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OSTEOPATHY ILLUSTRATED.

A DRUGLESS SYSTEM OF HEALING.

BY A. P. DAVIS, M. D., D. O.,
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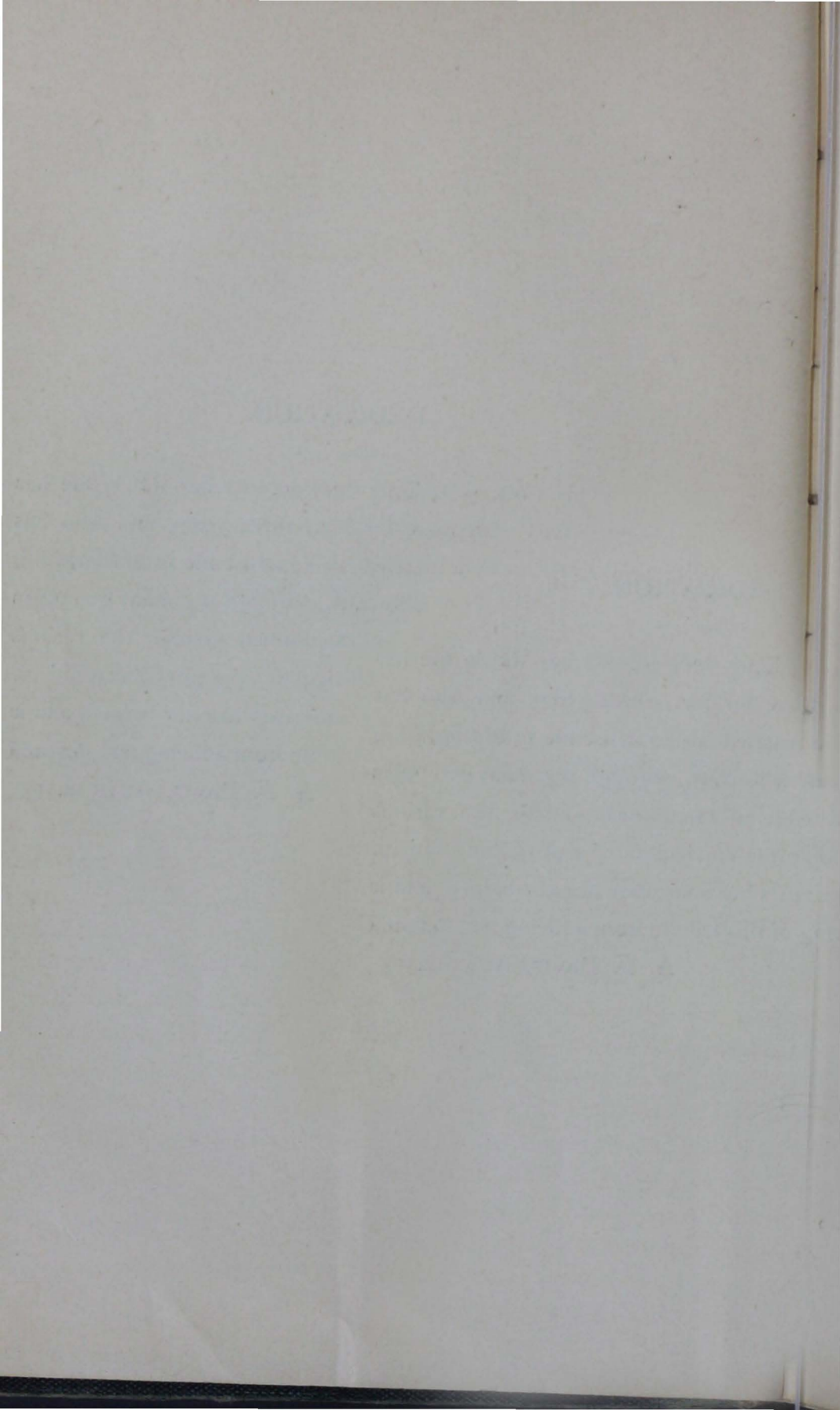
FRED. L. ROWE,
CINCINNATI, O.
1899.

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A. P. DAVIS, M.D., D.O.

DEDICATION.

This work is lovingly dedicated to her whose life has been linked with mine for forty-three years, and who has devoted her whole married life to assist me in ameliorating the sufferings of my fellowmen, through my many struggles to attain a knowledge of the human system, the various studies that make up the curriculum of a physician's quiver. Through all these years her constancy has not lagged, and is eminently deserving of this tribute from a loving and devoted husband.

