUSES. Among the causes assigned are anaemia; menstrual disorders, urethral irritations, dyspepsia, and constipation.

PATHOLOGY. Comedo is an affection of the sebaceous glands and ducts, consisting of an accumulation of serum and epithelial cells in the glands and follicles, dilating the ducts to such an extent as to produce the point or elevation upon the surface. The obstructed gland may relieve itself, or it may continue distending until a papule is formed. The duct sometimes contains small hairs, and also the microscopic mite—*demodex folliculorum*—having a length of from 1-150 to 1-75 of an inch, and breadth of about 1-500 of an inch, which was at one time erroneously supposed to be the cause of the affection.

SYMPTOMS. Essentially a chronic affection, observed for the most part on the face, neck, chest and back. Each single elevation or black-head or point is designated a comedo, or if a number, in the plural, as comedones.

Each comedo is small, varying from a pin-point to a pin-head in size, having a brownish or blackish appearance, from the dust or dirt that has adhered to their unctuous surface. If they form in great numbers upon the face they are disfiguring, giving the individual the appearance of having had minute grains of powder implanted in the skin. There are no evidences of inflammation unless acne is associated, but, on the contrary, the skin has a dirty, greasy, unwashed appearance.

DIAGNOSIS. There is no condition resembling comedo, so that its recognition is easy, unless complicated with acne; but even then the inflammatory appearance of acne should prevent an error.

PROGNOSIS. Favorable, although often remarkably obstinate.

THE TREATMENT.

Nothing succeeds like success, and there is no success without favorable results of effort. The secretions in this affection become poisonous from lack of circulation, the deficiency of pan-

creatic secretion, and the over-crowding of the digestive tract with the fats. The splanchnic nervous system is at fault. The digestive tract should receive special attention until corrected. Bathe the face in salt and water (one teaspoonful to a pint of water) several times a day, and rest the digestive organs from one meal a day—breakfast is preferable—and the “black-heads” will soon be exchanged for normal, smooth, healthy skin. The glandular system acts normally when the pressure is removed and the normal elements generated in the system, or supplied when lacking. Proper vibratory manipulations should be made on the abdomen, over the liver, spleen, pancreas and stomach as often as three times a week, to cure such cases.

MILIUM.

SYNONYMS. Grutum; tubercula miliaria or sebacea; acute punctata albida.

DEFINITION. An accumulation of serum in the sebaceous glands which are minus their excretory ducts; characterized by the formation of small, roundish, whitish, sebaceous, non-inflammatory elevations, situated immediately beneath the epidermis.

CAUSE. The origin of the affection is nerve pressure of end fibers.

PATHOLOGY. The sebaceous gland is distended with the sebum, which is unable to escape, owing to the obliteration of the duct, nor can the contents be squeezed out, as no sign of aperture is to be found, the formation being completely inclosed. Rarely the retained secretion undergoes a metamorphosis into hard, calcareous, stone-like masses—sebaceous concretions or cutaneous calculi.

SYMPTOMS. Milia may occur upon any portion of the body; their usual seat, however, is upon the face, forehead, and about the eyes. They form gradually, are about the size of a millet seed, of a whitish, pearl, or yellowish color, hard, and of a rounded shape, giving the sensation to the touch of hard bodies embedded in the skin. They are not associated with inflammatory symptoms.

DIAGNOSIS. Milium and comedo are somewhat similar in appearance; the differences are that in milium the sebaceous gland is distended without an opening, while in comedo the duct of the gland is always patulous upon the surface. Milium

usually exists singly, the skin looking normal; while comedo is more general, the surface having a soiled and greasy appearance.

PROGNOSIS. Favorable.

TREATMENT. Same as for Comedo.

SEBACEOUS CYST.

SYNONYMS. Wen; sebaceous tumor; encysted tumor.

DEFINITION. A distension of the sebaceous gland and duct, with hypertrophy of the walls, which forms a thick, tough sack or cyst; characterized by the appearance of a firm or soft, more or less rounded tumor, having its seat in the skin or subcutaneous connective tissue.

CAUSE. Obstructed capillary circulation.

PATHOLOGY. Hypertrophy of the gland and duct walls, the result of pressure from the accumulated contents, which consist of the altered products of the sebaceous secretion.

SYMPTOMS. The development of wens is slow and insidious. The localities where they are most commonly developed are the scalp, face, back, and scrotum.

The tumors occur singly or in numbers, in size from a pea to a walnut, or larger, in shape either rounded, flattened, or semi-globular; in consistency they are either hard or soft, and doughy; they are freely movable and painless.

DIAGNOSIS. Sebaceous cysts may be confounded with fatty tumors.

TREATMENT. Excision and careful and thorough dissection of the cyst.

HYPERIDROSIS.

SYNONYMS. Hydrosis; ephidrosis; excessive sweating.

DEFINITION. A functional disorder of the sweat glands; characterized by an increased secretion of sweat. The sweating may be either general or partial.

CAUSES. Often undetermined; occasionally inherited; nervous derangements; malaria; diseases of the heart and lungs.

PATHOLOGY. A functional derangement of the sudoriparous glands, over which the vaso-motor system has control. The character of the secretion, chemically, may not differ from the normal.

SYMPTOMS. Universal general sweating, such as occurs during the course of pneumonia, rheumatism, tuberculosis, typhoid and other febrile maladies, can hardly be considered a distinct affection.

Hyperidrosis may be acute or chronic, the amount slight or large, being constant or paroxysmal, the extent general or local, and it may or may not be symmetrical.

Bromidrosis is the designation when the secretion has an offensive odor.

Chromidrosis is the designation when the fluid poured forth is variously colored. Uridrosis, when the excretion from the sweat glands contains the elements of the urine and particularly urea. Phosphoridrosis, when the perspiration appears luminous in the dark.

Local hyperidrosis occurs most commonly upon the palms, soles, axilla, and genitalia.

Hyperidrosis of the palms may be so profuse that the fluid accumulates and keeps the parts constantly macerated, the wearing of gloves being impossible, for as soon as the parts are wiped dry they are again bathed in the secretion. Jamieson states that hyperidrosis of the hands is very common in those who are daily excessive spirit drinkers.

Hyperidrosis of the soles is a disagreeable and often distressing condition, as the socks and shoes become saturated, and thus keep the soles constantly bathed, allowing the macerated epidermis to peel off, leaving a more tender skin exposed, causing pain and distress when walking. The maceration of the epidermis, the secretion about the toes, together with the moisture of the socks and the soles of the shoes, promote the rapid development of the bacteria foetidum; all these together produce a most disagreeable, disgusting, and persistent odor, which is termed bromidrosis pedum.

Hyperidrosis of the genitalia attacks males more particularly, giving rise to a disagreeable, penetrating odor.

The sweating may be limited to one side—unilateral hyperidrosis.

PROGNOSIS. The majority of cases are extremely intractable; complete recovery is rare in a fair proportion, while some cases are easily relieved.

THE TREATMENT.

After the general treatment to promote a free circulation of the blood, have the patient lie on the stomach, face down, and

finish up the treatment by vibrating the lumbar area upward from the sacro-lumbar to the dorso-lumbar region, deeply, firmly, slowly, for several moments, then use friction along each side of the spines upwards, with the fingers' ends, several times at one sitting. This treatment reverses nerve action, changes the condition and character of the circulation, and cures the case. Some cases require the Nat. mur. as a tissue-builder, and to supply the chloride of sodium molecules in the system. The 6x potency is the most suitable, and used in the form of tablets, trice, daily. The ordinary assimilable quantity of these triturations is two to four grains at once.

ANIDROSIS.

DEFINITION. A functional disorder of the sweat glands; characterized by a diminished or insufficient secretion of sweat.

CAUSES. The result of a congenital deficiency of the sweat glandular apparatus. Local anidrosis may result from injury to a nerve, during the course of chronic diseases of the skin, as ichthyosis, eczema, psoriasis, lepra, and elephantiasis arabum. In rare cases an individual ceases to sweat entirely at times; in such cases the general health is impaired, and during the hot season much suffering may ensue.

TREATMENT. Same as for Hyperidrosis.

SUDAMINA.

SYNONYMS. Sudamen; miliaria crystallina (Hebra).

DEFINITION. A non-inflammatory affection of the sweat glands; characterized by the rapid development of millet-seed-sized, translucent, whitish vesicles, in great numbers, upon any portion of the body.

CAUSES. A high temperature, causing unusual activity of the sudoriparous glands.

PATHOLOGY. The glands being excited beyond their capacity for normal excretion, the excessive fluid, instead of escaping upon the surface, from some cause collects between the layers of the epidermis, in the form of minute, translucent pin-point-sized vesicles.

SYMPTOMS. Each minute vesicle is distinct, but they exist in great numbers, very closely resembling drops of free sweat. They develop rapidly, never coalesce, become puriform, or rup-

ture. Fresh crops form from time to time. Their duration is transitory; the fluid is absorbed, the covering of each dries, forming a thin, delicate membrane, which disappears as a slight desquamation.

TREATMENT. Same as for Hyperidrosis.

HYPERAEMIAS OF THE SKIN.

ERYTHEMA SIMPLEX.

DEFINITION. An acute affection of the skin, in which occurs an abnormal quantity of blood in the dermal vessels; characterized by discoloration, which disappears upon pressure, and with more or less local increase of temperature.

VARIETIES. Idiopathic erythema; symptomatic erythema.

CAUSES. Idiopathic Erythema.—Heat, cold, pressure, friction, or the contact of irritants, such as mustard, arnica, and dye-stuffs. Symptomatic erythema occurs most frequently in childhood, from diseases of the stomach and intestines; during the course of the various exanthemata.

SYMPTOMS. A more or less rapidly developed redness of the skin, varying in color from pink or light red to dark red, which disappears upon pressure, to rapidly return again. The extent and form of the congestion vary according to the cause, at times being as small as a coin and isolated, and again diffused over a large area. The temperature of the congested part is slightly above the normal. Slight itching and burning are usually associated with the discoloration.

DIAGNOSIS. Erythema resembles acute dermatitis in color, but the subjective symptoms of the latter are so decided that an error should not occur.

THE TREATMENT.

The treatment demanded in this condition is the vaso-motor, and general treatment to equalize the normal circulation of the blood. Give attention to the digestive organs and kidneys.

INFLAMMATIONS OF THE SKIN.

ECZEMA.

SYNONYMS. Tetter; salt rheum; scall.

DEFINITION. A non-contagious inflammation of the skin; characterized by any or all of the results of inflammation, at once, or in succession, such as erythema, papules, vesicles or pustules, accompanied by more or less infiltration and itching, terminating in a serous discharge, with the formation of crusts, or in desquamation.

FORMS. Acute; chronic.

VARIETIES. Eczema erythematosum; eczema vesiculosum; papulosum; eczema pustulosum; eczema rubrum; eczema squamosum; eczema fissum; eczema verrucosum; eczema sclerosum.

CAUSES. Eczema attacks persons in all spheres, the rich, the poor, the infant, or the aged, and males or females. Many families, especially those having the "catarrhal predisposition or peculiarity of constitution," seem more liable; indeed, it appears probable that a predisposition to eczema may be transmitted from parent to child. Among the causes suggested are: dentition, improper food, gastro-intestinal disorders, intestinal parasites, deficient urinary secretion, the rheumatic and gouty diathesis, vaccination, prolonged contact of hot fomentations, heat and cold, and contact with the poison vine (*rhus toxicodendron*) and poison tree (*rhus venenata*). Obstructed circulation and nerve pressure, usually the splachnics.

PATHOLOGY. Eczema is a catarrhal inflammation of the skin—a dermatitis, with superficial serous exudation. There is first hyperaemia, or congestion of the vessels of the skin—eczema erythematosum, when uniformly distributed, eczema papulosum, when the congestion is limited to distinct points. The hyperaemia is soon followed by a serous exudation. If the superficial exudation be profuse enough to form small drops, and if the epidermis possess sufficient resisting power not to give away immediately before it, vesicles form, producing the variety known as eczema vesiculosum; if the vesicles contain a large admixture of young cells, so that if the serum be turbid, yellow, and purulent, the vesicles become pustules, termed eczema pustulosum; if the serous exudation be not sufficient to either elevate or break through the epidermis, instead of either vesicles or pustules forming there occur dry scales, rising from the reddened skin—eczema

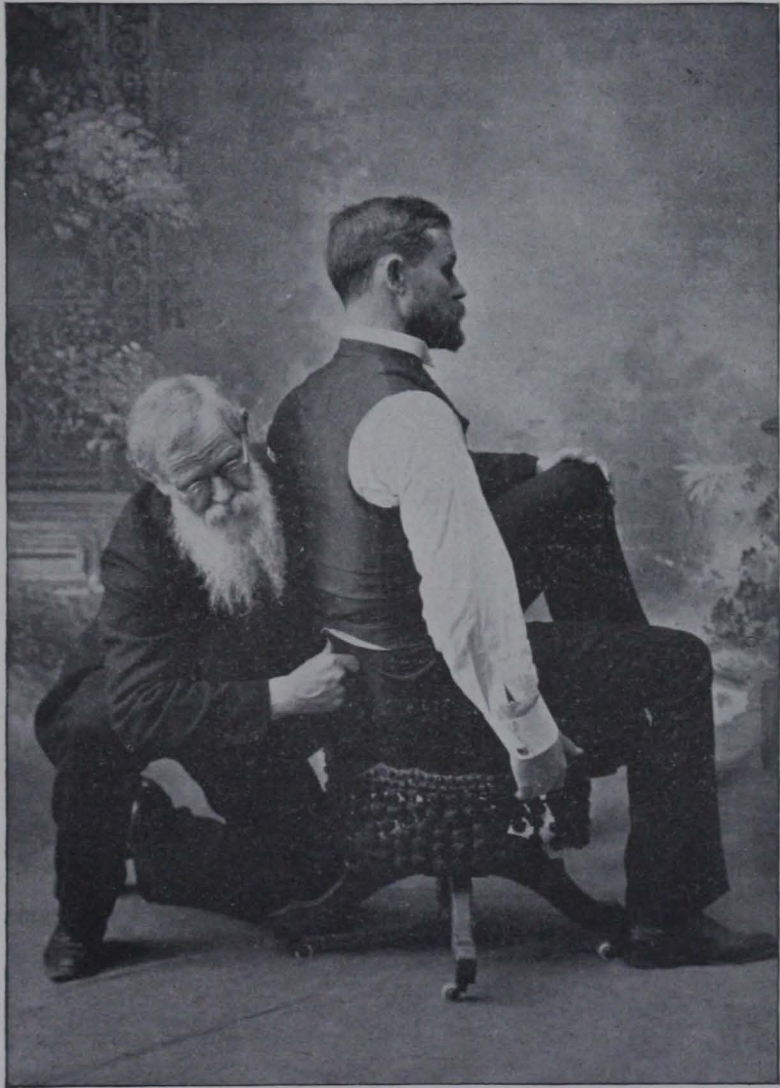
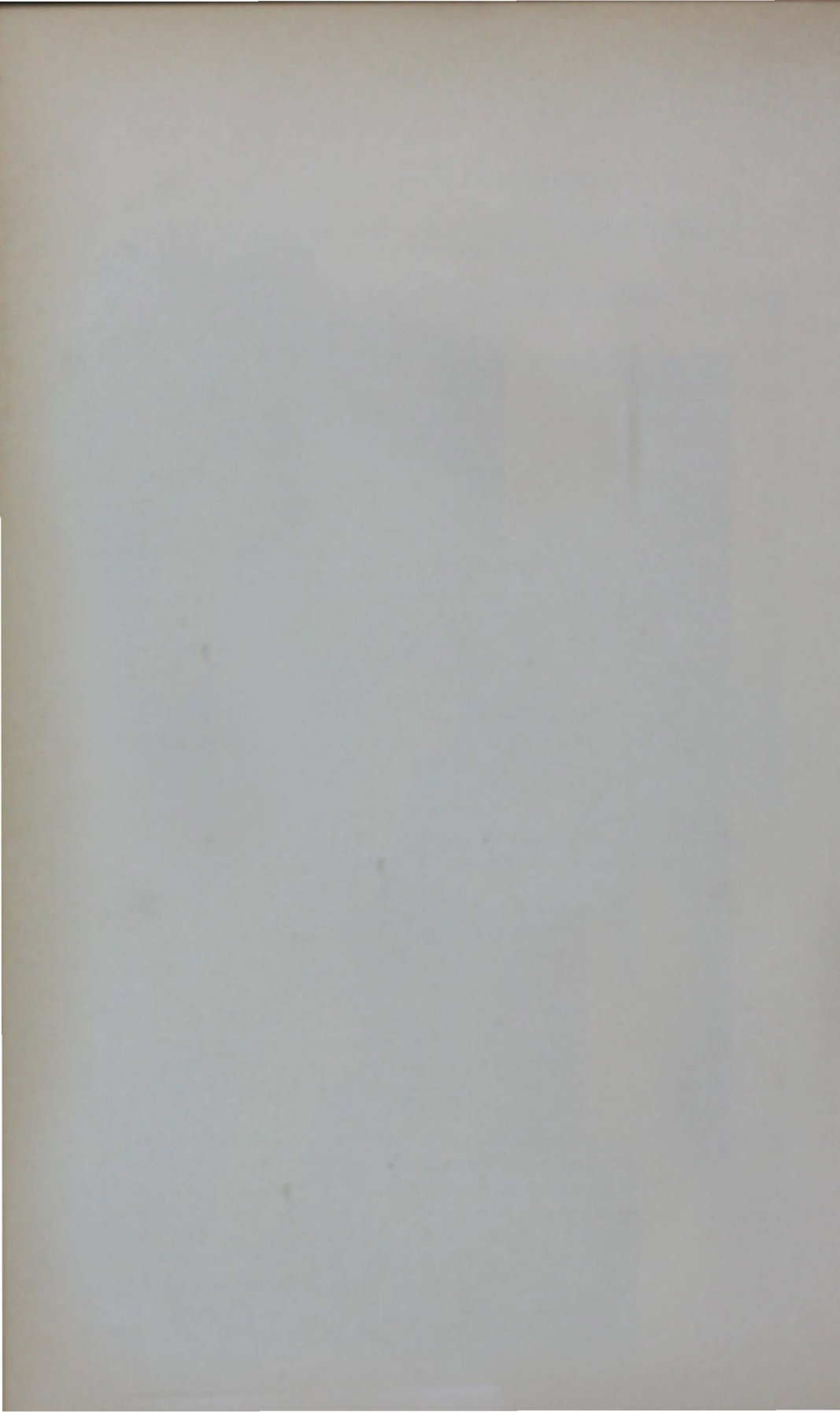


PLATE LXIX.—Manipulation of Locomotor Ataxia.



squamosum. When the exudation is sufficient to detach the epidermis, thus exposing the red and moist corium, it is termed *eczema rubrum*.

In chronic *eczema* the skin is subacutely inflamed; is very much thickened, hardened, and infiltrated with cells which extend throughout the entire corium, even into the subcutaneous connective tissue. The papillae are enlarged, and at times may be distinguished with the naked eye. Pigmentation may take place in the deep layers of the rete and in the corium, especially about the vessels.

SYMPTOMS. *Eczema* is the most common of all cutaneous affections, with symptoms varying in accordance with the particular variety of the affection and location, although the general characteristics of a catarrhal inflammation are present in all; these are redness, either limited or diffused; heat, of the part affected; swelling, the result of the serous exudation, giving rise either to a discharge (weeping), with subsequent crusting, or to the deposition of plastic material. The most constant, annoying, and troublesome symptom is the itching, or at times burning, which varies from that which is simply annoying to that which is almost unendurable.

Eczema runs its course either as an acute affection, lasting a few weeks, not to return, or to return acutely at wide intervals, or, as is much more frequently the case, it assumes a chronic state, continuing with more or less variations for months, years, or even a lifetime. It may appear upon any portion of the body, or involve the whole integument (*eczema universale*). The varieties are named in the order which the lesions assume at their commencement.

Eczema Erythematosum.—An erythema or redness of the surface, with a yellow tinge. The size of the macule may be very small, or quite extensive, with irregular outlines. There may be slight swelling of the patch, but no discharge occurs unless it be where two surfaces come into contact (*eczema intertrigo*), as about the genitalia. Cases without discharge are covered after a few days with a thin film of dry, exfoliating epidermis or scale (*eczema squamosum*). When a discharge (weeping) or moisture occurs, it is followed with more or less crusting.

Intense itching is a constant symptom.

Eczema Papulosum, or *Lichen Simplex*.—This variety of *eczema* appears in the form of small, rounded papules, the size of a pin-head, of bright red, or at times dark red color; they may be

either discrete or confluent. In some cases all, while in others a greater or less number, of the papules pass into vesicles and run much the same course as vesicular eczema. The itching is of the most intense character, leading to severe scratching, by which the summits of the papules are torn, causing them to bleed, the blood forming dark red crusts.

Eczema Vesiculosum—Begins with burning, pain, redness, and swelling, followed by an immense number of minute vesicles, either discrete or confluent, rapidly distending with a clear or yellowish fluid and attended with intense itching. Soon the vesicles rupture, the fluid rapidly diffusing over the surface and drying into yellowish, honey-like crusts. New crops of vesicles soon follow, or if subsequent vesications do not occur, the fluid rapidly diffuses over the excoriated surface, which also, in turn, dries into large, yellowish crusts. After a variable time the various symptoms gradually subside.

Itching is the most prominent subjective symptom, is intense, and gives rise to an irresistible desire to scratch.

All portions of the body are liable to this variety of eczema, the most frequent location, however, being the face, and when occurring in children is commonly known as *crusta lactea*.

Eczema Pustulosum, or Eczema Impetiginosum.—This variety usually begins as vesicular eczema, the fluid rapidly changing to pus. After a short period, during which the pustules have increased in size, they burst, and the escaped fluid forms thick, greenish-yellow crusts, which in turn, rapidly dry and fall off, or crumble away.

The location of the variety is most usually upon the scalp and face. It is stubborn to treatment. Itching is a prominent symptom.

Eczema Rubrum, or Eczema Madidans.—This is a variety only from a clinical standpoint. It may result from any of the foregoing varieties. The surface of the skin is inflamed and infiltrated, red, moist, and weeping, the profuse serum rapidly drying into thick, yellowish, greenish, or brownish crusts, the color depending upon the character of the fluid, which may be serum, pus, or blood from the exposed and lacerated corium. The crusts adhere closely and firmly to the part, and unless removed by mechanical means, may remain indefinitely, the disease pursuing its course beneath. *Eczema rubrum, or madidans*, "then, presents two appearances—as it occurs with its crust, and as it exists without this covering. In the one case the skin itself is altogether

obscured by a dirty, yellowish, or brownish crust; in the other the skin presents a bright or violaceous red, punctate, wounded surface, deprived in great part of its epidermis, and exuding a scanty or profuse, clear or opaque, syrupy, yellowish fluid. Sometimes this is streaked with blood." The itching and burning are severe. It may develop upon any portion of the body, but is most commonly seen upon the legs, particularly in elderly people. Its course is chronic and increasing in severity.

Eczema Squamosum.—This is also a clinical variety. It results from erythematous, vesicular, pustular, or papular varieties of the affection, but more particularly the first named. A typical case presents itself in the form of variously sized and shaped reddish patches, which are dry, or more or less scaly, the skin being more or less infiltrated or thickened. Its course is usually chronic.

Eczema Fissum, or *Rimosum*.—Another clinical variety. During the progress of the erythematous, vesicular, or pustular varieties of eczema, cracks or fissures result when the lesion occurs upon regions subject to constant motion, such as between the fingers, toes, and the various joints. At times the fissures are extensive and deep, and of a bright red color, showing the true skin, and intensely painful upon motion. Chapped hands are typical instances of fissured eczema.

Eczema Sclerosum.—This variety of eczema, occurring most commonly on the palms, soles, and finger tips, is characterized by hypertrophy of the papillae, showing itself as hard, thickened, infiltrated, localized patches, which are most apt to crack (*eczema fissum*).

Eczema Verrucosum, or *Papillomatosum*.—Differs from the foregoing in that the thickened, infiltrated patch has a warty, verrucous appearance. Its course is chronic.

Eczema Acutum et Chronicum.—The line which divides these two conditions is drawn by means of the clinical and pathological features. The course of eczema, in the majority of instances, is chronic. It may be said that so long as the general inflammatory symptoms are high and the secondary changes slight, the affection is acute, and that when the process has settled itself into a definite line of action, continually repeating itself and accompanied by secondary changes, it is chronic.

DIAGNOSIS. The many varieties in which eczema manifests itself render the diagnosis a matter of importance. The following characteristic features of eczema are of value in arriving at a

diagnosis: inflammation, swelling and oedema, thickening from cell infiltration, redness, the discharge of moisture, followed by crusting, on removal of which a moist surface is presented, and itching and burning.

Erysipelas may be confounded with erythematous or vesicular eczema. The points of difference are the fever and other general disturbances. The deep-seated inflammation of the skin, rapidly spreading, with heat, swelling and oedema without moisture, giving the surface a deep red, shining, and tense appearance, are characteristic of erysipelas and very different from eczema.

Herpes and vesicular eczema bear some resemblance to each other; herpes zoster is distinguished by the neuralgic pains which are associated with it, and are never associated with eczema. The other varieties of herpes occurring about the face and genitalia run their course in a few days, while eczema is of much longer duration, and has a discharge followed by crusting.

Seborrhoea of the scalp and squamous eczema of the same region closely resemble each other. In eczema, however, the skin is more or less red, inflamed, and thickened, and the scales larger, less abundant, and less greasy and drier than seborrhoea. In eczema the scales are usually seated upon a circumscribed patch, while in seborrhoea, as a rule, they cover the scalp uniformly. Itching occurs with both disorders. The history of the two affections should be of material aid to render the diagnosis clear; still, however, in many cases the difficulty is marked. Both are frequent affections.

Psoriasis should never be confounded with a typical case of eczema, but chronic eczema, with infiltrated, inflammatory, scaly patches, frequently looks very much like psoriasis.

THE TREATMENT.

The various forms of inflammations succumb to the treatment for restoring normal circulation over, in, and throughout the system. The means recommended should be used, and persistently applied result in amelioration, generally.

The tissue elements sometimes are indicated (the Kali sulph.), and attention to the terminal end filaments of the sympathetic nerves in the sphincters, the liberation of the obstructed venous channels, especially under the arms and in the angles of limbs, at the elbows, knees and at the hips.

The use of chloride of sodium for excessive moisture is indicated. The tissue elements should not be neglected. Certain food known to excite the skin should be avoided. Due attention

to cleanliness should be had. The use of salt baths (not strong) should not be forgotten. All of the varieties are usually amenable to general treatment persistently applied three times a week.

URTICARIA.

SYNONYMS. Hives; nettle-rash.

DEFINITION. An inflammation of the skin characterized by the development of wheals of a whitish, pinkish, or reddish color, accompanied by stinging, pricking, and tingling sensations.

CAUSES. Very frequently the result of sudden surface hyperaemia, or rather too rapid circulation through the superficial capillaries, the result of exposure to heat. Irritants and poison produce an attack when brought into contact with the skin. Gastric, intestinal, hepatic, nephritic, ovarian, uterine, and bladder derangements are very frequent causes. Certain medicaments; malaria; nervous disorders; associated with purpura and rheumatism; pregnancy; lactation; menopause.

PATHOLOGY. An acute inflammation of the papillary layer of the skin, characterized by the rapid development of a "wheal"—a more or less firm elevation—consisting of a circumscribed collection of a semi-fluid material, the result of a rapid exudation into the upper layers of the skin. The production of the wheal is the immediate result of a disturbance of the vaso-motor system, which is shown by the interference of the circulation in the wheal, the blood being driven from its center to its periphery, causing the whitish apex and red areola, so characteristic of the developed wheal.

SYMPTOMS. An attack of "hives" is characterized by the sudden development of wheals upon the cutaneous surface, which usually as suddenly disappear, their site being temporarily marked by a spot of redness or hyperaemia.

With the appearance of the wheal occur distressing itching, burning, tingling, crawling, pricking, and stinging sensations, to relieve which the patient still further irritates, tears, or otherwise wounds the surface by scratching, whence are often developed deep-colored, flat, lenticular papules.

Very frequently an attack of "hives" is associated with fever, headache, and gastric disorder. The "wheals" may appear upon any portion of the body; their size varies from that of a pea to that of a walnut or an egg—the "giant wheals"; the number vary-

ing from a very few to being so numerous as to cover the whole surface of the body. The shape, size, color, and number of the wheals that may occur in any given case have given rise to a number of names to designate the lesions. Thus, *urticaria annularis* occurs in rings; *urticaria figurata* occurs in spirals; *urticaria vesiculosa* has a vesicular development at the summit of the wheal; *urticaria bullosa*, a bullous development at the summit; *urticaria papulosa*, or *lichen urticatus*, the wheal and a small papule are combined; *urticaria tuberosa*, or giant wheals; *urticaria hemorrhagica*, or *purpurta urticaria*, a combination of *urticaria* and *purpura*; *urticaria evanida*, a rapid appearance and disappearance of the lesion; *urticaria perstans*, slow disappearance; *urticaria conferta*, when the wheals are confluent; *urticaria pigmentosa*, where the wheals are succeeded by pigmentations of the site, the tints varying from dark brown, greenish yellow, to a chocolate color; *urticaria febrilis*, when the wheals are associated with fever; *urticaria ab ingestis*, when associated with indigestion.

THE TREATMENT.

The treatment to consider first is the digestive tract, especially the stomach, and the arrest of the capillary congestion in portions of superficial capillaries. This is done by increasing the general circulation by general treatment. All difficulties of this sort are due to indigestion or a peculiar idiosyncrasis, that of certain ingesta, and more especially salads, fish, etc.

We have used the third potency of *Rhus. tox.* in the active, itching stage. *Kali sulph.* is a good remedy. The restoration of general circulation seems to be effectual. Treat the splanchnics to establish digestion, as directed elsewhere. Take off the pressure from nerves.

HERPES.

DEFINITION. An acute inflammation of the skin, characterized by the development of one or more groups of vesicles, filled with a clear serum, occurring for the most part about the face (*herpes facialis*) and genitalia (*herpes pro genitalis*).

CAUSES. *Herpes facialis*.—During the course of febrile and nervous disorders; in connection with digestive disorders and colds. *Herpes Progenitalis*.—The origin is local, from uncleanness or friction.

PATHOLOGY. Hebra defines the various forms of herpes as

"a series of acute cutaneous diseases of cyclical course, marked by an exudation which collects in drops under the epidermis and elevates it; forming vesicles which are never solitary, but always appear in groups."

SYMPTOMS. The appearance of the vesicles is usually preceded by a feeling of heat in the region, together with slight tumefaction or swelling. Rarely the herpetic attack is attended with malaise and pyrexia. The eruption usually appears in the form of a small cluster of pin-head to split-pea-sized vesicles, containing a clear fluid, becoming cloudy, afterward puriform, and dries in small, yellowish or brownish crusts; they are few in number and may coalesce. They disappear without leaving a scar. Herpes facialis occur upon any portion of the face, but most frequently about the lips—herpes labialis. The alae of the nose, auricles, and the mucous membranes of the mouth and tongue are frequent locations, in the latter appearing as excoriated patches from rupture of the vesicles.

Herpes Progenitalis.—In the male the chief site is the prepuce (herpes praeputialis). In the female they are comparatively rare; but when occurring, it is upon the labia majora and minora and the skin about the vulva.

This variety is preceded by burning, itching, or neuralgic pains, accompanied by redness, congestion, and more or less oedema. The lesion in these parts is likely to be mistaken for one form or other of venereal disease.

Herpes Gestationis.—A rare affection of the skin occurring during pregnancy, consisting of erythema, papules, vesicles, and bullae, attended with intense burning and itching. It may appear at any time of pregnancy up to the seventh month, and continues until some time after delivery.

THE TREATMENT.

Everything from a "black cat's blood" to hydrargyri chloridi mitis has been used for "shingles." Nothing is so effectual as our method of restoring the normal circulation. Arousing the glandular system to normal action, and connecting the nerve filaments of the motor and sympathetic nerves, remedies all the trouble. Chloride of sodium is deficient in the elementary constituents—use it; arouse the circulation of lymphatics and venous blood; vibrate the parts around the sides of the pustules, and finally on them, daily, and then every other day, until entirely relieved.

Miliaria, Pemphigus and Impetigo should receive a like treatment as Herpes, locally and generally.

HERPES ZOSTER.

SYNONYMS. Zono; shingles; a girdle.

DEFINITION. An acute, inflammatory disease; characterized by the development of groups of firm and distended vesicles situated upon inflamed bases corresponding to a definite nerve trunk, and accompanied by more or less severe neuralgic pains.

CAUSES. The eruption and consequent neuralgic pains are the immediate result of an inflammation of the ganglia or of the nerve trunks and branches—a neuritis—probably of the trophic fibers of the affected part; but the cause producing this condition is obscure. Among the many that have been suggested are: cold, injuries to nerves, anemia, and the medicinal use of arsenicum.

PATHOLOGY. An inflammation of either the ganglia, the nerve trunk—probably the trophic system—causing the development of vesicles in the lower strata of the rete, with infiltration of serum.

SYMPTOMS. Begins with neuralgic pains, either of the burning or lightning-like character, with slight febrile phenomena, followed by the appearance of papulo-vesicles along the tract of pain; these soon become vesicles situated on bright red, highly-inflamed bases. The vesicles are about the size of pin-heads, or perhaps a little larger, usually discrete, although they frequently coalesce, forming irregular patches, coming in groups until the third to the fifth or even tenth day, when they gradually dessicate, and at the end of the second week nothing remains but a slight scar, which may also disappear after a time or, rarely, is permanent. When the eruption is at its height it is perfect in its anatomical formation, each vesicle being well-shaped and seated on a bright red, inflamed patch of skin, and distended with a translucent, yellowish fluid.

The eruption is almost invariably confined to one side (unilateral) of the body, although, in rare instances, it is seen upon both (bilateral) sides. It is usually found upon nerve tracts. According to the region affected, it is termed zoster capitis, zoster frontalis, zoster faciei, zoster ophthalmicus, zoster auricularis, zoster nuchae, zoster brachialis, zoster pectoralis, zoster abdominalis, zoster femoralis.

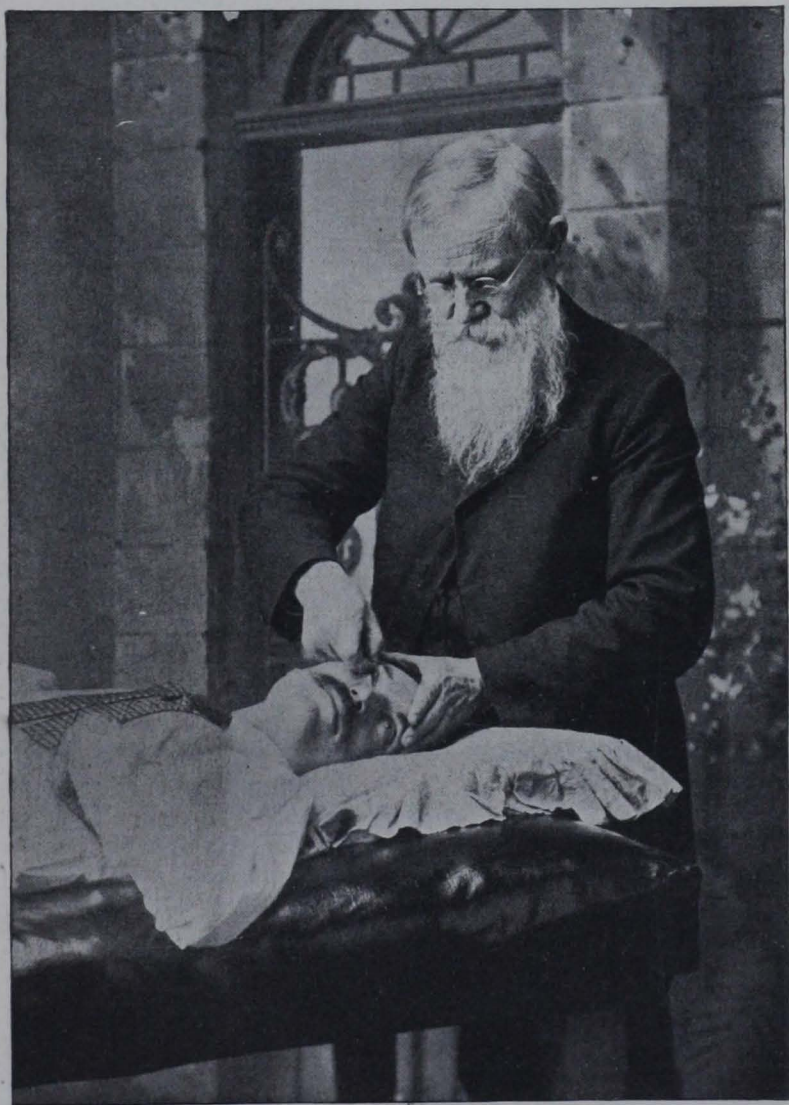
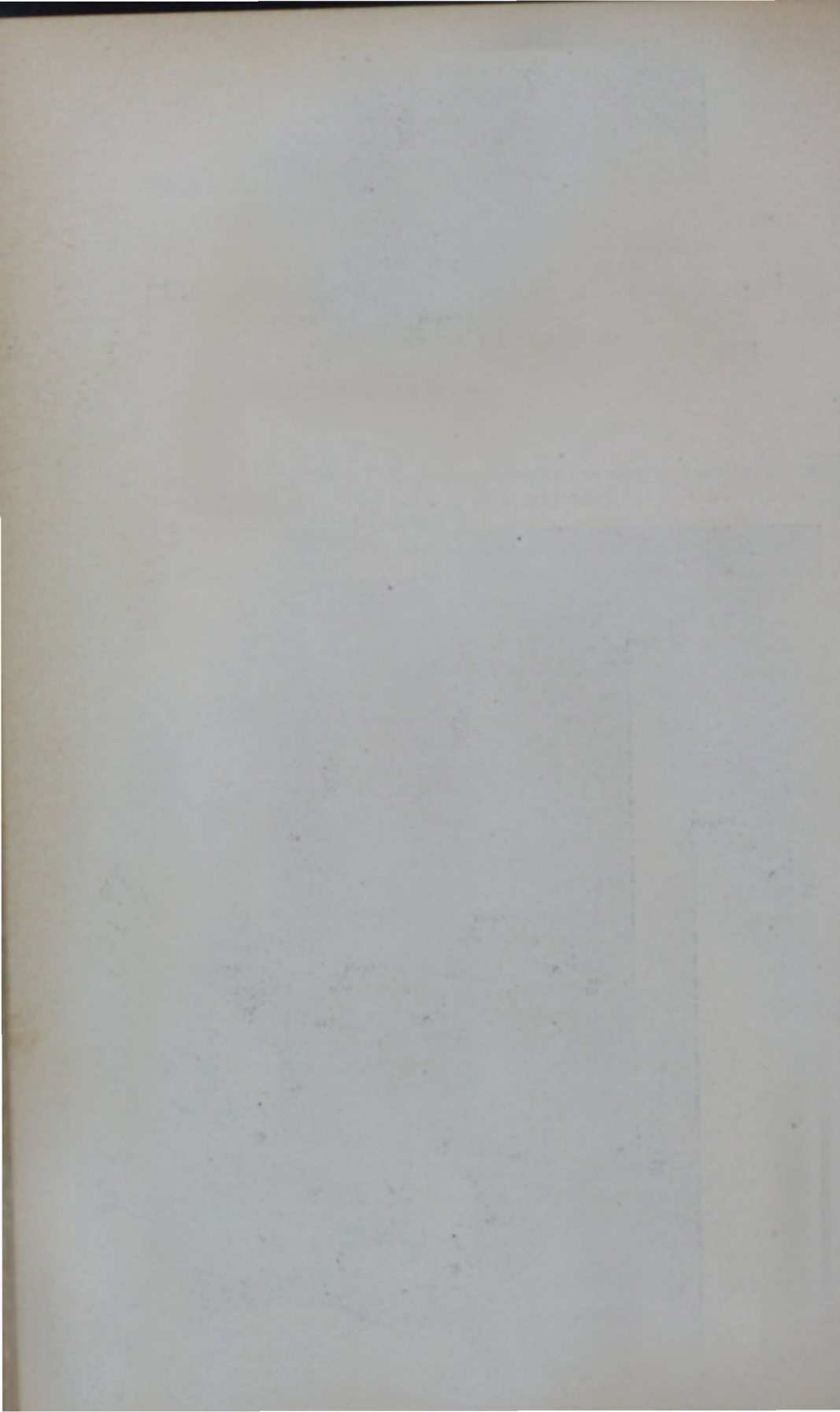


PLATE LXX.—Showing Treatment for Eye Troubles.



In the very young the eruption may develop and pursue its course without the neuralgic pains.

DIAGNOSIS. The characteristics of herpes zoster or shingles are usually so well marked that an error in diagnosis should not occur. The neuralgic pain preceding the eruption and its development in distinct groups upon inflamed bases following a nerve tract are so different from the simple herpes of the face, or genitalia, or from the lesion of eczema.

PROGNOSIS. Favorable. The affection is self-limited, the duration being about two weeks.

TREATMENT. Same as in Herpes, locally and generally. Give special attention to nerves controlling digestion.

MILIARIA.

SYNONYMS. Lichen tropicus; miliaria rubra; miliaria alba; prickly heat.

DEFINITION. An acute inflammation of the sweat glands; characterized by the development of discrete, whitish or reddish, pin-point and millet-seed-sized papules, vesicles, or vesiculo-papules, productive of prickling, tingling, and burning sensations of a most aggravated character.

CAUSES. Excessive heat, the result of excessive or tightly-fitting clothing, or a high external temperature. Most common in fleshy adults who perspire freely, and in children. Nervous prostration; severe dyspepsia and general debility seem to predispose to "prickly heat."

VARIETIES. Miliaria papulosa; miliaria vesiculosa.

PATHOLOGY. The pathology of the two varieties is the same, both being inflammatory affections of the sweat glands; in the one papules, and in the other vesicles develop about the orifices of the excretory ducts. In either variety there occurs hyperaemia of the vascular plexus of the sweat glands, followed by slight exudation about the ducts, giving rise to the minute papules or vesicles, which remain until the cause has been modified or removed, when they are rapidly absorbed.

SYMPTOMS. Miliaria Papulosa—Known as lichen tropicus and "prickly heat," is of a sudden onset, with the occurrence of numerous minute, acuminate bright red papules, about the size of a pin-head or millet-seed, and but slightly raised above the level of the skin. The papules are preceded by and accompanied with

sweating (hyperidrosis), and distressing tingling, pricking, and burning sensations. If the attack be severe, vesico-papules and vesicles are freely interspersed among the numerous papules. Rarely the secretion of sweat is notably diminished.

Miliaria Vesiculosa.—In this variety, instead of papules, immense numbers of vesicles develop, of the size of pin-points and pin-heads, or a whitish (*miliaria alba*) or yellowish-white color. The surface from which they rise is of a bright red color, owing to each vesicle being surrounded by an areola (*miliaria rubra*). The vesicles are preceded and accompanied with sweating (hyperidrosis) and the most distressing tingling, pricking, and burning sensations.

Either variety may attack all parts of the body, but the abdomen, chest, back, neck and arms are the regions usually invaded.