A. P. DAVIS, AUTHOR.



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INTRODUCTION.

It is not so much a matter of fame on my part, nor the glory of popular praise, in presenting this book to the world as an individual production, as it is to present facts. Every man has more or less pride in himself, who amounts to anything as a leader of the people or who wishes to aspire to a promulgator of a great thought, and I hope to be pardoned for any seeming presumption in presenting this volume for consideration. No subject claims audience of so large a number of people as that which concerns their personal welfare, and this being of that nature—the physical welfare of the race—we hope that the principles laid down and elucidated herein will receive careful consideration, investigation, and after trial, the approval of every one interested in health. It would be presumptuous on the part of the author to claim perfection, but we have studied the principles involved most carefully, and hope that we have consummated much that will be invaluable to the reader, and be in some measure a means of showing to the world, in a clear, concise form, the peculiar marvelousness and untold benefits of this great science, so that it may indeed be a blessing to mankind.

Our only apology for offering this volume is that the subject has not been clearly presented to the public, nor to the profession in such a manner as to be understood. The sketches sent forth through journals have scarcely indexed the meaning of, nor the science in a manner that brought out

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anything more than ridicule and repugnance. This science deserves the closest scrutiny and the most searching investigation, for it is surely worthy, and will be the leading science of healing at no distant day. Our illustrations will be most interesting to the reader, in that they exhibit fully the application of the principle in detail so clearly that the science stands out to view in the clearest light possible, and at once attracts intense attention. Special pains have been taken to prepare this series of manipulations so as to be easily understood and used by all persons who carefully study the philosophy involved.

THOUGHTS FOR SPECIAL CONSIDERATION.

It is not the design of this work to embrace all other sciences and specialties, in order to make a show of wisdom—our sole object being to present the reasons for the application of this science, and to demonstrate its place among other means of healing. If the reader will carefully survey the premises, investigate the philosophy and note the results, a just estimate of the value of the science may be placed on it, and its proper place assigned for it.

Unobstructed circulation of fluids to and from the heart, in all parts of the body, and uniting the forces and removing the pressure, constitute the basic principles of this philosophy, and the means of promoting these ends is the only object of this book.

Disease, according to the common acceptance of the term, being only the product of impeded circulation, the desideratum in all of the manipulations, moves and adjustments shown, illustrated and explained in this work, will be conceded by the careful reader who desires to know. There is no secret, arcane abstruseness aimed at, but the practical

uses and results of the science to ameliorate suffering humanity, to set free what is and has been bound, "lo, these many years," not by word only, but through the means God has given us.

The field of surgery, gynecology, obstetrics and other departments of the healing art are not considered in detail, nor is it the object of this treatise to embrace, but the principles illustrated will be alike useful to the one as the other. When it is considered that *obstruction* causes a larger per cent. of pathological conditions than anything else, and all other things combined, the importance of the thought we have labored to impress on the mind of the reader, will be realized.

The various methods recommended and shown will be found adequate, properly applied, to afford much satisfaction, great relief, many cures thought to be beyond the power of known remedies to reach.

It is as much of an impossibility to send communications over electric wires without continuity of contact as it is to cure disease without freedom of communication of terminal end nerve footlets or freedom of the circulation of the fluids of the body; and the reason that Osteopathy shows up so *brilliantly*, is because it succeeds in taking off the pressure and permits vital fluids to move on. Co-ordination in the physical body is as essential as Faith in the spiritual body. We are not dealing in uncertainties, if we understand ourselves, nor do we need to conjecture results, for they follow with as much assurance as effect follows cause. This science, then, becomes a *necessity* in the curriculum of the *healing art*. Those who have had most experience with Osteopathy are the most ardently impressed in its favor. It wears favorably with acquaintance.

The author of this work is largely indebted to the many authors on Pathology for many ideas contained, and especial respects should be paid to Dr. Daniel E. Hughes, author of "Practice of Medicine"; Auvard, Ranney, Tyson, Buchanan, Pratt, and Kirke. It is not so much the matter of pathology that we had in view in writing this work, as to show when, where and how to apply Osteopathy with some science and intelligence. The illustrations presented in this work are sufficiently plain to be comprehended, and applied in the most of the pathological cases mentioned, successfully.

We sincerely commend this volume to those who desire to learn what Osteopathy is, and some of its capabilities and possibilities, as far as known to the present date.