DURATION. This varies with the cause. It may appear, fully develop, and disappear in a few hours. In those predisposed it may continue more or less marked through the entire summer.

DIAGNOSIS. If the cause, nature, and seat of the affection are taken into consideration, no error should occur.

Eczema papulosum has a resemblance to "prickly heat," but the course of the eczema is slow, and the papules are larger, more elevated, and firmer than those of *miliaria papulosa*.

TREATMENT. Same as in Herpes, locally and generally.

PEMPHIGUS.

SYNONYM. Water blisters.

DEFINITION. An inflammatory disease of the skin, either acute or chronic, characterized by the development of a succession of rounded, irregular-shaped blebs or bullae, varying in size from a pea to an egg.

VARIETIES. *Pemphigus vulgaris*; *pemphigus foliaceus*.

CAUSES. Obscure. It is usually associated with a depressed state of the general system; disorders of menstruation; during pregnancy.

PATHOLOGY. Hebra thus describes the appearance of the blebs: "Sometimes a circumscribed, light-red spot appears, perhaps of the size of a bean or a large coin; this is paler in the center, and may even present a tinge of white, indicating the point at which the bleb is to form, and from which it will spread outward

over the surrounding skin, and, in fact, is at first a wheal, passing afterward into a bleb. In other cases the bleb is not preceded either by a red spot or by a wheal, but begins originally as a small collection of clear fluid beneath the cuticle. Thus, hyperaemia of the skin may exist before exudation is poured out, or the latter may be formed before any congestion of the papillary layer is discoverable."

The contents of the blebs or bullae are yellowish or colorless serum, of a neutral or alkaline reaction; the older the fluid the more alkaline it becomes. In the late stages of a bleb the fluid becomes puriform. In rare instances blood is contained in the bleb (*pemphigus hemorrhagicus*).

SYMPTOMS. *Pemphigus Vulgaris*.—The onset is slow (*pemphigus chronicus*), without constitutional symptoms, or acute (*pemphigus acutus*), preceded by febrile reaction. The lesions are the successive development of blebs, usually from half a dozen to a dozen, varying in size from a pea to an egg, of a round or oval shape, their walls distended with a colorless fluid, the color becoming yellowish or puriform as they grow older. They develop abruptly from the sound skin, with a definite line of demarcation, unattended with symptoms of inflammation. A characteristic phenomenon of the lesion is their successive appearance; a crop no sooner disappears than another forms, throughout the course of the affection, each crop running its course in from three to six or ten days. With the appearance of the blebs occur itching and burning, usually of a mild character, although occasionally in a distressing degree (*pemphigus pruriginosus*).

Pemphigus Malignus.—Is characterized by the great size and number of the blebs, which coalesce, rupture, and are succeeded by excoriated surfaces, which occasionally take on ulcerative action, the patient's health being seriously impaired.

Pemphigus Foliaceus.—Differs from *pemphigus vulgaris* in that the blebs, instead of being distended or tense, are flaccid and only partially filled with fluid, as they rupture before arriving at their state of full development. This variety also appears and disappears in crops. After rupture the fluid immediately dries into thin whitish flakes, which are detached in quantity, leaving a red, excoriated surface—the rete and corium. If the affection has continued for some time, the skin presents the appearance of a superficial scald. The course of this variety is essentially chronic.

All portions of the body are liable to the lesion, as also the

mucous membrane of the mouth and the vagina. It is most common, however, upon the limbs.

DIAGNOSIS. In a typical case no difficulty should be experienced in making a diagnosis. The mere presence of blebs, however, does not necessarily constitute pemphigus, for it must be remembered that they are at times developed in other diseases, as well as by artificial means; the appearance of blebs in crops is a strong diagnostic point.

PROGNOSIS. The course of the affection is most uncertain, and relapses are frequent. In arriving at an opinion, the occurrence of fatal cases must not be forgotten.

TREATMENT. Same as in Herpes, locally and generally.

IMPETIGO.

DEFINITION. An acute inflammatory disease, characterized by the development of one or more discrete, rounded, and elevated, firm pustules, about the size of a pea, unattended with itching.

CAUSES. Occurs for the most part between the ages of three and ten years, in the well-nourished and healthy. It is not associated with eczema. It is not contagious.

PATHOLOGY. The lesion is a well-formed, typical pustule, developing abruptly from the surface, containing a whitish-yellow fluid, pus corpuscles, blood corpuscles, epithelial cells, and cellular detritus. The abscess or pustule is about the size of a pea, circumscribed, and superficial.

SYNONYMS. The affection manifests itself by the development of from one or two to a dozen or more distinct pustules, about the size of a split pea, of a rounded shape, raised above the surface, with thick walls, of a yellowish or whitish color, surrounded by a distinct areola, which soon fades, are without a central depression or umbilication, and unattended with either itching or burning.

The affection runs an acute course, usually lasting a couple of weeks. The pustules, after attaining their full size, remain stationary for a few days, when they disappear by absorption and desiccation, the crusts dropping off, displaying a reddish base, which soon disappears with pigmentation or scar.

The pustules occur on all portions of the body, the most

frequent locations being the face, hands, fingers, feet, toes and lower extremities.

DIAGNOSIS. Impetigo is unassociated with general symptoms, and its particular lesion—the pustule—is discrete, points of importance in the diagnosis.

Eczema pustulosum is also a pustular affection, but the large number, their disposition to coalesce, their location upon an inflammatory base, their rupture and subsequent crusting and itching, are diagnostic points.

The diagnostic points from ecthyma will be pointed out when describing that affection.

PROGNOSIS. Favorable.

TREATMENT. Same as in Herpes, locally and generally.

ECTHYMA.

DEFINITION. An affection of the skin, characterized by the formation of one or more large, isolated, flat pustules, situated upon an inflammatory base.

CAUSES. It is most common among those who live in squalor and poverty, and in delicate and poorly-nourished children. Improper and insufficient diet, want of ventilation, excessive work, and uncleanness are all prominent causes.

PATHOLOGY. The lesion is a typical pustular process, severe but superficial, and not extending beyond the papillary layer of the corium. The pustule is situated upon a firm and highly-inflamed base; the number varies from one to a dozen or more.

SYMPTOMS. The disease is characterized by the development of one or more round or oval, yet flat, pustules, about the size of a pea-bean, attended with moderate heat, burning and pain, and if the number be large, slight febrile reaction. The pustules are first yellowish in color, surrounded by a firm and sensitive bright red areola, the pustule afterward becoming reddish from the admixture of blood, soon drying into flat crusts of a brownish color. The duration of each pustule is between two and three weeks, new ones forming until the cause is removed.

The most prominent sites are the thighs, legs, shoulders and back.

DIAGNOSIS. Ecthyma and eczema pustulosum have points of resemblance, but a study of the clinical history of the latter should prevent error.

Impetigo differs from ecthyma in the size of the pustule and crust. Ecthyma differs from a boil in not having a central core.

PROGNOSIS. With care and the removal of the cause, recovery is always prompt.

THE TREATMENT.

Besides the general treatment, use local vibratory movements around the pustules. Beginning some distance from the same, using one finger, circle round the tumor, rapidly, using considerable pressure, gradually drawing nearer to the sore, and continue these movements slowly, but kept up for ten or fifteen minutes, and ending these manipulations on the summit of the boil or tumor.

These will be discussed at one sitting if not too far advanced. If not, the process should be repeated at intervals of twelve to twenty-four hours. In the case of carbuncles it will be necessary to exercise more force and persistency, and if the element of Silicia be used, sixth potency, amelioration will be more rapid, as connective tissue elements are deficient, and should be administered.

FURUNCULUS.

SYNONYMS. Furunculosis; furuncle; boil.

DEFINITION. An acute affection of the skin, characterized by the occurrence of one or more circumscribed cutaneous or subcutaneous abscesses (boils), which usually terminate by necrosis of the central tissue, its subsequent expulsion in the form of pus or a core, and a resulting cicatrix.

CAUSES. The result of a depraved condition of the system, induced by general debility, excessive fatigue, nervous depression, improper food and exercise, anaemia, diabetes, uraemia, or the result of local friction, pressure, or contusions.

PATHOLOGY. The process resulting in a "boil" has its origin in either a sebaceous gland, a sweat gland, or a piliary follicle, and never begins in the meshes of the corium. "It begins as a small, roundish spot, which increases in size until certain dimensions are attained, when it undergoes suppurative change, resulting in the formation of a central point or core, composed of the tissue of the gland in which the furuncle originated, which, together with the pus, is cast off. It shows no disposition to become diffuse, being always a circumscribed inflammation.

After the discharge of the core, a cavity of more or less depth remains, showing the tissues around it to be hard and infiltrated. After a few days or a week it fills up by granulation, leaving a cicatrix, which is often permanent. The central point or core, when thrown off, is composed of a whitish, tough, pultaceous mass of dead tissue, varying in size with the extent and depth of the inflammation." (Duhring.)

Hydro-adenitis, as seen in the axillae, around the nipples, and about the anus or perineum, differs from the ordinary "boil" merely in being deeper seated.

SYMPTOMS. "Boils" may occur singly, or more commonly in crops of two, three, or more, another crop following their disappearance (furunculosis).

The abscess begins as a small, rounded, imperfectly defined, isolated, reddish spot, of a highly inflamed character, painful on pressure, its size gradually increasing, its central point presenting evidences of suppuration. It reaches its full development in about a week, when it consists of a slightly raised, rounded, and pointed inflammatory swelling with a yellowish point in the center—the "core." Abscesses with no central suppuration or core are called "blind boils." The size of a developed boil varies from a split pea to a walnut, the color deep red, with a yellow center, and is surrounded by a slight areola. The pain of a boil is dull and throbbing, painful on pressure, and is usually worse at night. The constitutional symptoms are mild or severe, according to the number and size of the lesions.

Any portion of the body may be attacked; its preference, however, is for the face, neck, back, axillae, nipples, buttocks, anus, perineum and labiae.

DIAGNOSIS. The characteristics of furuncle are so marked that an error seems impossible. It may be, however, mistaken for carbuncle, the differences between which will be pointed out when discussing that affection.

TREATMENT. Same as for Ecthyma.

CARBUNCULUS.

SYNONYMS. Carbuncle; anthrax.

DEFINITION. An indurated, more or less circumscribed, dark red, painful, deep-seated inflammation of the skin and sub-

cutaneous connective tissue, terminating in a slough and the subsequent production of a permanent cicatrix.

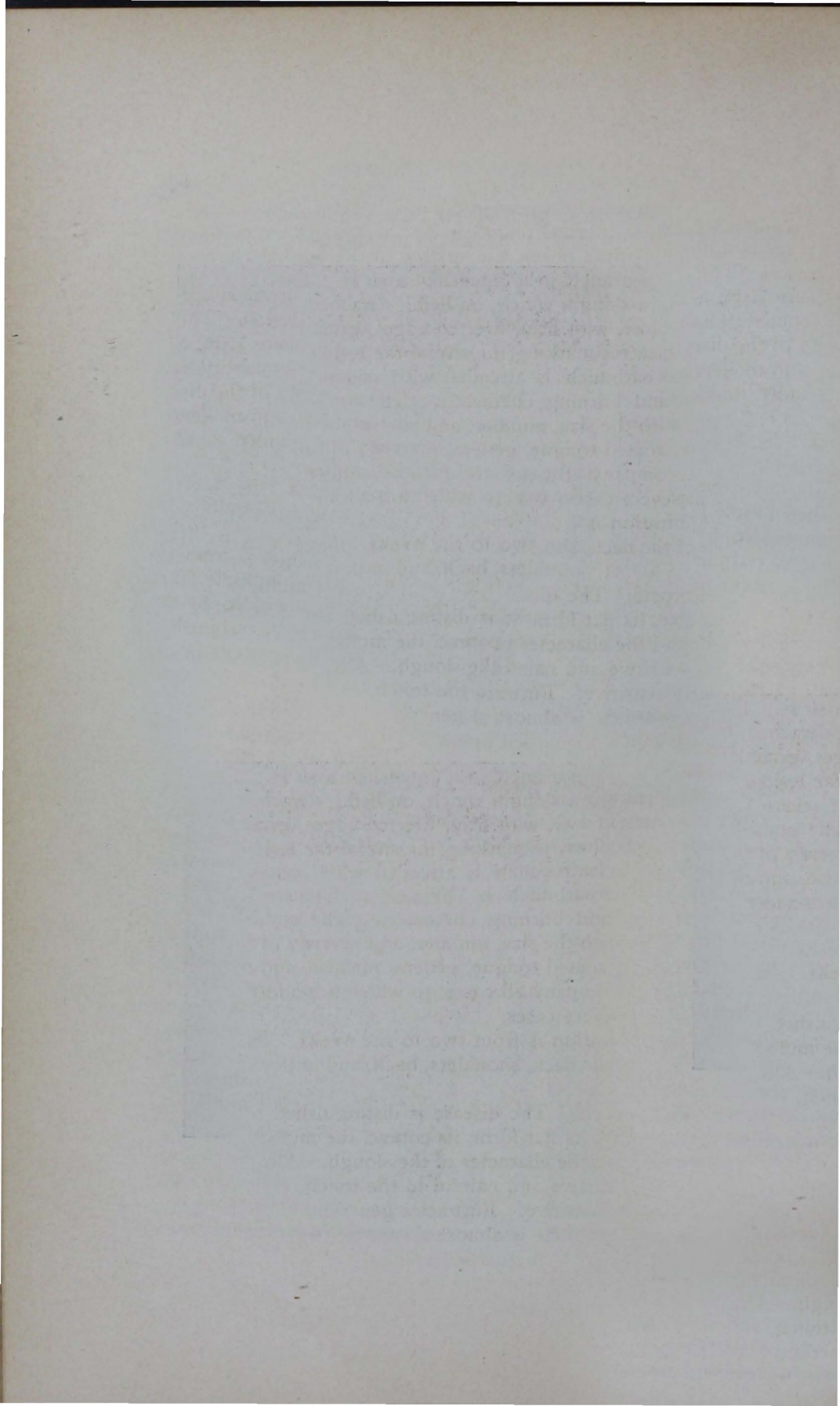
CAUSES. Not positively determined. A deep-seated bruise is a supposed cause. Perhaps, as in furuncle, impairment of the general health is the important factor. It is generally noted to occur in middle life and old age, and in men more frequently than in women. A "specific" cause for anthrax is not an improbable discovery.

PATHOLOGY. Although Billroth regards furuncle and carbuncle as differing only in degree, the explanation of Warren, of Boston, seems the more probable, he being the first to call the attention of histologists "to the existence of small columns of adipose tissue leading from the panniculus adiposus up to the roots of the lanugo hairs, taking an oblique direction in a line with the *erectores pilorum*. The inflammation resulting in supuration of the subcutaneous adipose tissue must either form an abscess or become diffuse. In phlegmonous erysipelas the latter condition is observed. But when the inflammation is in the dermoid texture, the exudates infiltrate the skin and naturally follow the canals occupied by the 'columnae adiposae.' The pressure thus exerted upon the whole dermoid tissue can not fail to strangle the circulation, and thus produce gangrene of the tissue, even if the exudate be not poisonous enough to destroy the cells by its presence. It can, by this explanation, be easily understood why this disease is apt to affect the skin on the nape of the neck and the back more than on other parts of the body. At this point the skin is dense, its fibrous element extending deep into the adipose layer, which is surrounded with strong bands; hence, the pus confined in such a place, seeking the easiest outlet, will travel along these miniature adipose canals, producing the peculiar appearance pathognomonic of carbuncle."

SYMPTOMS. Carbuncle is recognized by its peculiar form; commencing in the lower layers of the cutaneous tissue, it first resembles somewhat a phlegmon minus its bright redness. At first it is somewhat rounded, with a strong tendency to the production of vesicles on its surface; soon, however, becoming firm, circular and flat, and raised above the surrounding parts, spreading through the subcutaneous tissue and skin, becoming at times enormously large, and having a dark red or violaceous color. As the disease progresses, the pressure results in the softening of the tissues, the skin becoming gangrenous, breaking down at numerous points, forming perforations, through which



PLATE LXXI.—Flexing Limb on Thigh and Abdomen.



centers of suppuration appear in different stages of advancement, either as whitish, fibrous plugs, or as cavities, from which a yellowish, sanious fluid oozes, the surface of the anthrax having a cribriform appearance, perforated like a sieve. The entire mass terminates in a slough, which, on being detached, leaves a large, open, deep ulcer, with firm, everted edges, granulating slowly, a permanent cicatrix marking the site of the lesion. The development of the carbuncle is attended with severe pain, of a deep, throbbing, and burning character. The constitutional symptoms vary with the size, number, and severity of the disease; loss of appetite, coated tongue, general malaise, and moderate febrile reaction accompany all cases, to which are added those of septicaemia in severe cases.

The duration is from two to six weeks. Its favorite site is the back of the neck, shoulders, back, and buttocks. It is usually single.

DIAGNOSIS. The disease is distinguished from furuncle by its great size, its flat form, its course, the multiple points of suppuration, and the character of the slough. Also, by the pain; in furuncle, sensitive and painful to the touch, carbuncle not being particularly sensitive. Furuncles generally occur in numbers or in crops; carbuncle is almost always single.

PROGNOSIS. A guarded opinion should always be given, as death is not infrequent from anthrax, especially in elderly people with impaired health. The mortality, however, is not so great as the laity suppose. A great danger is septicaemia, from the action of the poison on the blood, or the result of secondary abscesses.

TREATMENT. Same as for Ecthyma.

When called late, and the carbuncle has broken down, the integument abraded, the local application of pure carbolic acid, once in twenty-four hours, does much in arresting the progress of degeneration of tissue. Keep up free circulation and vibratory movements until cured. Study the tissue side of these affections. Supply them somehow, either with food or the element prepared as stated above.

ACNE.

SYNONYMS. Acne vulgaris; acne disseminata; varus; stone-pock.

DEFINITION. An inflammation, usually chronic, of the seba-

aceous glands; characterized by the development of papules, tubercles, or pustules, or by a combination of such lesions, usually in various stages of formation, occurring for the most part upon the face.

VARIETIES. *Acne papulosa*; *acne pustulosa*; *acne artificialis*.

CAUSES. Not always understood, as the affection is frequently associated with apparently the most robust health. A frequent cause is puberty. Among the other causes observed are gastro-intestinal disorders, anaemia, chlorosis, uterine disorders, urethral irritation, scrofula, and the use of large doses of the bromides and iodides. *Acne* may exist alone or be associated with comedo or seborrhoea.

PATHOLOGY. An inflammation of the sebaceous gland structure and surrounding tissues. There first occurs retention of the sebaceous secretion, which is soon followed by hyperaemia and exudation about the glands and in the gland wall (*acne papulosa*), infiltration of the connective tissue (*acne tubercula*), followed by suppuration (*acne pustulosa*). If the inflammatory action be severe, destruction of the gland with a resulting cicatrix occurs.

SYMPTOMS. *Acne Papulosa* or *Acne Punctata*.—This variety of the affection is the earliest stage of the inflammatory action, and is usually of short duration, being soon followed by the development of pus. It is characterized by the occurrence of pin-head to pea-sized, flat, more or less pointed papules, situated about the sebaceous follicles, lightish in color, with a minute central black point, the opening of the sebaceous duct. Pustules are not infrequently observed scattered among the papules. The lesion is unaccompanied with either local or constitutional symptoms. While the forehead is the most frequent seat for this variety, they sometimes are seen elsewhere.

Acne Pustulosa.—This is the fully developed affection. It is seen upon the face, neck, shoulders, and back, as pin-head to pea-sized, rounded or acuminated pustules, seated upon an infiltrated, reddish base of superficial or deep inflammatory product (*acne indurata*). Scattered among the pustules may be seen numerous papules. There are no constitutional symptoms, nor is pain complained of unless the pustule be handled.

Acne Artificialis.—Is rather a clinical variety, the result, usually, of large doses of the bromides or iodides, the lesion being identical with *acne pustulosa*.

DIAGNOSIS. The lesion is so characteristic, the course so

chronic, and the location so frequently upon the face, that an error seems impossible if care be exercised. The resemblance of the papular and pustular syphiloderms must not be mistaken for acne.

PROGNOSIS. Essentially a chronic affection, lasting for a number of years; but if persistent treatment be employed, recovery will occur.

THE TREATMENT.

The chemical changes that take place during the sluggish peristalsis of the capillaries account for the necessity of instituting means to regulate the circulation of the fluids. Take off the pressure, not only in the arteries and veins and the lymphatic tubes, but from the tubes that prevent the outflow of the fluid in the sebaceous glands. The sameness of the proceedings to establish normal circulation seems to the looker-on paradoxical, but the skilled Osteopath perceives the difference necessary to manipulate the different tissues involved, to increase the forces that promote circulation of all the fluids involved in the case. In the glandular system undergoing the changes the results are either from interference in the molecules of the sebaceous system from lack of elements by deficient salivary secretion being mixed in the food during the process of mastication, or directly from impediment in the smaller blood vessels in the integument itself. Attention to digestion of food eaten, and the promotion of the proper, uninterrupted circulation of the blood and other fluids, restores the skin to a normal state in due time. Healthy blood restores tissue wherever permitted to flow, provided the sympathetic nervous system is properly connected with the motor system of nerves. This understood, opens up the phenomena of the cure of all diseases by removing pressure. The use of weak salt baths should receive due and careful, persistent attention in all skin affections.

ACNE ROSACEA.

SYNONYMS. Gutta rosea; gutta rosacea.

DEFINITION. A chronic hyperaemia or inflammatory affection of the nose and cheeks; characterized by redness, hypertrophy of the skin, and dilatation and enlargement of the blood-vessels supplying the part, and the development of more or less acne. The nose and cheeks are the most frequent location.

CAUSES. Not always determined. It occurs in young women about puberty who are anaemic, or suffer from a general debility, nervous irritability, or prostration, dyspepsia, or menstrual irregularities. It often appears during the menopause. In young males the affection can often be traced to nervous or general debility or dyspepsia. The use of spirituous liquors or of large amounts of condiments are frequent causes, as is constant exposure to the weather. It is frequently associated with seborrhoea.

PATHOLOGY. There first occurs blood stasis in the vessels of the part, producing the undue redness first noticed. As a result of the stasis, sooner or later the capillaries are dilated and hypertrophied, and as a result of the interrupted circulation inflammation of the sebaceous gland (acne) results, with the development of papules and pustules. This constitutes the typical acne rosacea. The affection may proceed no further, remaining at this point for years, or, rarely, the pathology of this stage is exaggerated, the involved tissues all hypertrophying, and the connective tissue undergoing a true hyperplasia, causing increased size and abnormal shape of the nose.

SYMPTOMS. The onset of the affection is slow and insidious, characterized at first by more or less diffused redness of the part, the color aggravated by water or cold air. If the nose be the part attacked, it is usually greasy (seborrhœic), and is apt to be cool or even cold. This condition may remain for years, but sooner or later the evidence of dilatation and hypertrophy of the capillaries is apparent by the more decided and permanent redness, and upon close examination the enlarged minute cutaneous blood-vessels are seen as delicate or coarse red lines, running superficially over the skin in an irregular and tortuous course. Soon are developed upon the hyperaemic and hypertrophied skin papules (acne papulosa) and pustules (acne pustulosa), their number never, however, being very great. This constitutes true acne rosacea. The disease may remain in this state, or, rarely, the cutaneous tissues are greatly hypertrophied, the blood vessels enormously dilated, the glands enlarged, and the connective tissue undergoes hyperplasia, resulting in permanent, dark red, bulky formations, the shape of the nose being contorted into various irregular forms. Duhring reports a case in which the nose was the size of the patient's fist (rhinophyma). The nose and cheeks are the usual location of the disease, although rarely it involves the forehead.

DIAGNOSIS. The characteristics of the disease are so marked, consisting of rosacea—the dilated and hypertrophic blood vessels—with papular and pustular acne superadded, that an error can hardly occur if due care be exercised.

Lupus vulgaris bears some resemblance to acne rosacea, as it is apt to develop about the face, and especially the nose; but the papules, tubercles, and pustules of lupus vulgaris soon ulcerate, followed by crusts and cicatrices, which never occur in acne rosacea.

Lupus erythematosus may be confounded with acne rosacea if it occurs upon the end of the nose; but in the former the skin is harsh and covered with adherent whitish and yellowish scales connected with the openings of the sebaceous follicles, which is never the case in acne rosacea.

Frostbite resembles the first stage of acne rosacea, but the history of the two conditions soon determines the diagnosis.

PROGNOSIS. Favorable, if treatment be instituted during the first stage. After hypertrophy has occurred but little can be accomplished.

TREATMENT. Same as for Acne.

PSORIASIS.

SYNONYMS. Lepra; alphos; psora; English leprosy.

DEFINITION. A chronic affection of the skin, characterized by reddish, more or less thickened and elevated, dry, inflammatory, and somewhat wrinkled patches, variable as to size, shape, and number, and covered with abundant whitish or grayish-colored, imbricated scales. It is not contagious.

SYMPTOMS. Psoriasis begins as small, reddish spots, of the size of a pin's head, which immediately become covered with scanty or abundant whitish or grayish, imbricated scales. The spots gradually increase in diameter, forming patches of various sizes and shapes.

If one of the scales be detached by means of the finger nail, it will be found to adhere quite firmly to the skin, and to be about the thickness of a card-board. If the reddish patch thus made bare be pinched up between the finger and thumb, and compared with a similar pinch of the healthy skin, its inflammatory thickening will be discerned. There is no watery discharge at any time. The skin between the patches is perfectly healthy.

While the anatomical lesions are always identical, the eruption assumes such features, as to the size and shape of the patches, as to give rise to special names.

DIAGNOSIS. Seborrhoea of the scalp and psoriasis of the same region frequently are difficult of diagnosis. In the former the scalp is paler, the scales are finer, smaller, more generally diffused, of a grayish or yellowish color, and greasy, sebaceous character. Psoriasis of the scalp is in patches, which are reddish and infiltrated, and there are almost always patches of the disease on other parts of the body.

PROGNOSIS. An attack can easily be removed.

THE TREATMENT.

This disease, like all other skin diseases, must be classed as a result of impeded circulation, and treated accordingly. The various forms signify no special indication in the treatment, only in so far as complications accompany the disorders of the various forms and stages of the skin diseases. The use of the tissue elements, Chloride of sodium, Kali sulph. and Silicia, and if indurated edges are discovered, Calc. fluoricum, is indicated. A careful study of the offices these tissue elements fill and perform in the physical economy will explain many pathological persistencies that are unexplainable on any other hypothesis—that of deficient co-ordination on account of the absence of the proper elements, and, per consequence, power to perform normal functions. All we need to cure any disease is normal constituents and freedom of the circulation of the blood, and other fluids, as well as nerve freedom (normal tension) everywhere.

HYPERTROPHIES OF THE SKIN.

LENTIGO.

SYNONYM. Freckles.

DEFINITION. A pigmentary deposit of the skin, characterized by irregularly shaped, pin-head, or pea-sized, yellowish, brownish, or blackish spots, occurring for the most part about the face and back of the hands.

CAUSE. In the majority of instances exposure to the sun is the exciting cause.

PATHOLOGY. In anatomical structure freckles consist of a

circumscribed, increased amount of normal pigment, differing from chloasma only in the peculiar form and size of the deposit.

SYMPTOMS. The number of "freckles" varies from a very few to immense numbers. They occur as brownish or yellowish-brown, small, roundish, irregular spots, most commonly upon the face and hands. Rarely the number is very great, and they give to the skin an uncleanly appearance. They are apt to occur at all ages, but rarely before the third year. They are unattended with itching or other subjective symptoms.

PROGNOSIS. Usually favorable. Their course, when left to themselves, is chronic, lasting for years or a lifetime. They ordinarily appear in the summer, fading away as cold weather approaches, to return the following summer.

THE TREATMENT.

Free the circulation of blood in veinlets daily. Stretch neck muscles thoroughly from side to side, lifting the pressure from the jugulars, dilate the nares, and manipulate by vibration every part of the face; induce deep inspirations; several sittings each day. Bathe the face with the salt water mentioned elsewhere; at all times water is used on the face, put salt in the water. Attend to the digestive tract. In addition, we would recommend Nat. mur. as a tissue element, 6x, three times daily, to supply element.

CHLOASMA.

SYNONYMS. Liver spots; moth.

DEFINITION. A pigmentary discoloration of the skin, characterized by variously-sized and shaped, more or less defined, smooth patches, or of a discoloration, yellowish, brownish, or blackish in color.

CAUSE. The etiology of chloasma depends upon whether the pigmentation is idiopathic or symptomatic in its occurrence. Idiopathic chloasma results from the irritation of long-continued scratching, such as is practiced in severe eczema or pediculosis, the application of blisters and sinapisms, heat, the direct rays of the sun, and various medicinal and chemical substances, such as follows the prolonged use of argentum (argyria). Symptomatic chloasma occurs in connection with cancer, malaria, tuberculosis, disease of the supra-renal capsule (Addison's disease), disease of the womb, pregnancy (chloasma uterinum), neurotic disturbances, anaemia, and chlorosis.

PATHOLOGY. The affection is an increased deposit of the normal pigment having its seat in the mucous layer of the epidermis. The deposition of the pigment is the result of a nervous derangement, possibly of the trophic system.

SYMPTOMS. Chloasma is simply a discoloration of the skin, unattended with alteration of the surface. The patches vary in size and shape; they may be as minute as a coin or as large as the hand, or much larger, even to a universal discoloration of the entire surface, and they may be roundish or irregular in outline. The usual color is yellowish, brownish, or muddy, or even blackish (melasma melanoderma).

In Addison's Disease, of a typical character, "the coloration is brownish, with an olive-greenish or bronze tint, and is general, although, as a rule, especially pronounced upon regions having a disposition to normal increase of pigment, as the face, backs of the hands, axillae, areolae of the nipples, and the genital organs; the hair, also, may become darkened. It may also occur with or follow other pigmentary changes, as of the hair. Gaskoin reports a case, occurring in a woman, aged forty-five, where the patch, situated on the cheek, near the nose, was intensely dark. It had existed nine years. The color of the hair had, fifteen years previously, changed from caroty-red to black.

In Argyria, or discoloration of the skin resulting from the internal use of nitrate of silver, the color is a bluish, bluish-gray, slate, bronze, or blackish, varying as to the shade. It occurs over the surface generally, but is more pronounced upon parts exposed, as the face and hands.

Chloasma uterinum occurs most frequently between the ages of twenty-five and fifty, seldom after the menopause, caused, in the greater number of instances, by changes, physiological and pathological, which take place in connection with the uterus. It is seen in the married and single, although much commoner in the former. Pregnancy is the most frequent cause, although also associated with either dysmenorrhoea, chlorosis, anaemia, or hysteria.

It is seen in the mildest degree about the eyelids, especially during the menstrual epoch, as a duskiness or swarthinness of the complexion, either lasting a few days or being permanent. As usually encountered, however, chloasma of this variety consists in the presence of one or several patches, appearing generally about the forehead or other parts of the face, upon the trunk, about the nipples, and upon the abdomen. Rarely the entire face

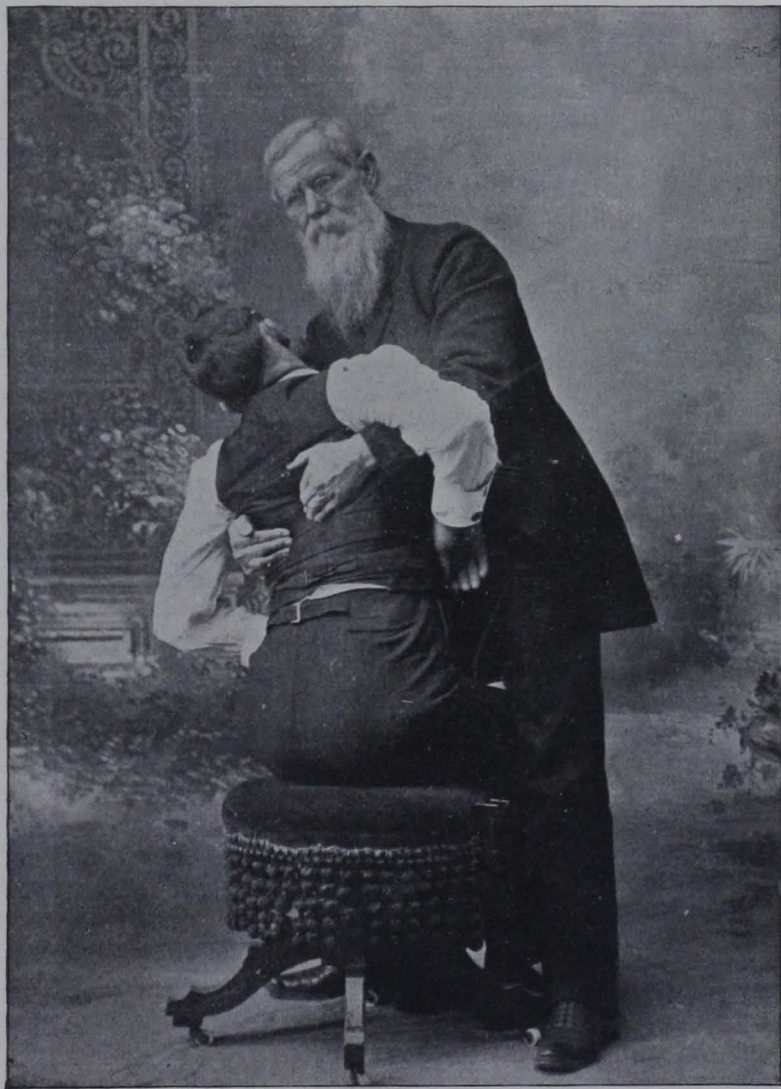
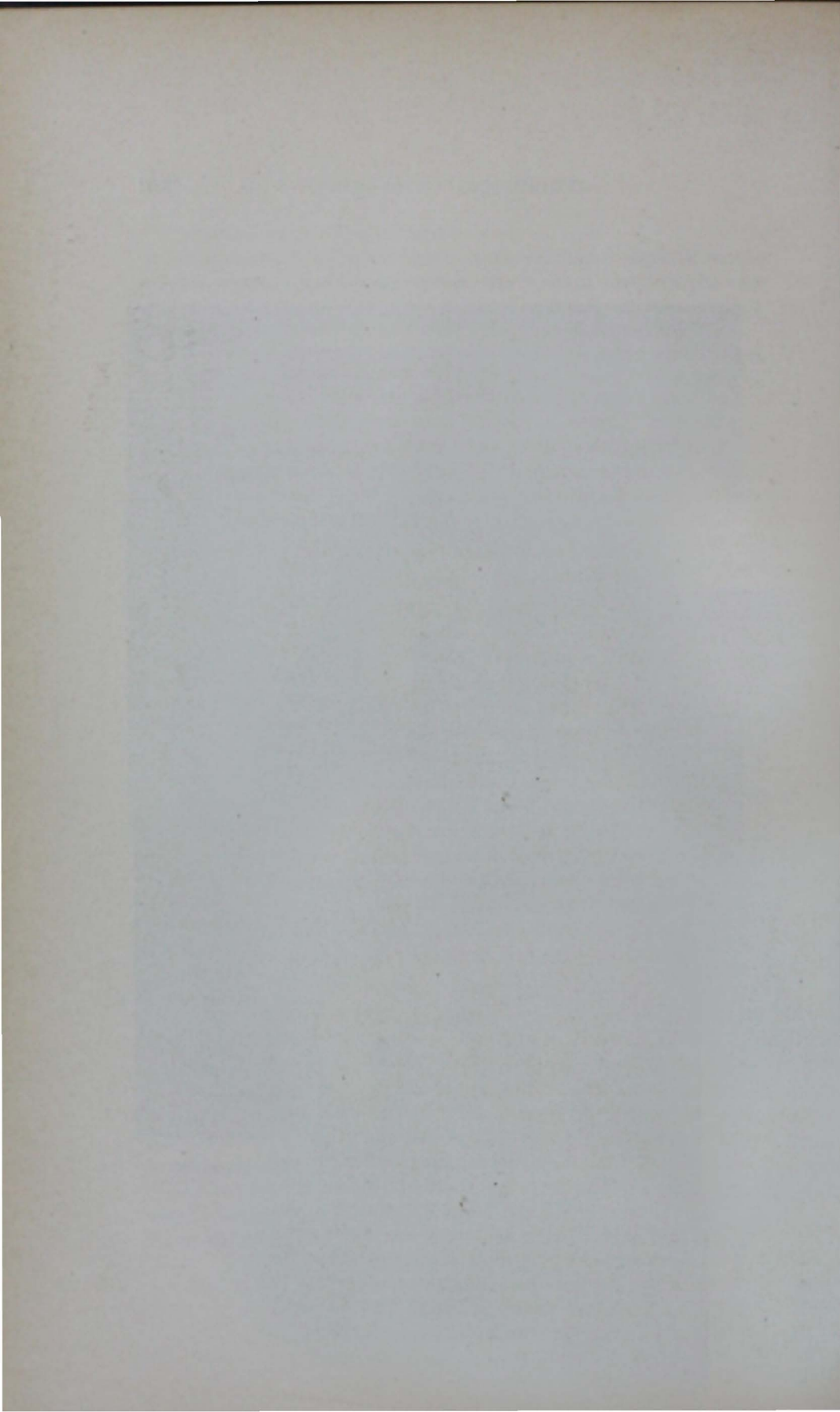


PLATE LXXII.—Showing Various Dorsal Treatments.



is covered with a discoloration, resembling a mask. Cases are recorded in which the pigmentary deposit was general, resembling Addison's disease.

DIAGNOSIS. Tinea versicolor and chloasma resemble each other in the color of the patches, but otherwise they have nothing in common. Tinea versicolor occurs on the trunk, while chloasma occurs upon the face and about the nipples, and in cases the result of pregnancy about the umbilicus, except in those comparatively rare instances in which the discoloration is diffused. The patches of chloasma are smooth, those of tinea versicolor furfuraceous, as can readily be demonstrated by gently scraping the discoloration with the finger nail.

PROGNOSIS. Unless the result of Addison's disease, the prolonged use of argentinum, tuberculosis, or cancer, favorable.

THE TREATMENT.

Liver spots were formerly supposed to indicate a bilious condition, and calomel was recommended. Excepting in case of pregnancy, general treatment offers the best results for this condition. The restoration of the normal circulation of the fluids all over and throughout every tissue is the all-important measure to institute. The proper adjustment of the system to itself is essential, for all unnatural depositions indicate sluggishness of circulation, and normal activity of the fluids means a clear, normal skin, all over the body. The endeavor to cover up abnormalities under cover of paints or salves, lotions or ointments, is deceptive. Restore a normal circulation and the cosmetic appearance is satisfactory. Stains from nitrate of silver are not easily removed, except by time. Salty solutions have a "fading effect" in such cases. Its use in sore eyes, long continued, colors them brownish yellow. Osteopathy does not change the color of the skin of the "Ethiopian" nor the leopard's spots, but it does restore to a normal condition abnormalities caused by impeded circulation, as a rule.

Treatments should be given regularly as often as necessary to induce normal circulation and to establish it. This will generally require every other day thorough general treatment, paying especial attention to the vibratory movements over the surface.

CALLOSITAS.

SYNONYMS. Tyloma; callus; callosity.

DEFINITION. Callositas, or tyloma, consists in the development of a hard or horny, thickened patch of skin, variable in extent, and of a grayish, yellowish, or brownish color, and unattended with pain. The most frequent location is upon the hands and feet.

CAUSES. The result of pressure or friction, as in the case of the hands of the mechanic, the effect of his tools; or, if upon the foot, the result of ill-fitting shoes or from long marches. Callosities are also seen upon the fingers of violin, banjo and harp players.

PATHOLOGY. A hypertrophy of the horny layer of the skin, the corium remaining normal. The cells of the epidermis become so closely packed together as often to simulate horn substance.

SYMPTOMS. Callositas consists in an increase in the thickness of the skin of the affected part, presenting a firm, dense, more or less circumscribed structure, the extent of hardness varying considerably, sometimes being horny. The patch of hardness is generally about the size of a coin, roundish in shape, and somewhat elevated above the surrounding skin. The color of the patch may be either grayish, yellowish, or brownish. Callosities are usually upon the palms, fingers, soles and toes, although other parts, if exposed to the cause, may also be the seat. At times great pain and discomfort are experienced from the growth. Occasionally callosities are complicated by hyperaemia, fissure, acute inflammation, abscess, erysipelas, and serve readily as foci for such cutaneous diseases as eczema and psoriasis.

COURSE. Their formation and development is always slow and gradual. If the cause be removed, the prognosis is favorable.

CLAVUS.

SYNONYM. Corn.

DEFINITION. A corn is a small, circumscribed, usually flat, deep-seated hypertrophy of the epidermis, having a horny feel, projecting slightly from the skin, painful upon pressure, situated, for the most part, about the toes.

CAUSE. Continued pressure or friction, usually from ill-fitting or tight boots or shoes.

PATHOLOGY. A clavus consists of a circumscribed, excessive hypertrophy of the epidermis of the same character as occurs in callosity, and of a central portion—the core. The core extends deeply into the tissues, in the shape of an inverted cone, the base of the cone being directed outward and appearing upon the surface as a roundish elevation, its apex resting upon the papillary layer of the corium. The core of a clavus consists of a whitish, opaque, firm, tenacious body, composed of epidermic cells, arranged in concentric laminae.

The pain attending the presence of corns results from pressure upon the true skin by the hard core causing irritation of the nerve filaments of the papillae.

Corns existing between two toes are constantly bathed with the moisture of the part, which macerates and softens the formation, which thus receives the name of soft corn, in contradistinction to the hard corn.

SYMPTOMS. Until the growth attains a considerable size no discomfort, as a rule, is felt. After, however, its depth has reached the true skin, pain of an intermittent character, aggravated by pressure, is the chief symptom. Corns are often weather-sensitive, being unusually painful before, during, or after the occurrence of storms, and should, therefore, not be confounded with gouty or rheumatic deposits below the skin.

THE TREATMENT.

These very annoying excrescences demand more than a passing notice, and will require sometimes, in some cases, more than simply a "protective plaster" or loose-fitting shoes. The motto we advise for special consideration is, *Take Off the Pressure*. Soft corns may be dissected without pain by beginning at the edge and peeling it right down to the normal endothelium, without pain. If that is not done, wrap the phalanx with a soft twine or yarn string, loosely, just forward or back of the corn, placing a sufficient number to raise a slight ridge on the toe. Wear this until cured. Foot-baths in warm water once a day, followed by the application of castor oil, is frequently a source of much gratification. A patient feels better to have something prospectively done. A good way to cure corns is to go "bare-footed." This effectually takes off the pressure, doesn't it? Set joints by all means.

VERRUCA.

SYNONYM. Wart.

DEFINITION. A wart consists of a circumscribed hypertrophy of the papillary layer, with more or less epidermal accumulation, characterized by the appearance of a hard or soft, rounded, flat, or acuminated formation, of variable size

VARIETIES. The following varieties have chiefly a descriptive value: *verruca vulgaris*; *verruca plana*; *verruca filiformis*; *verruca digitata*; *verruca acuminata*.

CAUSE. Obscure. The various assigned causes are probably incapable of producing the affection.

PATHOLOGY. While the anatomy of warts differs somewhat according to their variety, in all forms there exists as a basis of their formation a connective-tissue growth, from which the papillary hypertrophy takes place. The interior of the growth is supplied by one or more vascular loops, from which their vitality is obtained.