That there will be improvement in its application, is not a question, but the philosophy seems to be fairly well demonstrated, even though automatically applied in many instances by persons whose attainments are meager, to say the least of them, to the astonishment of many a skilled scientist, proving its merits, though ignorantly applied.

We hope that those who become healers may study to fathom its profundity, and apply it satisfactorily, beneficially, and curatively to ameliorate suffering humanity.

Respectfully submitted,

THE AUTHOR.

BIOGRAPHICAL SKETCH.

Andrew P. Davis, M.D., D.O., the subject of this sketch, was born in Allegany County, New York, on the 10th day of March, A. D. 1835, of religious parents. The paternal side was of Scotch and Welsh descent and his maternal side of Irish extraction, very nearly the original, his grandparents being quite prominent in Revolutionary times.

He derived much of his energy and tenacity from the paternal side of the house, and his finer qualities from the maternal side. A most remarkable combination of character for versatility, embracing all of the qualities of the sturdy and the most refined. His career began amidst the most adverse environments, his parents having emigrated to Western Indiana when he was only a child, four years of age, and settled in the rural district of the State (Indiana), where during the next ten years his companionship was the older and younger brothers, the hills, forest, rivulets, rocks and rills. At the age of fourteen his father died, leaving him with but little of this world's goods; and with but a meager schooling and but little knowledge of books or things. Cast out among strangers, trained by an educated guardian, sent to school and college for three years, became a teacher of district schools, married at the age of twenty-one, began life amidst difficulties but seldom realized at the present day; teaching school winters and laboring on a farm during the summer and fall months, studying nights—he formed the habit of self-reliance, and had for his books the most meager, such authors as "Samuel Thompson's Life and Practice of Medicine," "Robinson Crusoe," "Pilgrim's Progress," Davies' Arithmetic, Kirkham's Grammar, and Olney's Geography and the Sunday-school Libraries of his county-seat. The first effort

to formulate a life of study for a purpose began in the year 1861, when politics raged so hotly as to culminate in a national revolution and freedom of the slave; he was taken into custodianship, professionally, by a learned gentleman, who drilled, trained and graduated him in the Regular School of medicine, and supervised his early practice for several years; but the inconsistencies of the Regular practice were too palpable for his discerning mind, and he investigated, studied, and graduated in the Homoeopathic School eleven years after his graduation in the Regular School. He also graduated in Ophthalmology and Otology, Orificial Surgery, and studied the Junod System of Hemaspasia; then Therapeutic Sarcogenomy, Mental Science, Christian Science, Hypnotism, and finally Osteopathy, mastering it and reducing it to a science, working out the most difficult problems in the healing art, consequent upon the freedom of the circulation of the fluids of the body. This science seems to be adequate to occupy his whole mind, and its marvelous, far-reaching philosophy furnishes him with sufficient depth of thought to satisfy his most ardent zeal, versatility, life. He is now one of the most thorough teachers and practitioners of this science in the country, and is perfectly adapted to unfolding the science in every respect.

Possessing that quality of brain that is calculated to search out the most minute details of the finer structures of things, he is just the man to bring out all of the relationships of this science to the art of healing and show the contrast of the various systems purporting to be remedial agencies for pathological conditions. Whatever he undertakes to investigate he thoroughly develops to perfection, making every part stand out in its true light, so that it may be known and read of all men. While it is a recognized fact that other minds claim the discovery of the principle upon which Osteopathy is founded, it is also a fact that until Dr. Davis took hold of the subject, Osteopathy was in its crudest state, meagerly known only within the narrow limits of a few counties, and had been

recognized by but few men of note; that, after he had fully investigated, adopted, and began to realize what was in it, and what a boon it might be to suffering humanity, he indorsed it, gave his influence thereto, recommended it to the leading men of the State in which its originator resided, and became the first teacher in the first Osteopathic School in the world, and aided in setting it on foot, and has not ceased to sound its praises and demonstrate its worth at all times and in all places, until now he is the head of the Quincy Osteopathic Institute (succeeded by Dr. E. L. Willis, May 1st, 1898), in the city of Quincy, Illinois, and students and patients are daily receiving the benefits of this marvelous and scientific method of curing disease without drugs—simply by the proper adjustment of the system to itself through a series of physical manipulations. The curriculum of studies essential to the comprehension of this science consists of Anatomy, Physiology and Pathology. Diseases are recognized as only the result of the interruption of the onward flow of the fluids of the body, in their various rounds to build up and tear down the various tissues in itself, and that when these tissues are normally built up and the waste material properly eliminated, health is the inevitable result. All of the deviations from a normal state may be, and are, restored by the proper adjustment through physical manipulations of the system to itself.