SYMPTOMS. The various forms are so different as to require a separate description.

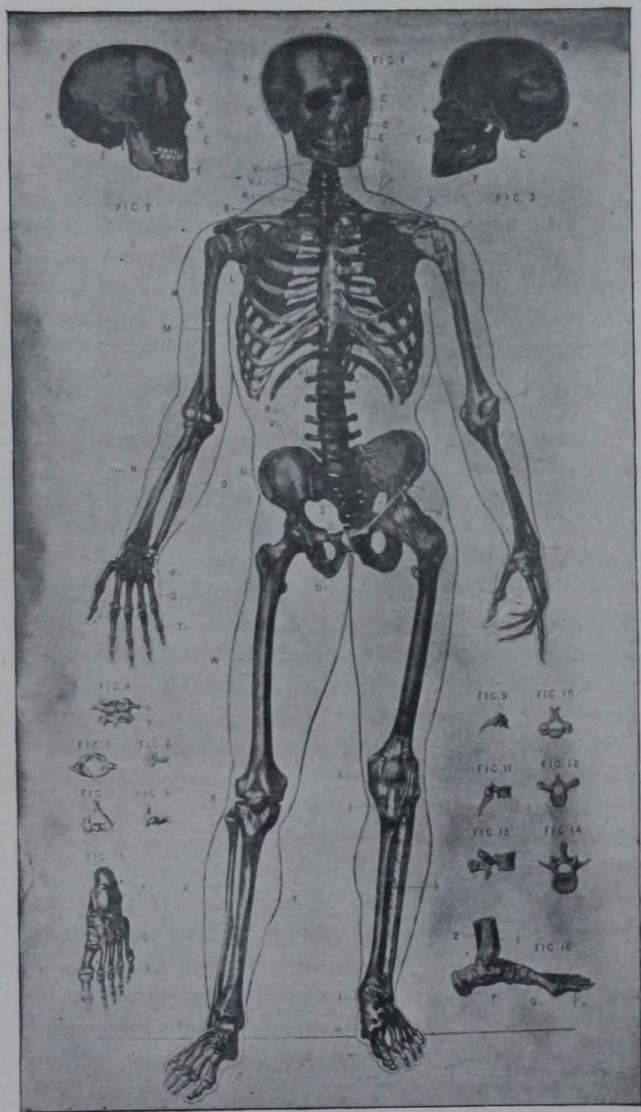
Verruca vulgaris, or the ordinary wart, commonly seen on the hands, consists of a small, circumscribed, elevated growth, having a broad base seated securely upon the skin. Their consistency is either soft or firm, the surface smooth or rough, the color that of the surrounding skin, or yellowish, brownish, or even blackish. They may develop upon any region of the body, but are most commonly seen upon the hands and fingers.

Verruca plana differs from the *vulgaris* in being flat and broad in form, and but slightly raised above the level of the surrounding skin. Their most common location is either on the back or forehead.

Verruca filiformis assumes the shape of a minute, thin, conical, or thread-like formation, about an eighth of an inch in length. The most frequent location is the face, eyelids and neck.

Verruca digitata consists of a slightly elevated, broad formation, about the size of a split pea, and marked by a number of digitations coming from its border, giving an appearance, in marked cases, resembling a crab. Their most frequent site is upon the scalp.

Verruca acuminata, known also as the pointed wart, the moist wart, the pointed condyloma, cauliflower excrescence, and venereal wart, consists of one or more groups of irregularly shaped elevations, often so closely packed together as to form a



Skeleton with Capsular Ligaments.

more or less solid mass of vegetations (*verrucae vegetantes*). Their color depends somewhat upon the degree of vascularity, varying from a pinkish, bright red to a purple color. They occur for the most part about the genitalia of either sex. Upon the penis, they usually spring from the glans and the inner surface of the prepuce; the inner surface of the labia and from the vagina in the female. They are also seen about the anus, mouth, axillae, umbilicus, and toes. They may be either moist or dry, according to their location; about the genitalia, a yellowish, puriform secretion usually covers their surface, due to friction and maceration, which, owing to the heat of the parts, rapidly decomposes, producing a highly offensive, penetrating, and disgusting odor. Their size varies from that of a pea to that of an almond, an egg, or even the fist. Their development is rapid, attaining considerable size in a few weeks.

PROGNOSIS. Favorable.

THE TREATMENT.

A solution of concentrated acetic acid, one part to five of water, applied to the wart, on the top, two or three times a day, removes them imperceptibly—that is, they disappear without knowing when. Lugol's Solution of Iodine, applied with a toothpick or brush on the crown of the wart, cures in a couple of weeks, even "seed-warts." It is said that they are "charmed away" by some. Some are removed by the pronounced emphatic therapeutic suggestion.

ICHTHYOSIS.

SYNONYMS. *Ichthyosis vera*; fish-skin disease.

DEFINITION. *Ichthyosis* is a congenital, chronic deformity or hypertrophic disease of the skin, characterized by dryness, harshness, or general scaliness of the skin, or in the outgrowth of larger masses of a corneous consistency.

VARIETIES. *Ichthyosis simplex*; *ichthyosis hystrix*.

CAUSE. Often hereditary, but not in all cases. It is to be regarded as an affection which is born with the individual, although it does not usually manifest itself until after the first or second year of life.

PATHOLOGY. "The diseased—or, better, deformed—skin is found microscopically to be hypertrophied in various degrees, according to the development of the malady; the proliferation of

its elements occurring in the connective tissue, papillae, stratum corneum, and blood-vessels. In well-marked cases of ichthyosis hystrix, the elongated papillae are surrounded by dense cones of the horny layer of the epidermis, more or less concentrically disposed, with sclerosis of the connective tissue and a relatively unchanged rete. In this last particular the dense plaque of ichthyosis differs in texture from the wart." (Hyde.)

SYMPTOMS. Ichthyosis displays a wide variation in its symptoms. In one individual it amounts to but a slight inconvenience, while in another it may manifest itself in so pronounced a manner as to be the source of great discomfort and deformity. The two varieties named represent merely accentuated types of the disorder, rare in its fullest development, and, in its slightest, much more common than is generally believed. A simple dryness and harshness of the skin, with only slight furfuraceous exfoliation, is termed xeroderma.

Ichthyosis Simplex—Is the more common variety, consisting of a harsh, dry condition of the whole surface, accompanied by the production of variously sized and shaped reticulated scales, either small, thin, and furfuraceous, like bran, or large and thick, resembling fish scales. Upon the extremities the scales usually form diamond-shaped or polygonal plates, separated from one another by furrows or lines, which extend down to the normal skin. In color the scales are either whitish, grayish, or yellowish, and often have a silvery or glistening appearance. Rarely the color is olive green or blackish (ichthyosis nigricans). The amount of scaling depends upon the age of the patient and the duration and severity of the disease.

Ichthyosis Hystrix.—With or without the development of the above variety, in this, the hypertrophy of the skin may occur in circumscribed patches or large areas, consisting of irregularly-shaped, verrucous, corneous, corrugated, wrinkled, or rugous masses, usually darker in color than those of the simple variety. They may occur upon the arms, as solid, warty patches, or upon the back, in the form of elongated, linear patches. They may constitute roughened, corrugated, papillary growths, or uneven, horny, blunt or pointed, spinous, warty formations. In the latter case the elevations may reach several lines or more, and stand out from the skin like quills upon the back of a porcupine—hence the name hystrix. The amount and extent of the hypertrophy varies; the older the patient, the more highly developed it will usually be.

COURSE. Ichthyosis simplex may involve the entire surface uniformly or appear more marked on the extremities, from the hips to the ankles and the arms and forearms. The affection is always worse in winter than in summer, the increased activity of the sweat glands at this season producing the most beneficial results. The course of the affection is essentially chronic, continuing throughout life, now better, now worse. Slight itching usually occurs.

DIAGNOSIS. The characteristics of the affection are so peculiar that an error in diagnosis is hardly possible. It is to be distinguished from the inflammatory affections of the skin which terminate in desquamation by the absence of any history of inflammation.

PROGNOSIS. While much can be done to alleviate the affection, the prognosis is unfavorable as regards permanent relief.

THE TREATMENT.

A careful study of the cell salts essential to a scientific treatment must be made. No manipulations are effectual without the normal elements exist or are supplied. Congenital deficiencies may be assimilated. Then we may promise relief. The Kali sulph. and Sodium chloride are usually the salts needed. This affection requires much study on the part of the physician, and a long continued and frequently repeated use of the remedy indicated may be required, together with the various manipulations recommended, to be of satisfactory results to the patient or the doctor. The constant exfoliation of "branny scales" are surely annoying, and these may be largely mitigated by the use of salt-water baths, and followed up by the use of olive oil, daily.

PARASITIC DISEASES OF THE SKIN.

TINEA FAVOSA.

SYNONYMS. Favus; porrigo favosa; honeycombed ringworm; crusted ringworm.

DEFINITION. A contagious affection, characterized by the development of either discrete or confluent, small, circular, cup-shaped, pale yellow, friable crusts, usually perforated by hairs.

CAUSE. The presence and growth of a vegetable parasite known as the *Achorion Schoenleinii* is the cause of tinea favosa. It is commoner in children than in adults, attacking the former,

in the first place, either *de novo* or through direct contagion, and is from them communicated to adults. It is a disease confined almost exclusively to the lower classes.

PATHOLOGY. *Tinea favosa* may have its seat either in the hair follicles and hair, or upon the surface of the skin or the nails; the former, however, are the structures most commonly attacked.

It is purely a local affection, due solely to the presence and growth of the vegetable parasite discovered by Schoenlein, of Berlin, in 1839, and named after him—*Achorion Schoenleinii*. The crusts are made up almost entirely of fungus, which is seen, upon section, with the naked eye, to be composed of a porous mass and to possess a pale-yellow or whitish color. Under the microscope it is seen to consist of both mycelium and spores in great quantity and in all stages of development.

SYMPTOMS. When the affection attacks the hairs and follicles it is termed *tinea favosa pilaris*; when the epidermis, *tinea favosa epidermis*, and when the nails, *tinea favosa unguium*. Rarely all the structures may be attacked at one and the same time; its usual seat, however, is the scalp. The disease begins by the development of one or of several pin-head-sized, pale-yellow crusts, seated about the hair follicles. In about a fortnight these crusts have increased in size and are umbilicated, termed the favus cups, are circumscribed, circular in form, and very slightly elevated above the level of the skin. In their normal condition they are of a pale-yellow or sulphur-yellow color, but after a time, from dust and other matters, they become brownish or greenish-yellow in color. The number of crusts vary from very few to immense numbers. The usual size is about that of a split pea. In *tinea favosa pilaris et capitis* the affection is often accompanied with pediculi, while swelling of the glands of the neck and small abscesses upon the scalp are not uncommon. The hairs become lusterless, opaque, brittle, and at times split longitudinally, and from atrophy of the follicles and sebaceous glands permanent baldness may result. In *tinea favosa unguium* the nails become thickened, yellow, opaque, and brittle. The disease has a peculiar odor, resembling that of mice, or of musty, stale straw.

DIAGNOSIS. In a recent case the characteristic favus cups, the pale-yellow color, the odor, and the history of contagion should render the diagnosis easy. If of long standing, however, and the favi destroyed by scratching, some doubt may exist;

but if a small fragment of a crust be placed upon a glass slide with a drop of liquor potassae, covered with a thin glass, and placed under a microscope with a power of from two hundred and fifty to five hundred diameters, the features of the *Achorion Schoenleinii* will determine the affection to be *tinea favosa*.

PROGNOSIS. *Tinea favosa* of the epidermis readily responds to treatment. *Tinea favosa pilaris* is more obstinate, and if of long duration may result in baldness.

THE TREATMENT.

We recognize the fact that a nidus must be formed, conducive to the propagation of the parasite before it takes possession; hence, wage war with the bug, exterminate him, and rectify the conditions in the circulation, and we are rid of the bug and the effects very soon. Local bathing with peroxyde of hydrogen is indicated where there is pus. Application of campho-phoenique, followed by white vaseline, exterminates the parasite, usually. These are cleanly, non-coloring ingredients, and are sufficient.

The manipulations to free the return circulation should be given every other day, and vibratory movements, gently, yet profoundly, made around the circles, ridding the dermis from pent-up capillary blood or obstruction in the veins and lymph tubes.

TINEA CIRCINATA.

SYNONYMS. *Tinea trichophytina corporis*; herpes circinatus; ringworm of the body.

DEFINITION. A contagious, parasitic affection of the skin, due to the trichophyton fungus; characterized by the development of one or more circular or irregularly shaped, variously-sized, inflammatory, slightly vesicular or squamous patches, occurring upon the general surface of the body.

CAUSES. Ringworm of the body is caused by the presence of a vegetable parasite discovered by Bazin, in 1854, termed the trichophyton, the same growth or fungus that produces *tinea tonsurans* and *tinea sycosis*. The affection is highly contagious, and is frequently communicated from one member of a family to another, although it has been determined that a certain unknown condition of the skin is requisite for its development. In children it is most frequently seen among the weakly and the poorly nour-

ished. In adults it is usually associated with a decline in the general health.

PATHOLOGY. The fungus is seated between the strata of the epidermis, more particularly in the superior layers of the rete. The presence of this foreign body produces the subsequent phenomena—a superficial dermatitis, erythema, exudation, minute vesiculation, and papulation, and, in the severe grades, tubercles and pustules. The desquamative symptoms are exfoliative—nature's efforts for relief.

SYMPTOMS. *Tinea circinata* varies greatly in the degree of its development, from the trivial complaint so often seen in children, to the chronic, extensive, and obstinate disease sometimes seen about the thighs in adults (*tinea circinata cruris*).

The disease usually begins as a small, reddish, scaly, rounded or irregularly-shaped spot of papules, which in a very few days assumes a circular form (ringworm). It continues to increase in size, the papules often changing to vesicles. A characteristic of the eruption is its healing in the center as it spreads on the periphery. Occasionally the circles or rings coalesce, forming serpiginous lesions. The usual size of a fully developed ringworm is about that of a silver quarter of a dollar.

Chronic *tinea circinata* does not present the characteristic annular form, but "are usually in the form of single or multiple, disseminated, small reddish, slightly scaly, ill-defined spots, on a level with or but slightly raised above the surrounding skin. Not infrequently they are the size of a small or large finger nail, and are irregularly shaped, and, as a rule, without line of demarcation." The "*eczema marginatum*" of Hebra is to be looked upon as a severe form of *tinea circinata*.

Tinea circinata cruris, or ringworm of the thighs, a variety of the "*eczema marginatum* of Hebra," is usually complicated with true eczema, and is a very obstinate, chronic form of the affection; it is accompanied by severe itching.

Tinea trichophytina unguium is a rare variety. The nails become opaque, whitish, thickened, and soft and brittle, especially along their free border. The microscope is essential for a diagnosis. Its course is chronic, and it is difficult to cure.

COURSE. As commonly seen, ringworm is very amenable to treatment. Occasionally, however, it exhibits great obstinacy, showing itself repeatedly in the same region, in the form of relapses, or manifesting itself from time to time in new localities.

DIAGNOSIS. *Tinea circinata* may be mistaken for squamous

or other varieties of eczema, but the circular and often annular form, the well-defined margin, the slight desquamation, and the course and history of ringworm should prevent error. Chronic ringworm is more difficult, however.

TREATMENT. Same as for *Tinea Favosa*.

TINEA TONSURANS.

SYNONYMS. *Tinea trichophytina capitis*; herpes tonsurans; ringworm of the scalp.

DEFINITION. A contagious, parasitic affection of the scalp, due to the trichophyton fungus; characterized by the development of circumscribed, vesicular or squamous, more or less bald patches, showing the hair to be diseased and usually broken off close to the scalp.

CAUSE. The result of the presence and growth of the same fungus giving rise to *tinea circinata*—trichophyton. It is an affection of childhood, seldom being seen after puberty. It is highly contagious, and may be communicated from a case of ringworm of the body.

PATHOLOGY. The parasite originally named "trichophyton tonsurans" invades the hair, hair follicles, and epidermis of the scalp, the hair, however, suffering the most severely, becoming in a short time filled with the growth to such an extent, usually, as to cause its disintegration and destruction. The hair follicle, also, becomes distended and prominently raised. The hair shaft is fractured just above the level of the scalp, and usually presents a jagged, bristly, stubble-like extremity. The epidermis of the scalp may either present the changes of minute vesicles and desquamation, or, in severe cases, oedema and inflammatory symptoms, with fluid exudation (*tinea kerion*).

SYMPTOMS. Ringworm of the scalp usually begins in the form of small, circumscribed patches, which soon become the seat of small vesicles or pustules, which terminate in desquamation, or of furfuraceous scales. The patches spread rapidly, soon reaching the size of a silver quarter to that of a silver dollar. They are circular in form, circumscribed, of a reddish, grayish, or greenish-yellow color, covered with fine or coarse scales, with the hairs broken off close to the scalp. The epidermis of the scalp is more or less raised, and the follicles are prominent, giving the characteristic appearance of the disease—the goose-skin or

plucked-fowl appearance. As a result of the loss of hair, baldness, more or less complete, but temporary, exists. Itching, slight or severe, is a constant symptom.

Ringworm of the face or body (*tinea circinata*) may complicate *tinea tonsurans*. Chronic ringworm of the scalp is the same condition in a more chronic form, having existed for six months to a year or two.

Tinea kerion is a severe variety of *tinea tonsurans*, "characterized by oedema, inflammation, and the exudation of a viscid, glutinous, yellowish secretion from the opening of the hair follicles. When fully developed the patches are yellowish, reddish, or purplish in color, and are more or less raised, oedematous, and boggy. They are uneven and honeycomb-like (hence the name *kerion*), and studded with yellowish, suppurative points, or, later, with small cavities or foramina, the openings of the distended hair follicles, deprived of their hairs, which discharge a mucoid, honey-like fluid." The patches are tender, painful, and at times the seat of itching. The course of the affection is chronic.

DIAGNOSIS. The diagnosis is usually unattended with difficulty, if the characteristic circumscribed vesicular or scaly patches with stubby hair be present.

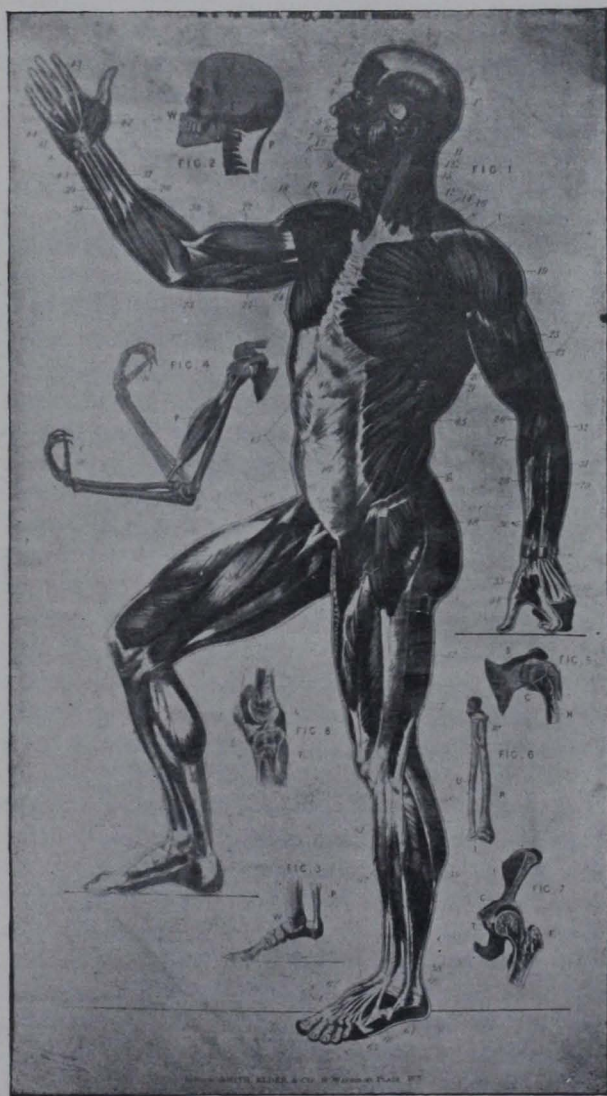
Squamous eczema somewhat resembles *tinea tonsurans*, but the hairs are normal in eczema and firmly imbedded in the follicles, while they are almost always stumpy in ringworm, and in those cases in which they are not broken off, if pulled, they easily fall out. Ringworm is contagious, eczema is not.

Alopecia areata presents a white, ivory-like bald patch, devoid of scales, eruption, or hair. Ringworm has the vesicular or scaly patch, with broken-off hairs.