F. L. ROWE.

TABLE OF CONTENTS.

	PAGE
Introduction	V.
Biographical Sketch	IX.
Index to Plates	XIV.
Description of Plates	I.
Fundamental Principles of Osteopathy.....	38
The Philosophy of Application of these Principles.....	48
The Ultimate or Physiological Constituents of the Body....	51
The Warfare Among Doctors Still Exists.....	71
Can this Science Be Relied on in Emergencies?.....	75
What Is Osteopathic Treatment?.....	76
Mechanism of the Respiratory System.....	83
The Positive and the Negative Forces in the Human Body..	88
The Science as It Is at the Present Date.....	91
The Controlling Influences of Certain Localities.....	92
Misplaced Application of Osteopathy.....	94
An Intellectual Appreciation of the Science.....	96
Adaptability a Prerequisite to Success.....	99
The People Demand an Intelligent Reason for a Thing.....	101
The Formation of Material from the Food into Blood.....	102
The Elementary Constituents of the Human Body.....	109
The Absolute Essentiality of Tissue Elements in the Blood..	110
Heat and Cold	112
The Value of the Tissue Elements Considered.....	117
Do Not Confound these Elements with Medicines.....	119
Freedom of Circulation Essential.....	120
Muscular Contraction	126
Obstruction Produces Disease.....	127
Full, Deep Inspirations.....	131
Definitions—Disease, Pathology, Etiology, Histology, Symptomology, Diagnosis, Prognosis.....	133
The Importance of the Nervous System.....	135
The Vaso-Motor Nerve Centers.....	144
Nerve Centers	148
The Role the Spinal System Occupies in this Treatment....	149
The General Outline of Spinal Nerve Influence.....	151

	PAGE.
Nerve Force	156
The Nervous System as a Guide to Diagnosis	160
Considerations Extraordinary	164
The Order of the Spinal Nerves	168
Cervical and Dorsal Nerves	173
The Spinal Nerves	176
The Brachial Plexus	178
Nerves of the Upper Extremity	180
The Dorsal Nerves	183
The Lumbar and Sacral Nerves	184
Distribution of the Branches of the Lumbar Plexus	186
Distribution of the Branches of the Sacral Plexus	187
The Sympathetic Nervous System	188
Distribution of the Nerves of Leg and Foot	190
General and Special Treatments	191
Special Moves for Specific Results	195
General Treatment Necessary	197
Special Treatment	201
Various Movements in Different Pathological Conditions	205
Table for Convenient Treatment	207
Special Instructions as to Manipulations	207
Dislocation of Bones—Cause of	211
Examinations—Conditions to Be Observed	212
Dietetics—Regarding Food During Sickness	214
Suggestive Therapeutics	217
Orificial Surgery—Its Philosophy	218
Reducing Dislocations	227
Fevers and Their Treatment	237
Acute General Diseases	287
Blood, Diseases of the	333
Respiratory System, Diseases of the	346
Physical Diagnosis of Diseases	346
Nasal Passages, Diseases of the	366
Mouth, Diseases of the	373
Pharynx, Diseases of the	374
Bronchial Tubes, Diseases of the	396
Lungs, Diseases of the	423
Pleura, Diseases of the	452

	PAGE.
Circulatory System, Diseases of the.....	461
Heart, Methods of Physical Examination of the.....	461
Heart, Diagnosis of Valvular Diseases of the.....	483
Nervous System, Diseases of the.....	506
Stomach, Diseases of the.....	642
Liver, Diseases of the.....	654
Biliary Passages, Diseases of the.....	664
Kidneys, Diseases of the.....	667
The Urine and Its Tests.....	668
Peritoneum, Diseases of the.....	701
Intestinal Canal, Diseases of the.....	707
Skin, Diseases of the.....	747
Eye Diseases, Application of Osteopathy to.....	825
Osteopathy in Obstetric Practice.....	833
Obesity	837
Index to Diseases and Their Treatment.....	849

INDEX TO PLATES.