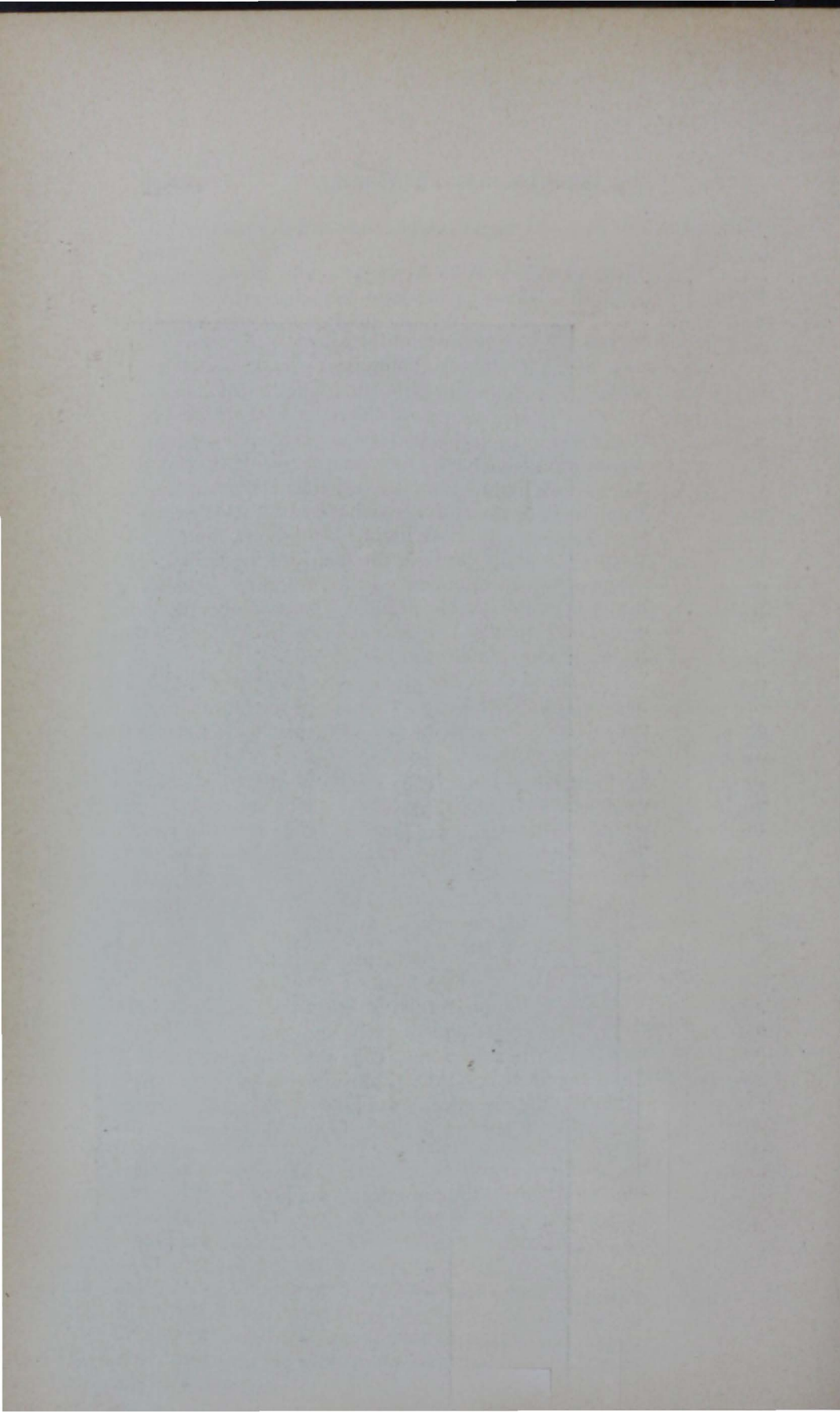
In any case of doubt the microscope will readily determine the diagnosis, if "one or two of the short, stumpy hairs should be placed upon a slide, with a drop of liquor potassae and permitted to stand a few minutes, when, under a power of two hundred and fifty diameters the fungus, as well as the lesions of the hair, will be visible."

PROGNOSIS. Favorable, although obstinate in chronic cases. Relapses are of frequent occurrence.

TREATMENT. Same as for *Tinea Favosa*.



The Muscular System, Action of.



TINEA SYCOSIS.

SYNONYMS. *Tinea trichophytina barbae*; *sycosis parasitica*; barbers' itch; ringworm of the beard.

DEFINITION. A contagious, parasitic affection of the hair, hair-follicles, and subcutaneous tissues of the hairy portion of the face and neck in the adult male, due to the *trichophyton* fungus; characterized by the development of tubercles and pustules.

CAUSES. *Tinea sycosis* is the result of the presence and growth of the same vegetable parasite that causes *tinea circinata* and *tinea tonsurans*—*trichophyton*—which invades the hair follicle and hair. It is highly contagious, and is said to be acquired, in most cases, at the hands of the barber (?). It is not a very common affection. Like the other vegetable growths, it seems to require some peculiar, unknown condition of the skin for its development. It may develop from a case of *tinea circinata* or develop simultaneously with it.

PATHOLOGY. The parasite finds its way into the hair follicles and attacks the root and shaft of the hair, causing inflammation, followed by more or less follicular suppuration and general infiltration of the surrounding tissues. The irritation caused by the presence of the fungus results in inflammation of the subcutaneous connective tissue and the well-known tubercular formations peculiar to the affection. They are firm, comparatively painless, and manifest but little disposition to undergo change, remaining during the presence of the fungus and finally gradually disappearing without leaving a scar. Under the microscope the parasite is plainly discernible.

SYMPTOMS. Barbers' itch begins as an attack of *tinea circinata*—as one or more reddish, scaly patches. Soon the redness and desquamation become more decided, attended with swelling and induration. The hairs will also be dry, brittle, inclined to break, and many of them are already loose. The process rapidly increases, the skin becomes distinctly nodular and lumpy, and points of pustulation develop about the openings of the hair follicles. The subcutaneous connective tissue is also involved, giving rise to thick, firm masses of induration. The surface has a dark red or purplish color, and is studded with variously-sized tubercles and pustules. In some instances the number of tubercles are in excess, while in others the pustules are more numerous, numbers of them discharging, and are succeeded by thick crusts, which are often so abundant as to stimulate pus-

tular eczema. The hairs are always diseased, and break off, either in the follicles or just above the level of the surface. Those not breaking drop out, leaving the region partly or wholly devoid of hair. The most frequent locations attacked are the chin, neck and submaxillary region. One or, what is more common, both sides of the face are involved.

Itching, burning, pain, and swelling always accompany the affection, varying in intensity from moderate to very severe.

The course of the affection is usually chronic. Relapses are frequent, unless most thoroughly eradicated.

DIAGNOSIS. Sycosis non-parasitica occasions difficulty of diagnosis at times. The points of difference, however, are usually so marked that error should not occur. Sycosis non-parasitica is a chronic, inflammatory, non-contagious affection of the hair follicles, characterized by the development of papules or pustules, which are perforated with hairs, the hairs themselves being unaffected. The upper lip, cheeks, and chin are the parts mostly involved. If of long duration, some inflammatory thickening results. In tinea sycosis or sycosis parasitica the skin and subcutaneous connective tissue are extensively involved, as manifested by the induration and formation of the characteristic tubercles. The upper lip is rarely invaded, the hairs are diseased, broken off, or loose, and under the microscope reveal the parasite.

Pustular eczema resembles tinea sycosis, with extensive pustulation and crusting. But in the former the hairs are not involved, nor are the characteristic tubercles present.

TREATMENT. Same as for Tinea Favosa.

TINEA VERSICOLOR.

SYNONYMS. Pityriasis versicolor; liver-spots.

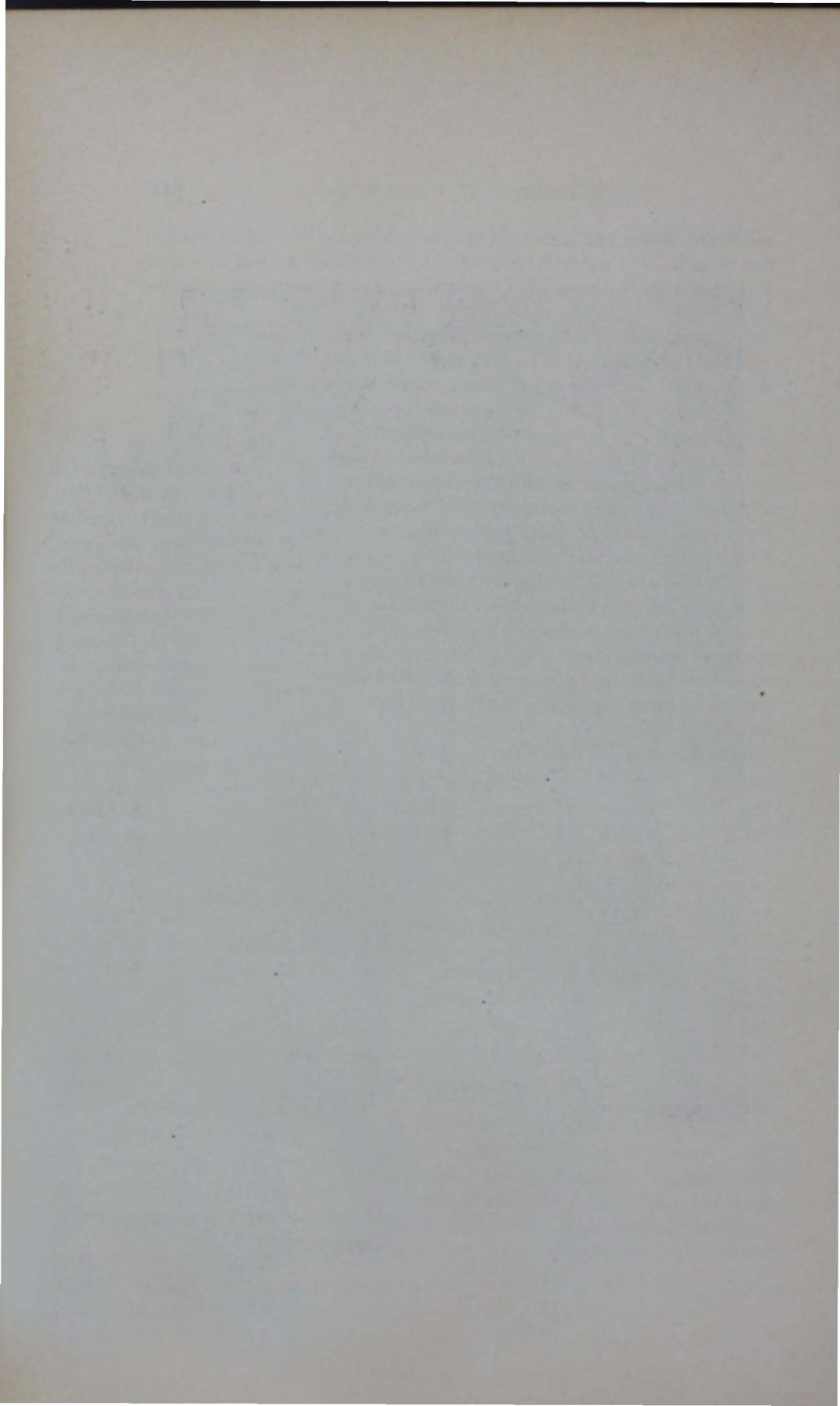
DEFINITION. A contagious, parasitic affection of the skin, due to the microsporon furfur; characterized by the occurrence of variously-sized, irregularly-shaped, dry, slightly furfuraceous, yellowish spots upon the chest or other portions of the body.

CAUSE. Pityriasis versicolor is the result of the presence upon the surface of the skin of a vegetable fungus termed microsporon furfur. It is a mildly contagious affection seen after puberty. It is said to occur most frequently in those suffering from wasting diseases, particularly phthisis pulmonalis. It is not connected with any affection of the liver, as supposed by the laity.

PATHOLOGY. The fungus permeates the horny layer of the



Muscular System (Front View).



epidermis, never the hair or nail, and gives rise to the irregular-shaped and sized maculae, of a yellowish or brownish color. As a rule, it gives rise to neither hyperaemia nor inflammatory symptoms.

SYMPTOMS. Tinea versicolor occurs in the form of irregular, roundish, circumscribed, or reticulated maculae. The spots vary in size from that of a small silver coin to that of the hand. By coalescing they often cover a greater portion of the chest, their most usual site. Upon close inspection the surface of the maculae is seen to be covered with furfuraceous scales, and if the scales be not visible, scraping with the finger nail will demonstrate their presence. In color the spots vary from a delicate buff or fawn shade to a yellowish, deep brown, and, rarely, even blackish hue. At times mild itching accompanies the eruption.

DIAGNOSIS. The characteristics of the eruption are so distinct that errors in diagnosis can hardly occur. If any doubt exist, a few of the scales upon a glass slide, with a drop of liquor potassae, and covered with a thin glass cover and placed under a microscope with a power of from two hundred and fifty to five hundred diameters will readily determine the presence of the fungus.

PROGNOSIS. Favorable.

THE TREATMENT.

This affection and Tinea Sycosis require the same or similar treatment, and that similar to that recommended for Tinea Favosa; we refer the reader thereto. The treatment may be varied by using a weak solution of salt water to cleanse the parts first. The vibratory manipulations should not be neglected, and where the hair follicles are affected it suggests more forcibly the use of the salt baths, and the profound manipulations, after the larger of the veins have been freed in the neck and jaws. Remember that venous blood is largely responsible for most of the affections of mankind.

SCABIES.

SYNONYM. The itch.

DEFINITION. A contagious, animal parasitic disease of the skin, due to the *acarus* or *sarcoptes scabiei*; characterized by the formation of cuniculi (burrows), papules, vesicles, and pustules; followed by excoriations, crusts, and general cutaneous inflammation, and accompanied with itching.

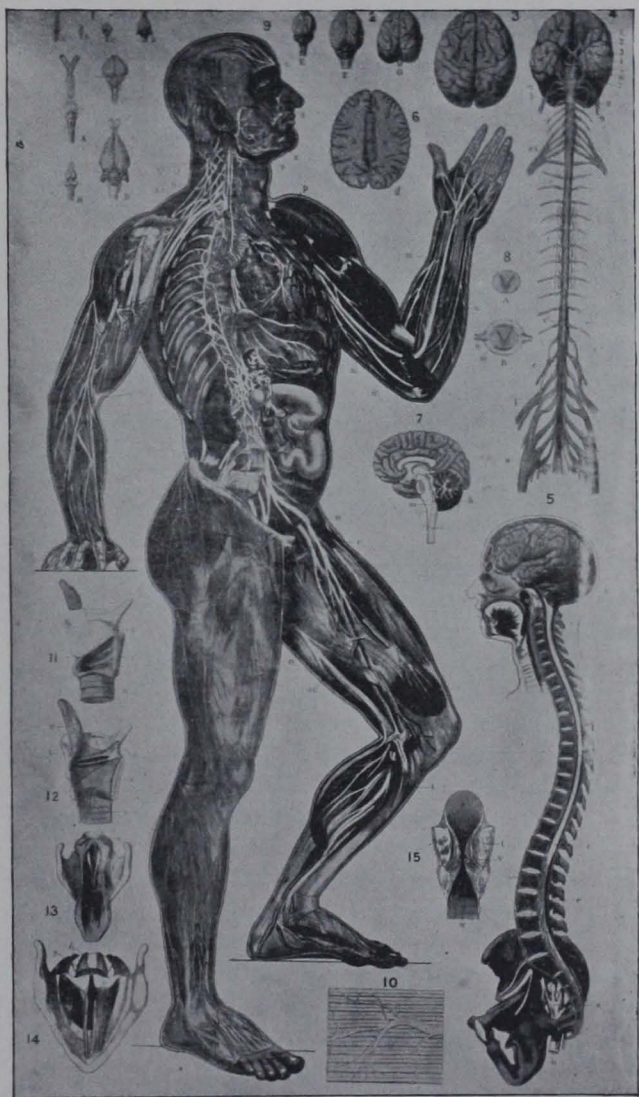
CAUSE. Contagion. The only cause is the presence of the animal parasite, the *acarus* or *sarcoptes scabiei*. The affection occurs at all ages and in every walk in life.

PATHOLOGY. Scabies is an inflammation of the skin with the development of papules, vesicles, pustules, excoriations, and subsequent crusting, the result of the ravages of the animal parasite, together with the irritation produced by the scratching of the patient.

The parasite *acarus*, or *sarcoptes scabiei*, is a minute creature, barely visible to the naked eye as a yellowish-white, rounded body. The female is the most commonly met with, the males being said to take no part in causing the affection, and so are rarely seen. They are said to die in about a week after copulation with the female. The female finds her way by boring through the horny layer into the mucous layer of the epidermis, and, being impregnated, begins at once laying the eggs and at the same time making her burrow. A variable number of eggs are deposited, usually about a dozen, after which she perishes in the skin. The ova hatch out in eight or ten days.

SYMPTOMS. Scabies being an artificial dermatitis or eczema, according to the amount of irritation produced by the presence of the parasite and the traumatism the result of the severe scratching of the patient. Immediately upon the arrival of the mite upon the skin it begins its work of burrowing, and very soon a burrow or *cuniculus* is formed, in which the eggs are deposited, and which also becomes the habitat of the female during the remainder of her life. The ova are hatched in about one week after their deposit, and they at once begin to care for themselves and to burrow, resulting in the formation of as many additional *cuniculi* as there are active female mites. It is the presence of these burrowing parasites that constitutes the irritation resulting in the inflammation of the skin, characterized by the formation of minute papules, vesicles, and pustules, with more or less inflammatory induration. Add to these the excoriations, scratch marks, fissures, torn vesicles, and pustules with yellow and bloody crusts, caused by the scratching, and a picture of the fully developed disease is seen.

The burrow, or *cuniculus*, as it is termed, is formed by the mite entering and making its way beneath the horny layer of the epidermis, which is raised, very much as a mole undermines the ground. It occurs as a slight linear elevation of the epidermis, varying from a half a line to four or five lines in length, and



The Nervous System, General Distribution of.

having an irregular or tortuous course. Its color is whitish or yellowish, speckled here and there with dark dots. At either end the cuniculus terminates in darkish points, the more prominent of which represent the parasite.

The papules are the first inflammatory lesion, are numerous, and of small size, and may be the extent of the disease. The vesicles are the next stage, varying in size and number, having an inflamed base, sometimes presenting cunicula upon their summits. The pustules represent the completion of the inflammatory action, their size and number varying with the severity of the irritation.

The intense itching, which is worse at night, results in excoriations, torn papules, vesicles, and pustules, followed by crustings, which after a time disguise the characteristic lesions. The regions of the body attacked are the hands, especially the sides of the fingers and the folds where they join the hands. After a time the wrists, penis, and mammae, and around about and upon the nipples, are invaded. Persons predisposed to eczema have this affection developed, in addition to the simple dermatitis, by the ravages of the itch mite.

DIAGNOSIS. A case of scabies seen before irritated by scratching, presents no difficulty in diagnosis. The presence of the burrows always suffices for the diagnosis, but these are not always discoverable. The location of the eruption always points strongly to scabies. A history of contagion is of value. All doubt can be set at rest by the aid of the microscope.

PROGNOSIS. Always favorable, relapses only occurring when the treatment has been imperfectly carried out, or where the individual has re-contracted the disease.

THE TREATMENT.

Yes, got it at last. Now how to cure it. Well, prepare yourself for a fight. Extermination is the only hope of escape for you from the bug. You are urgently advised to use lavishly, yet lawfully, of that large commodity promised as a cleanser of, or a fire-kindler for, a part of the human race in the final wind-up. It is said to be effectual as a sin-destroyer, then, among the larger bugs. You try it on these smaller ones. The best, and therefore the effectual, way to use it is as follows: First prepare the subject (the person) by a thorough bathing with soap and water. Dry the skin with a dry towel, then have the whole body anointed with flour of sulphur mixed in sweet lard until it is quite thick (pasty), then put on a clean gown, put on

clean sheets, clean everything. Next morning bathe with soap and water; put on clean clothes. Next night bathe again; put on the sulphur salve. Go through this same procedure three times and you are cured. Do not put on the clothes first taken off until fumigated, heated and thoroughly cleansed. The subsequent baths of salt water will repair abraded integument where the animalcule has made inroads on the skin. Osteopathic manipulations sustain no relationship to this sort of bug. He must be exterminated.

PEDICULOSIS.

SYMPTOMS. Phthiriasis; morbus pedicularis; lousiness.

DEFINITION. A contagious, animal parasitic disease of the head, body, or pubes, due to the presence of pediculi and characterized by the wounds inflicted by the parasite, together with excoriations and scratch marks.

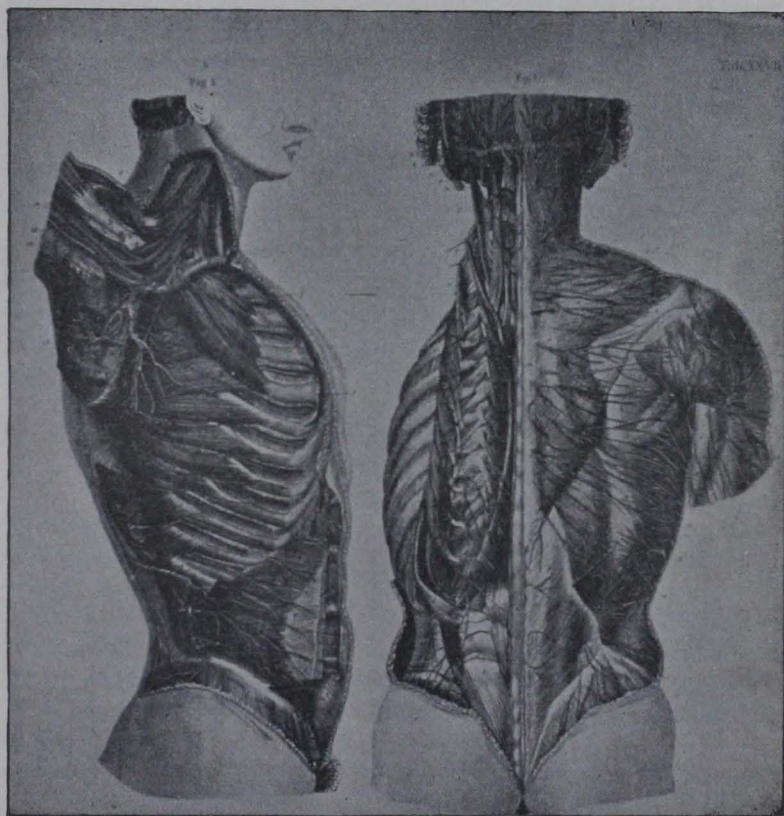
VARIETIES. Pediculosis capitis; pediculosis corporis; pediculosis pubis.

CAUSE. The cause is the presence of the parasite, the result of contagion, direct or indirect. The view of "a spontaneous generation" of pediculi is not accepted by the great majority of observers.

PATHOLOGY. The lesion produced by the presence of the pediculi is a minute hemorrhage, caused by the parasite inserting its sucking apparatus, or, as it is termed, its haustellum, into a follicle, and obtaining blood by a process of sucking, and not by biting, as is generally supposed. The presence of the parasite in any great numbers brings about a peculiar irritable state of the skin, which gives rise to an irresistible desire to scratch, as a consequence of which the surface is markedly excoriated and lacerated.

SYMPTOMS. The symptoms which arise from the presence of the parasite in different localities are somewhat different, and call for separate considerations.

Pediculosis Capitis.—This variety is caused by the presence of the pediculosis capitis, or head louse. The ova, or nits, are readily recognized at a distance. Their favorite seat is the occipital region, either upon the surface of the scalp or upon the hair. Their presence gives rise to considerable irritation, itching, and consequent scratching, resulting in the wounding of the scalp,



Distribution of Nerves.

with oozing of a serous or purulent fluid mixed with blood, which soon mats the hair and forms into crusts. In those predisposed to eczema, the presence of the parasite will give rise to that condition. The general health is usually unaffected by the presence of the pediculi.

Pediculosis Corporis.—This variety of the pediculosis is caused by the presence of the pediculosis corporis, or body louse, or more properly termed the pediculus vestimenti, or clothes louse. Its color, when devoid of blood, is dirty-white or grayish, with a dark line around the margin of its abdomen. Its habitat is the clothing covering the general surface, remaining upon the skin only long enough to obtain sustenance. The ova are usually deposited in the seams of the clothing, the lice being hatched within the week. Occasionally a few of the pediculi may be observed crawling about the surface, or in the act of drawing blood. As they move over the surface they give rise to an intensely disagreeable itching sensation, to relieve which the patient scratches, which in turn gives rise to the characteristic lesions of the affection.

The lesions are numerous. The scratch marks are scattered here and there, long and streaked, or in other places short and jagged, the excoriations and blood crusts varying in size from a pin-head to a split pea or even larger, with irregularly-shaped pustules. In addition to the lesions resulting from the scratching, are seen the primary lesions, consisting of minute reddish puncta with slight areolae, the points at which the parasite has drawn blood. In cases of long standing, a brownish pigmentation of the whole skin may result from the long-continued irritation and scratching. The favorite site of the lesions are the back, especially about the scapular region, the chest, abdomen, hips, and thighs.

Pediculosis is seen most commonly among the poorer classes and especially the middle-aged and elderly.

Pediculosis Pubis.—This variety of pediculosis is caused by the presence of the pediculus pubis, or crab louse. Although having its seat of predilection about the pubes, it may also infest the axillae, sternal region in the male, beard, eyebrows, and even eyelashes. They may be found crawling about the hairs, but more commonly hugging the surface closely. They infest adults chiefly, and occasion symptoms similar to those described in connection with other species. They are usually contracted through sexual intercourse, although occasionally they are pres-

ent in cases in which they have not been communicated in this way, and where no explanation as to the mode of contagion can be suggested. The itching varies from slight to severe.

DIAGNOSIS. When violent itching exists in any case, without marked eruption, the possibility of the presence of pediculi should always be entertained, and if carefully sought after are found.

PROGNOSIS. Favorable, if the treatment be thoroughly carried out.

THE TREATMENT.

The most effectual treatment for the aforesaid animal is to supply moderately strong tincture of *cocculus indicus* (fish berries) occasionally. There is no trouble about using this, but do not saturate too much of the scalp at one sitting, and do not leave it on the hair, to be absorbed into the scalp. Simply moistening the hair and then bathing the scalp shortly afterward is sufficient. There is no danger, if not used too strong. Simply dampen the hair. Campho Phoenique is efficacious, locally applied.



The Sympathetic Nerve

EYE DISEASES.

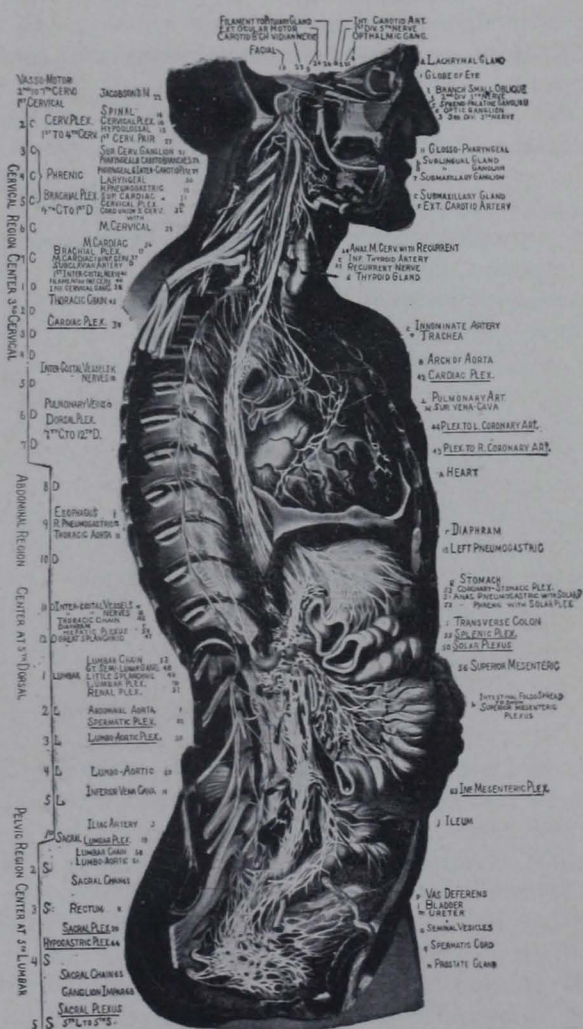
Inasmuch as all inflammatory action is the result of venous obstruction to the circulation, caused by pressure upon the veins or lymphatics, there is but one thing to do in every pathological condition, and that is, to Take Off the Pressure; the process by which that is done becomes a matter of the first importance. The results of local medication are to be seen everywhere, for many are the victims of blindness, malformations, cicatricial contractures, distortions and leucoma. These and many results too numerous to detail here follow the use of lotion treatment for sore eyes, applied by ophthalmologists and eye specialists, whether for dilating the pupil or for reducing inflammation, in acute and chronic affections. There have been cast off on every community one or more victims, whose sight might have served him or her for a lifetime had no such remedy been used. How many precipitations of the "sugar of lead" are to be seen even now all over the country, which are due to a lotion of lead and opium applied to cure acute sore eyes, due to corneal ulceration, unnoticed by the person applying it, or if noticed, who did not know the results of such a remedy applied to such a condition. Astringents, disinfectants, soothers, dilators, all sorts of medication, have been used in every condition that the eye could be afflicted; have been dropped into the eyes, and some "famous eye salve" has been rubbed on the lids and put in the "corners of the eyes" to cure sore eyes, without regard to condition or consequences. Traveling charlatans have reaped rich harvests off of many a poor victim because of eye troubles. Chronic trachoma (common granulated lids) has been the worst abused of any pathological condition, and with less satisfactory results perhaps of any eye affection, it being the result of badly treated, acute inflammatory conditions. Here is where the stimulation remedies have been dumped in the most frequently. One noted oculist stated to a class of over a hundred pupils, that he "had treated granulated lids for over thirty years, and if he had cured a single case, he had no recollection of it." Medicines, such as nitrate of silver, have been dropped into the eyes until they were literally colored a

dingy brown, and had produced atrophy of the tarsal fold, and yet had not overcome the granulations. Others have had strong astringents put into the eyes until they became so painful that the poor victim would refuse to use it longer on account of the pain produced. We might cite any number of instances of medication, and results of treatment, that seem utterly inhuman, repulsive and ridiculous to the common sensibilities of intelligent people. Be it ever to the praise of Osteopathy, that it offers immunity from such abuse. It surely offers a boon to suffering humanity in this regard, as well as many others that seem, to the prejudiced, incredible. Our means of taking off the pressure comes in good play here, and marvelous results follow, seemingly superhuman, but reasonable.

TREATMENT FOR ALL EYE AFFECTIONS.

In all cases of inflammation of the eye or any organ in the body, the indications are visible to the Osteopath. There is an excess of venous blood there. This blood is prevented from returning through the veins by contracture of some one or more muscles, and when the obstruction is removed, the blood flows from that part naturally, hence the excess of accumulation ceases, the inflammation subsides, frequently at once.

To accomplish this in cases of inflammation of any kind in the eye, begin by raising the clavicle. This removes the obstruction from the larger veins; now begin with the neck muscles, remove all the rigidity, stiffness, the contracture from all of them, as has been shown in illustrations for neck treatment; stretch the neck, with the spinal column, rotating the neck one-fourth round while extended, then remove the pressure at the angles of the jaws; treat the ears with the vibratory movements, then the temples, forehead, inner canthus and papillae of eyes with thumb and finger, and manipulate the face, especially around the eyes, inside the bony margins, and move all of the obstructed blood from the nose, cheeks, around the eyes; divulse the nostrils, and finally treat the eyelids, as shown elsewhere, by raising the lid with the thumb and finger of one hand, and introduce a finger of the other hand under the upper lid, at the outer canthus, clear into the eye, as far back as the retrotarsal fold, and then bring the thumb down on the integument of the lid, in juxtaposition to the fingers—use considerable pressure, as well as stretching the lid; move the thumb and finger little by little along to the inner canthus, pressing at each step, until the inner canthus is reached; then, turning the finger, palmar surface toward the side of the



Sympathetic Nerve Centers, to Obtain, from
Peripheral Influences.
The Salient Points of Impression.

nose, use considerable pressure at that point, and when done, remove the finger at once, suddenly; and then bathe the eyes with a solution of salt and water—a teaspoonful to the pint of water. The operator should be sure to well cleanse his own hands first, then dip the fingers into water before introducing them into the eyes. Care must always be had regarding the proper pressure; too hard produces ecchymosis, but moderate pressure squeezes the fluids onward into their normal channels, and empties the congested blood therein.

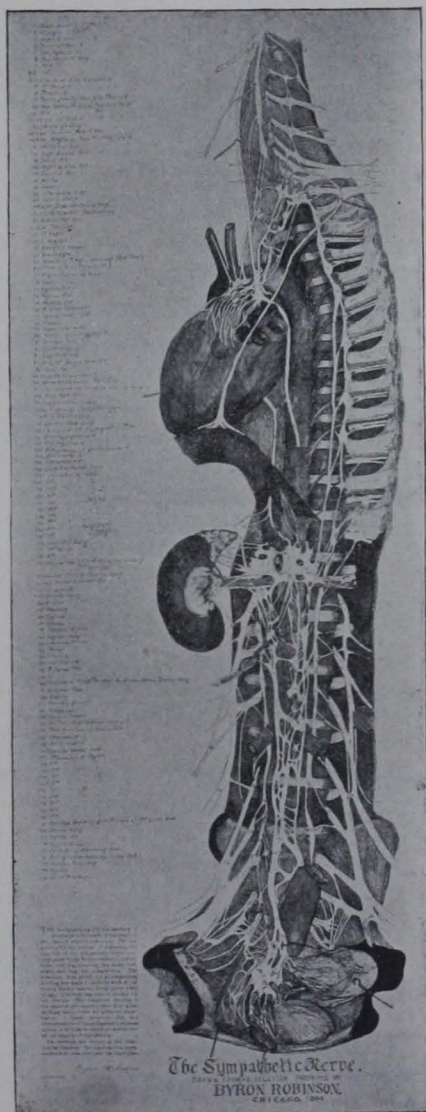
The treatment for internal eye troubles is the same—empty the outgoing channels and let in arterial blood. Pterygium, trachoma, leucoma, blepharitis marginalis, cataract, ulcerated cornea, iritis—in fact, all the inflammatory processes, acute or chronic—are treated on this same principle, removing the obstruction in the blood channels. Let the fluids pass on in their natural way, then inflammations cease.

In addition to this treatment, Cataract should have the following treatment, to-wit: Place thumb against the eye-ball, press gently, and thump against the nail with the forefinger—what we call a snapping against the nail of thumb that is pressed against the ball of the eye (on the outside of the lid, of course), three of four times. Treat this way two or three times a week for Cataract. Other treatments should be repeated as often as every four or five days.

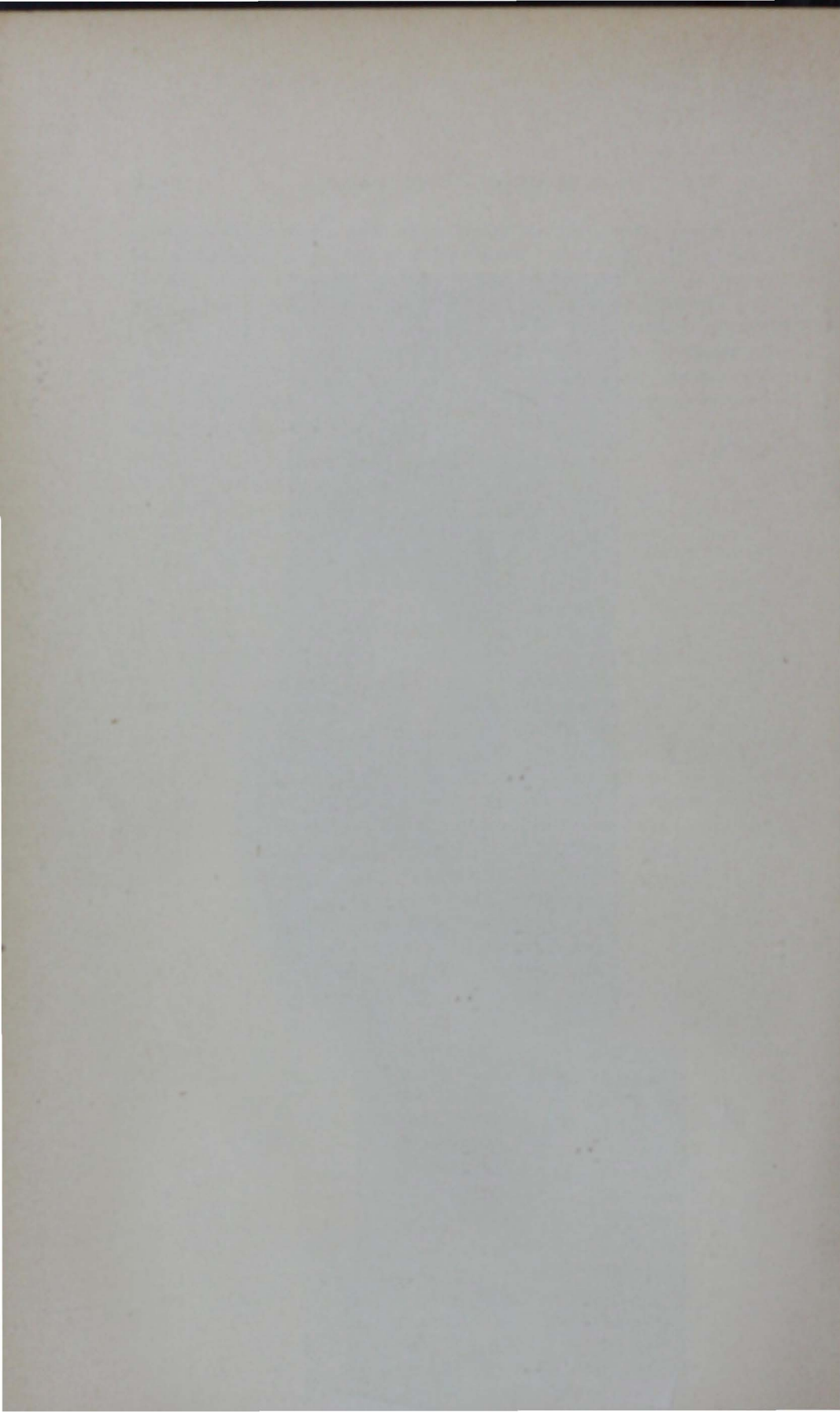
CATARACT.

A degenerative condition of the crystalline lens, which renders it opaque, incapable of transmitting the rays of light. It is called traumatic, when caused by a wound; senile, when resulting from age. Osteopathic treatment, in the early stages, will be useful, in some cases making a perceptible improvement in a short time, if at all. In addition to a thorough neck treatment, extend the neck and treat the muscular system, so as to remove contracture, and re-establish normal circulation, so that arterial blood can reach the media of the eye and build up the waste tissue and open the channels for the debris (degenerated tissue). This promises a change therein. There have been some cases cured in this way. After this treatment, at the same sitting, the operator must treat the eye itself, manipulating all around it; and then having the patient close the lid, let the operator put the palm of his thumb on the outside of the lid, over the eye-ball, so as to

gently press thereon, and while doing so use the forefinger of the other hand to snap against the thumb nail strongly enough to jar the whole eye-ball, together with the lens. Three or four such general and special thumps against the thumb should be done at intervals of a couple of days. This tends to promote absorption—a rational means of curing the opacity. Several weeks may be necessary to suffice, but as cloudiness disappears, the sittings should be further apart, and the treatment more lightly applied to the eye.



Showing Vaso-motor Filaments
 and Solar Plexus, etc.

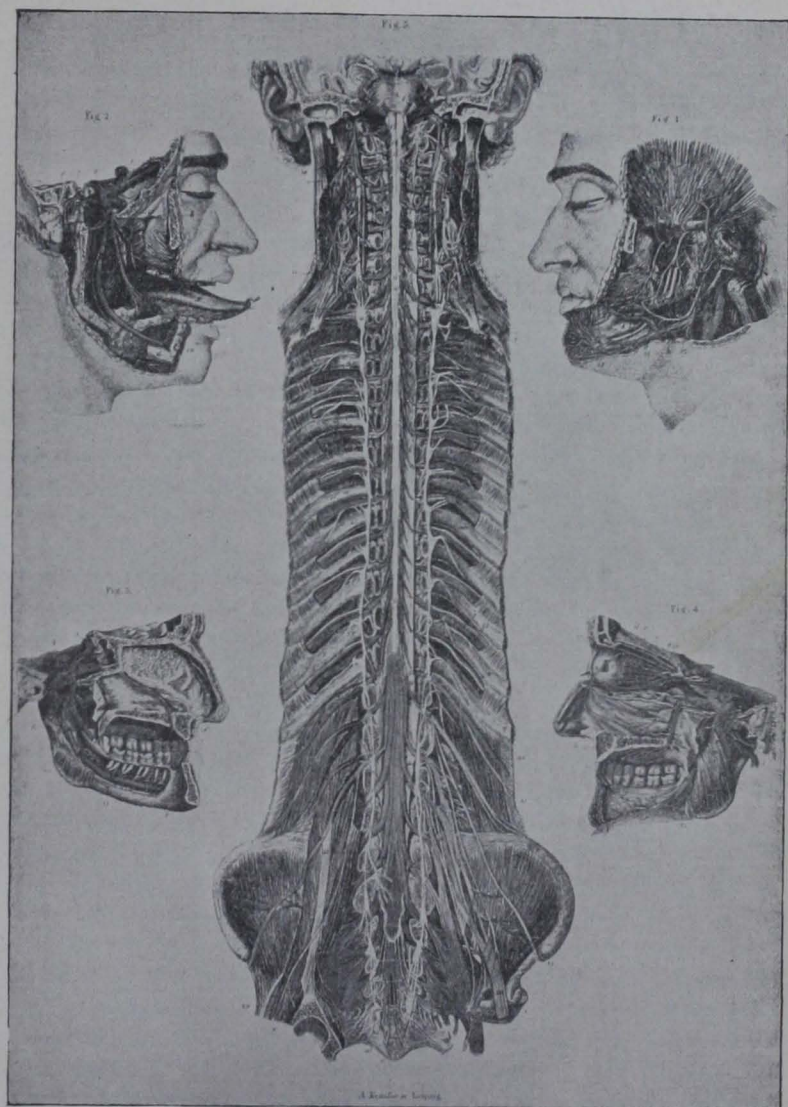


OSTEOPATHY IN OBSTETRIC PRACTICE.