Plate I.a.—First of General Treatment.....	41
Plate I.b.—Continuation of Plate I.a.....	49
Plate II.—Treatment of Side of Neck Muscles.....	57
Plate III.—Stretching of Neck Muscles.....	65
Plate IV.—Vibration of Neck Muscles, Patient Recumbent..	73
Plate V.—Angle of Jaw Movement.....	81
Plate VI.a.—Treatment of the Ears.....	89
Plate VI.b.—Ear Extension Backward.....	97
Plate VII.—Vibration of Temples and Forehead.....	105
Plate VIII.—Stimulation of Supraorbital Nerves.....	113
Plate IX.a.—Vibration of Sides of Nares.....	121
Plate IX.b.—Stimulation of Lacus Lachrymales.....	129
Plate X.—Vibration of Facial Muscles.....	137
Plate XI.—The Divulsion of the Nares.....	145
Plate XII.—Manipulation of Muscles of the Neck.....	153
Plate XIII.—Raising of the Clavicles, on Table.....	161
Plate XIV.a.—Arm Movement, Patient on Table.....	171
Plate XIV.b.—Continued Arm Movement.....	199
Plate XV.—Treatment of Back of the Neck.....	209

	PAGE.
Plate XVI.—The Flux and Diarrhea—Movement for.....	219
Plate XVII.—Showing Flexion of Lower Limb.....	229
Plate XVIII.—Manipulation of Sciatic Nerve.....	239
Plate XIX.—Vibratory Movement of Knee and Hip Joint..	249
Plate XX.—Showing Adduction of Thigh.....	259
Plate XXI.—Conclusion of Movement Shown on Plate XX.	269
Plate XXII.—Showing Abduction of the Thigh.....	279
Plate XXIII.—Conclusion of Abduction of the Thigh.....	289
Plate XXIV.—The Method of Treating the Saphenous Vein.	299
Plate XXV.—The Manipulation of the Adductors.....	309
Plate XXVI.—Treating Fibula and Leg Muscles.....	319
Plate XXVII.—Stretching Muscles of Back of Leg.....	329
Plate XXVIII.—Stretching Tendo Achilles.....	339
Plate XXIX.—Treatment of Outside of the Thigh.....	349
Plate XXX.—Expansion of Chest by Two Persons.....	359
Plate XXXI.—Back and Shoulder Treatment.....	369
Plate XXXII.—Manner of Expanding Diaphragm.....	379
Plate XXXIII.—Showing Manner of Liver Treatment.....	389
Plate XXXIV.—Manipulation of Bowels for Constipation..	399
Plate XXXV.—Showing the Percussion of Bowels.....	409
Plate XXXVI.—Showing Vibratory Movement of Viscera..	419
Plate XXXVII.—Manner of Treating the Soft Palate.....	429
Plate XXXVIII.—Dorsum, Leg-Extension Treatment....	439
Plate XXXIX.—Dorsum Treatment of Kidneys.....	449
Plate XL.—Scapula, Dorsum and Shoulder Treatment.....	459
Plate XLI.—Spinal Concussion, Knuckle Treatment.....	469
Plate XLII.—Liver, Chest and Side Treatment.....	479
Plate XLIII.—Manipulation of Spine, Dorsal Treatment...	489
Plate XLIV.—Arm Extension, Upright Treatment.....	499
Plate XLV.—Method of Stimulating Vaso-motor Nerves..	509
Plate XLVI.—Extensio-rotary Neck Treatment.....	519
Plate XLVII.—Manipulating Muscles of Back of Neck....	529
Plate XLVIII.—Chin-Occipital-Neck Extension.....	539
Plate XLIX.—Vibratory Movements, Neck and Back.....	549
Plate L.—Showing Manipulations of Neck and Throat.....	559
Plate LI.—Shoulder and Arm Raising.....	569
Plate LII.—Showing How to Strain Elbow Joint.....	579
Plate LIII.—Raising Clavicle, Patient Sitting Up.....	589