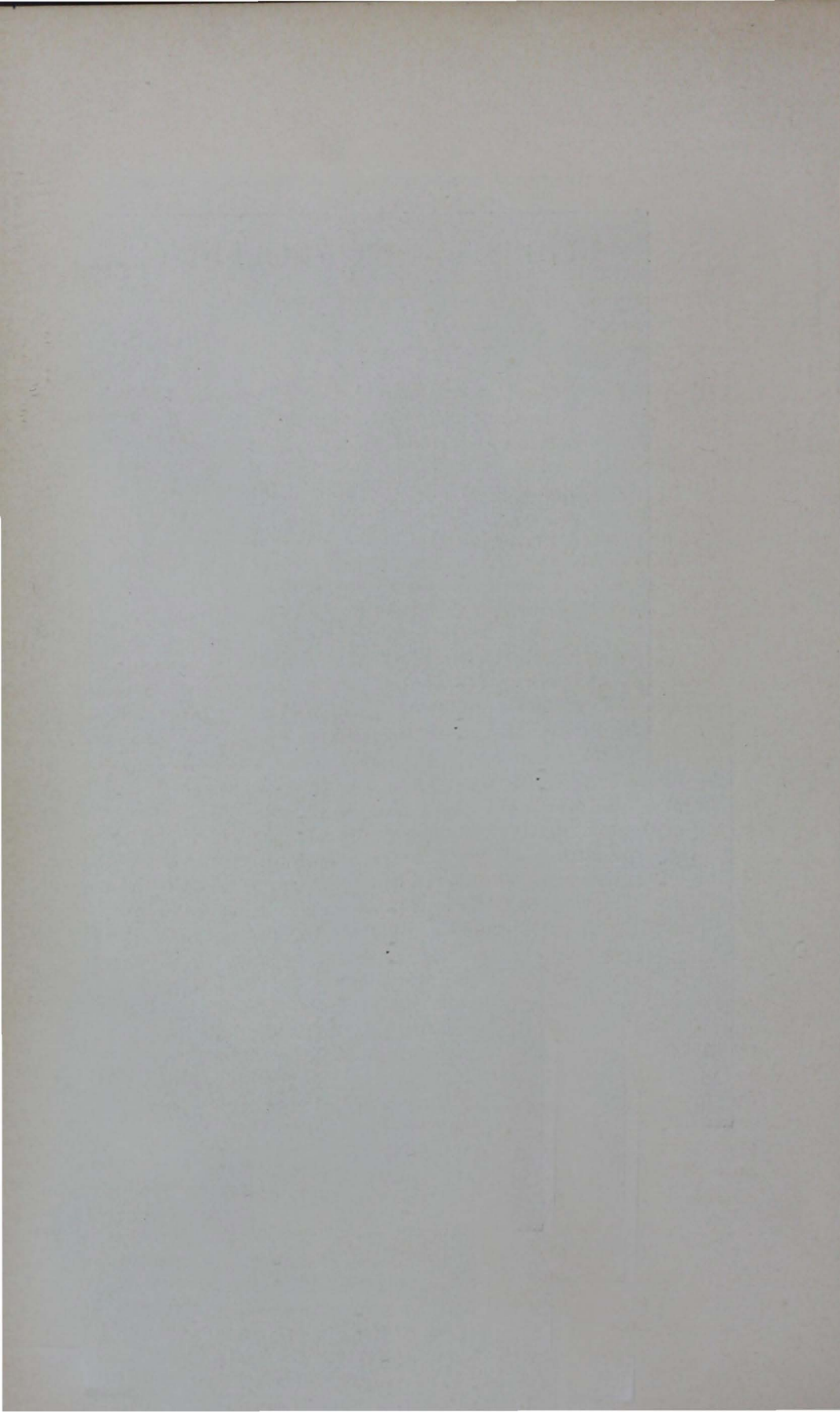
While it is not the province of this book to enter into the domain of obstetric practice, it would not be doing justice to the reader to leave out of account the special advantages derivable from the application of the principles of Osteopathy, as applicable to females during the stage of confinement. We reach through the terminal filaments of the sympathetic nervous system in and around the organ known as the clitoris. By pressure on either side of the clitoris, with the fingers, so placed as to press on, and at the same time upward, moderately, hard, firmly, a reflex result follows, in which contracture of the circular fibers of the fundus of the uterus ensues, the os dilates, normal propulsive pains ensue, and labor proceeds naturally; all unnecessary flying pains cease, and the process becomes one of satisfaction to the parturient, rather than a dread. This pressure completely controls the action as well as the process of labor, and shortens labor, in many instances, several hours; saves maternal exhaustion; directs all the forces into the proper channels, prevents lacerations, inertia, prolapsus, evil after-effects, and does away with the mental forebodings of probable consequences according to other methods. This pressure removed at any time induces extreme pain, and tends to retard progress, therefore it should be continued until labor is fairly well advanced, when, if changed to either side of the last three or four lumbar vertebral region, the pressure tends to continue propulsion, terminating in normal rapid delivery. Support should be given to the perineum while the last strait is being passed by the fetal head and shoulders. The pressure as described relaxes the cervix in from one to two hours completely. This should be done during the first stages of labor, while the pressure on the lumbar region should be done during the last stages. The demonstration of the controlling influence of the nervous system is beautifully and wonderfully illustrated here, in this, the most dreaded and most sublimely

interesting period of anxiety in all of the phases of the life of the mother! If Osteopathy had made no other advances beneficiary to the human race, this ought to suffice to give it a place in the highest rank—on the topmost pinnacle of excellence. The means of soothing the pains of our better part of creation, our loved ones, in the very act of bringing forth a human being, fraught with such marvelous possibilities, should claim our most grateful appreciation. This alone immortalizes the science of Osteopathy. It is par excellent!

Practical experience along these lines continues to unfold the wonderfulness of results obtained through the proper application of stimuli to the sympathetic nerves that control every tissue in the body normally, when properly directed.



Nerve Plexuses—Deeper Structure and Plexuses.



OBESITY—CORPULENCE.

This is a matter that concerns many persons now-a-days, and some would-be-wise ones are claiming to "antidote fat" by manipulations of the "form divine," and deceive the poor victim; (fat, I should say, for he grows "fatter and fatter," as the manipulations applied to "thin him down" go on.) This subject deserves a special consideration.

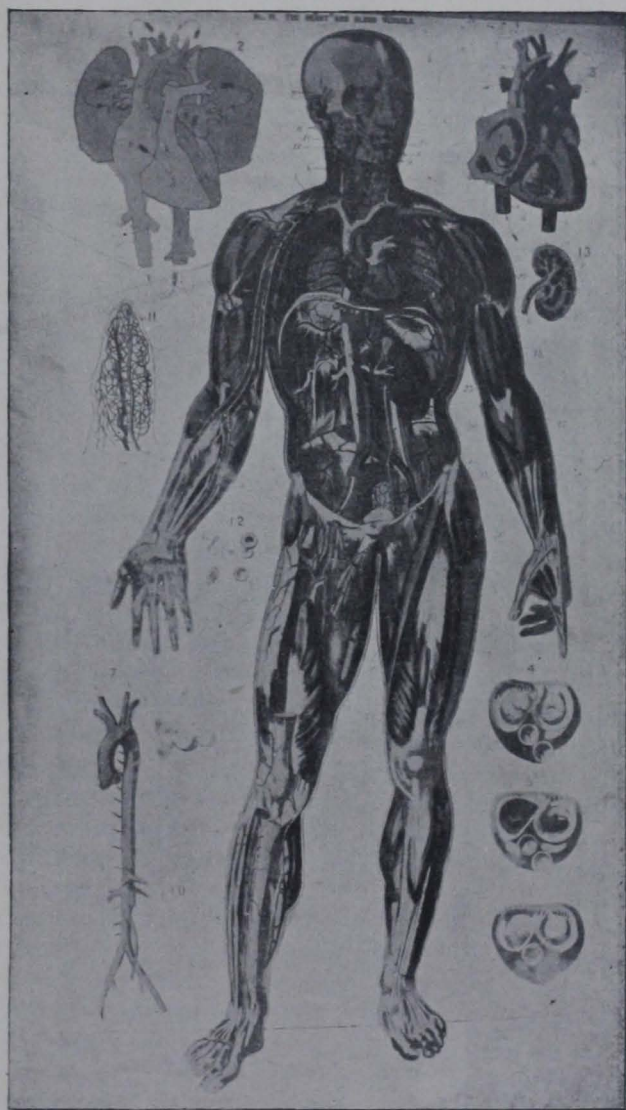
To understand the philosophy of the accumulation of adipose, we must have recourse to the digestive system. Voit and Pettinkofer in their investigations demonstrated that certain kinds of foods, such as albuminoids and carbo-hydrates, or food containing these, tended to a precipitation or an increase of fat, and that beer-drinkers constitute the larger majority of such persons, although he recognizes heredity as in some way connected with this tendency. This we can not agree to, for very frequently persons in the same family become fat, while others are lean. This condition is doubtless due to the deficiency of pancreatic secretion, for it is now regarded by physiologists that this organ is the generator of "fat dissolving material," and that by normal action of this gland, with the regularity as to time and quantity of such food as can be digested properly, the normal tissues are maintained. Obesity, therefore, may nearly, if not always, be attributable to either more fatty matter than can be dissolved (converted into soap), by the alkalinity of the pancreatic secretion, or that the drain is too often made on the organ by too frequent resort to it for secretion to digest "between-meals luncheons." When it is known that every organ in our body is kept up, maintained, regulated, by a proper supply of blood, and that this blood must contain the proper elements in due proportion, and that this proportion is largely due to the food eaten, the time it is taken into the stomach, the ability of the organs concerned to manufacture food into normal, natural material, and then consider that the organs of digestion are the most abused organs in the body, some idea may be had why obesity on the one hand, and emaciation on the other, are so

prevalent. A normal digestive apparatus is seldom found. This organ (the stomach) needs, above all things, rest, then its functions will be properly performed. Digestion will be perfect, dyspepsia will cease, obesity cease, and health will be established. In all cases where obesity exists, give the digestive organs rest, and obesity will begin to decline. Stop between-meals nibbling, beer and albuminoids and carbo-hydrates, and let the organs that manufacture digestive secretions rest, then abnormalities will be corrected in a natural manner. The crowding of the baby's stomach is the source of a large per cent. of its ills. The mother believes that it should be full all the time to make it grow. If it from any reason has gone four to six hours without its meal—"Oh, the dear baby is starved to death"; and if it gets sick, nothing is more annoying to a doctor than a constant appeal to him to know what "to feed the baby." "Doctor, my baby hasn't had a mouthful of anything to eat for five hours. Do tell me what to feed it. It won't nurse at all." You have heard such appeals times without number. Whether the little stomach is in a condition to digest or not, the mother thinks her dear baby will starve if not fed regularly, hungry or otherwise.

To cure corpulency, Take Off the Pressure. This is our motto. This is Osteopathy. This is the universal remedy for all pathological conditions. If you desire to empty a lake, open the outlet and take off or stop the supply of water above.

The one thing in life, the most desirable to all people, is health, yet a word of advice that, if taken, will surely bring about that much-desired consummation, will continue to be rejected, and death, with its victims, will continue to slay its millions annually, carry the loved ones away; when, if due attention were had to the rest that brings peace, long life and happiness, we might not be called to mourn the loss of them so soon. The human family eats at least one-third more than it ought. This is the prime cause of most of our ills, premature death, the majority of our failures, the feeble-mindedness, sin, intemperance, violation of law, and all its evil consequences.

Crowding of the tired, worn-out stomach brings its sure reward—premature death, by robbing the very organs that prepare the life forces of their time to recuperate, so as to do perfect work. There are constitutions that bear this tax for long years, but the same physical body that bears such abuse finally succumbs thereto, whereas, if properly cared for, length of days



Arterial System.

might have been added to bless mankind. Rest the digestive organs, then, if you would be healthy.

The digestive organs are crowded with food, the whole system is taxed to eliminate the debris, and the mind is clouded, headache and other disturbances follow in the wake of this almost universal sin of the race. If it is not time to call a halt, I do not know why. Habit, like an armed foe, has made slaves of us all, and the wrecks that lie strewn along the highways point with warning to us to stop and consider consequences.

To cure obesity, and a large per cent. of sicknesses, rest the digestive organs—do without at least one meal a day, and breakfast is the preferable one to leave off. Eat a good, wholesome dinner and a light supper, and your stomach will have time to recuperate its overtaxed energies and digest food that is put into it, provided it be properly mixed with the salivary secretions in the mouth. Our whole alimentary apparatus is a marvelously complicated and delicate chemical laboratory, and if each department performs its proper function, harmony exists, but if either division is interfered with, its processes disturbed, harmony ceases, disease is the invariable result sooner or later.

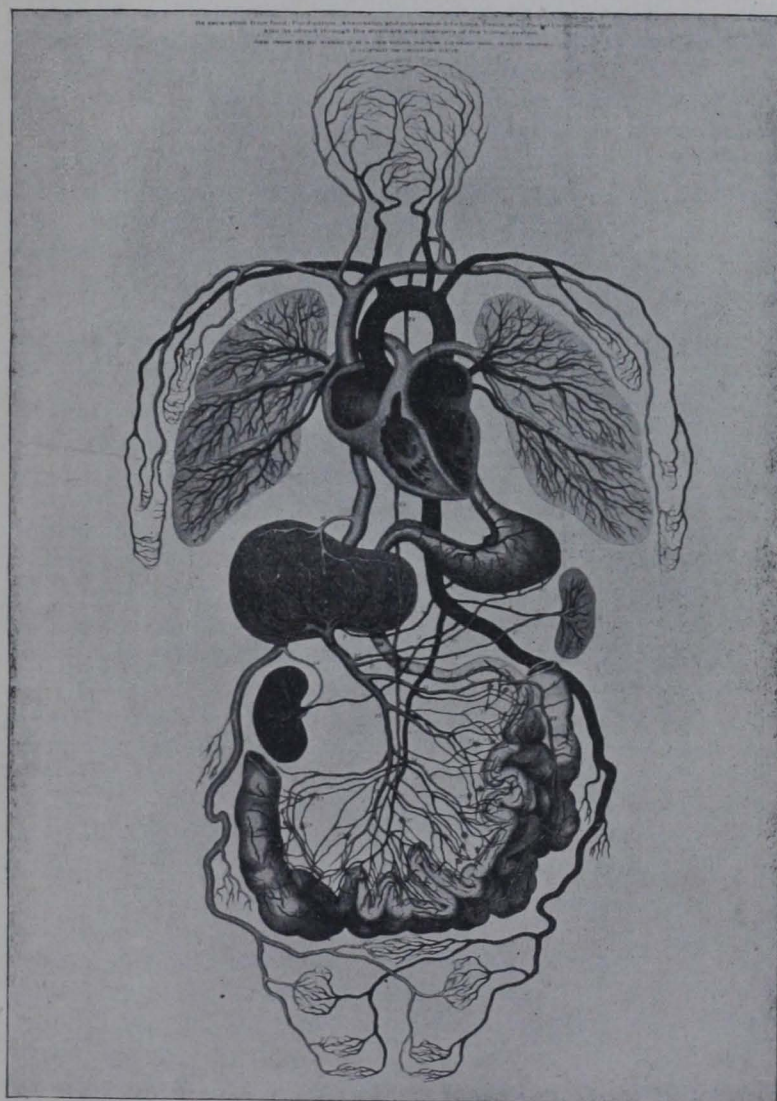
When we stop eating until a natural demand for food to supply the waste is manifest, preceded by a due amount of rest of the digestive organs, digestion will proceed without pain or distress, and the proper elements will be drawn from the food to make all of the ingredients that make up normal chyme, and go into the formation of blood, assisting in producing the succeeding chemical changes necessary to be assimilated, make up and constitute the secretions in the various parts of the body. It takes all of the ingredients, from the mouth to the end of the receptaculum chyli, to make up material for the new blood—to renew the life forces.

To treat obesity then, successfully, eat the proper food, at the proper time, giving the system rest; leave off carbo-hydrates and albuminoids, or beer, ale, or malt. We have seen obesity reduced thirty-five pounds, to a normal weight, by simply doing without the breakfast—one meal a day; heart disease cured, dyspepsia eradicated, headaches entirely removed, the bowels become perfectly regular, the torpid liver become natural, simply by giving the stomach rest. Do without your breakfast if you would be well.

The salivary glands should be duly exercised by the move-

ments of mastication, so as to furnish a sufficiency of secretion to thoroughly mix and moisten the food, so that when it reaches the stomach it is prepared for the next step in the process—the mixture with the gastric secretion, which is altogether a different secretion from that drawn from the salivary glands, being alkaline, whereas the gastric is an acid. The mixture of these secretions with the food takes place in the stomach, and the process of emulcification goes on here, making a solution and a mixture preparatory to the next division, which the food is conveyed into, through the pyloric end of the stomach by a peristalsis, due to contraction and relaxation of the muscular fibers of the walls of the stomach. Here, in the duodenum, the food is mixed with the secretions from the liver and the pancreas, and at once converted into chyme, and made ready to be absorbed or taken up into the lymphatic tubes that open from the mucous membrane into the walls of the small intestines, and conveyed into the receptaculum chyli, and by peristalsis conveyed on into the thoracic duct—a tube beginning about opposite the second lumbar vertebra, and about the size of a common goose quill, passing up through the aortic opening in the diaphragm; through the right crus, lying to the right side, and behind the aorta abdominis, lying between the aorta and the vena azigos major. Opposite the fourth dorsal vertebra it inclines to the left side and ascends behind the arch of the aorta on the left side of the oesophagus, and behind the first portion of the left subclavian artery, to the upper portion of the thorax. Opposite the seventh cervical vertebra it turns outward and then curves downward over the subclavian artery, and in front of the scalenus anticus muscle, so as to form an arch, and terminates in the left subclavian vein at its angle of junction with the left internal jugular vein.

Here we perceive the product of the food begins its mingling with the blood in the systemic circulation. This chyle and the return venous blood, containing the waste material, go back to the heart, entering the right auricle, passing into and out of the right ventricle into the lungs, distributed through the capillaries there, giving up its carbonic oxide and receiving oxygen, then returned to the left side of the heart, entering it through the left auricle, through which it passes on out into the aorta, and into the arterial trunks into every part of the body—the blood being the “life of man.” It now contains all of the elements from which the system is renewed.



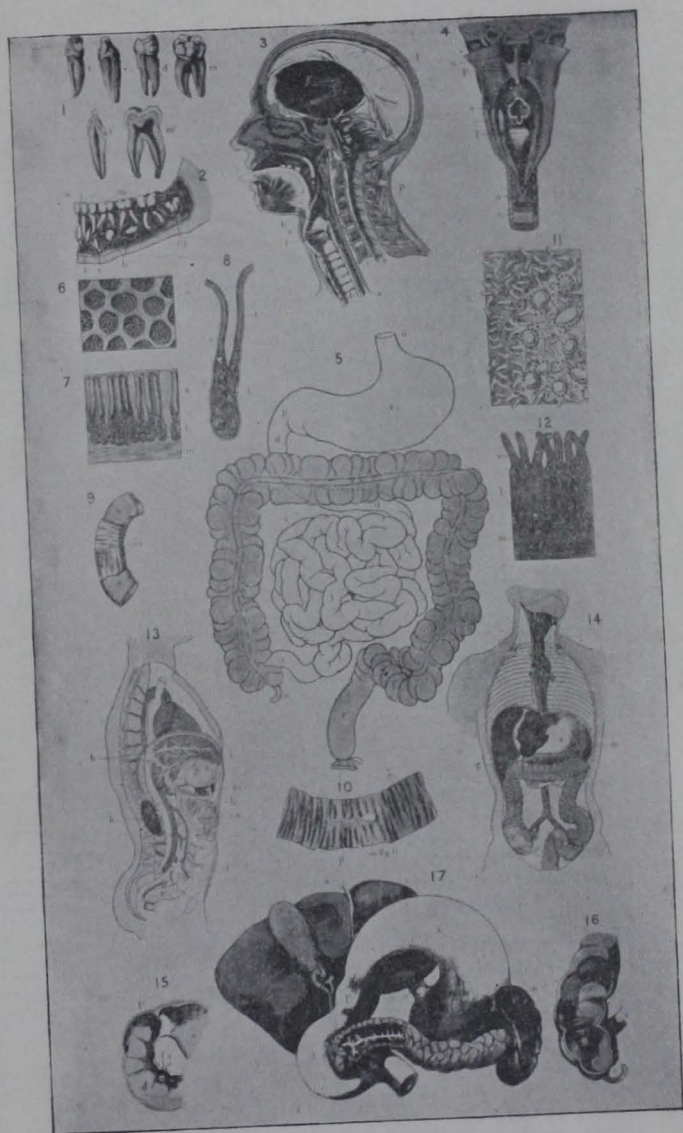
Systemic Circulation of the Blood – Veins and Arteries.

We have traced the food from the mouth through the alimentary apparatus, and watched the various stages of progress, until it has been formed into blood, and now watched its distribution as far as the ends of all of the smaller twigs of the arteries—into the capillaries. Here is the most interesting phase of our observations. The manner of renewing the organic portions of this body and the removal of the waste material claim our special attention at this point of our investigation and observation, for it is at this stage of the circulation of the fluids of the body, our greatest interest is demanded, for the physiologists have all seemed to leave the subject in the dark.

We shall hope to be pardoned for our seeming intrusion here, but we can not refrain from venturing a plausible theory regarding this subject, that, to many, will seem reasonable, if not true. It is taught by physiologists that in the capillaries blood corpuscles pass out through the walls and build up tissue. Taking a retrospect of the office of the sympathetic nervous system, we would have the reader understand that right here we see the most marvelous demonstrations of mind power, thought, wisdom, manifested more than elsewhere in the body. Sitting on its throne in the calvarium, sending its small tubes into every part of the body, countless millions in number; through these, mind is conveyed, and at the extreme terminals thereof, as the blood, containing its elements, passes on into and through the capillaries into the veins, this set of sympathetic filaments select and draw out from the blood, through the walls of these capillaries, this and that particular element needed in that part of the body, and the rest of the elements go on in the blood, through the capillary, into the veins beyond, to form the quantity unused, that makes up the waste material (the refuse) to be made over in the lungs. As this or that particular element is drawn out of the blood as it passes through the capillary, to supply the tissue that has survived the period of usefulness, the gaseous or fluid material, the new element drawn out, supplies the waste; the excess, the broken-down material, is moved on as a fluid or gas into the open mouths of the lymphatics, through which this waste is moved into the veins beyond the capillaries, through the sides of the veins (which are tubes similar to the veins). We recognize the unerring selection of the proper material in these parts of the body as going on all the time, with as much precision as the rising and setting of the sun. Now, suppose from any cause an

arrest of this process should occur, can we not see that chemical changes would occur in the parts, new compounds result, and perhaps poisonous elements formed, a diseased condition set in, destruction of the tissue ensue, and thus a nidus formed that, ere its removal, the whole course of nature would be interfered with. This, in brief, is what we are to regard as undue pressure. Hence our motto, "Take Off the Pressure," is apropos.

We hold that any obstruction to the flow of the fluids of the body, either to or from the heart, causes every pathological condition known to mankind; that removed, cures all diseases that flesh is heir to. This is a wonderful advance on old theories.



The Alimentary Tract—Digestive Apparatus.

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Hultman M.S.
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M.D.T.
John Lippard
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Sheffield