	PAGE.
Plate L.IV.—Raising Chest Muscles and Treating Spine....	599
Plate L.V.—Knee-Chest Expansion Process.....	609
Plate L.VI.—Side of Neck and Shoulder Treatment.....	619
Plate L.VII.—To Raise Clavicle, Arm Leverage.....	629
Plate L.VIII.—Manipulation of Goiter.....	639
Plate L.IX.—Throat Treatment for Diphtheria, etc.....	649
Plate L.X.—Chest and Spinal Cord Extension.....	659
Plate L.XI.—Chest Expansion and Spinal Stimuli.....	669
Plate L.XII.—To Stretch Chest Muscles and Cord.....	679
Plate L.XIII.a.—Chest Expansion and Back Treatment....	689
Plate L.XIII.b.—Different Position of Plate L.XIII.a.....	699
Plate L.XIV.—Treating Back, Lying on Couch.....	709
Plate L.XV.—Showing Plate L.XIV. Continued.....	719
Plate L.XVI.—Showing How to Extend Pectoral Muscle...	729
Plate L.XVII.—Treating Shoulder and Side Muscles.....	739
Plate L.XVIII.—Spine, Liver and Stomach Treatment....	749
Plate L.XIX.—Manipulation of Locomotor Ataxia.....	759
Plate L.XX.—Showing Treatment for Eye Troubles.....	769
Plate L.XXI.—Flexing Limb on Thigh and Abdomen....	779
Plate L.XXII.—Showing Various Dorsal Treatments.....	789
The Cervical Plexus.....	177
The Brachial Plexus.....	179
The Brachial Plexus and Nerves of the Upper Extremity...	181
Distribution of Branches of the Lumbar and Sacral Plexuses	185
Cerebro-Spinal and Sympathetic Nervous Systems.....	189
Skeleton with Capsular Ligaments.....	795
The Lymphatic System.....	801
Action of the Muscular System.....	807
Muscular System (Front View).....	811
General Distribution of the Nervous System.....	815
The Distribution of Nerves.....	819
The Sympathetic Nerve	823
Sympathetic Nerve Centers.....	827
Vaso-motor Filaments and Solar Plexus.....	831
Nerve Plexuses—Deeper Structure and Plexuses.....	835
The Arterial System.....	839
Systemic Circulation of the Blood—Veins and Arteries....	843
The Alimentary Tract—Digestive Apparatus.....	847

DESCRIPTION OF PLATES.

PLATES NO. I.*a* AND I.*b*.

Place the patient on the table, or bed, on the back, all the muscles limp as possible, neck bare of clothing, ties, etc. Put both hands, fingers touching at the spines of vertebrae, hands at the side of the neck, head of patient well up to the head of table; raise the neck with both hands, letting the fore-fingers pull hardest, so that the head will incline to droop somewhat, pressing the person against the top of the head of patient, and when the neck is well bent and stretched upwards, move backward from head of the patient yourself, raising the fingers next to the occiput so as to level the head, and let it down on the table. This move should be done two or more times. The object of this move is to stretch the neck muscles, stimulate the general circulation, and thereby start dormant conditions of all of the fluids in that region, arouse the vasomotor nerves, regulating the caliber of all of the blood vessels in the body; and determines normal or abnormal contour of the vertebrae themselves, the softness or rigidity of the various muscles of the neck, condition of the venous and lymphatic vessels, glands, etc.

PLATE NO. II.

Place the *heel* of each hand on each side of the head of the patient, on the mastoid portion of it, behind the ears, putting the fingers as near together as may be; drop the fingers of one hand to the junction of the occiput and neck; now roll the head over on that hand by pressing with the heel of the other hand, pressing at the same time with the palm of the fingers against the side of the neck, inclining to pull the finger ends upward, and enforcing that move by the pressure of the palm

of the other hand, or rather the heel of the hand against the side of the head, back of the ear (as seen in the plate). Continue these moves several times, moving the fingers on the sides of the neck up and down over the muscles, catching fingers at a new point on the neck each turn of the head, with the fingers of the hand underneath the side of head and the neck. The fingers of the hand that rolls the head over on the other hand need not be pressing on the neck as the heel of said hand rolls the head over on the opposite hand, but may be lifted up therefrom in an easy, graceful curve, but drawn down when pressure is to be made on the neck of that side. The object of this move, or these moves, is to free the circulation of the blood and other fluids in all of the muscles of the neck, removing any and all rigidity, contraction of muscles, etc.

PLATE NO. III.

Place the hand under the neck, fingers ending near mastoid process of occipital on opposite side, other hand under chin of patient; pull easily, firmly and steadily in a direct line lengthwise until you perceive that the body is moved enough to move the feet of the patient, and, holding the hands and body taut, at the same time turning the head on toward finger ends of hand on back of head, pressing moderately with finger ends, and before slackening hold turn head till straight with body; then let go. Change the hands and repeat same process on opposite side of head. This, you perceive, stretches the neck muscles, and cervical vertebrae as well, thoroughly.

The stretching of the *spine* is done as follows: An assistant takes hold of the feet, and the operator takes hold of the patient under, or by the arms or wrists, and gentle and steady extension is made. If patient lies on face, a second assistant may be of service in adjusting spine for any deviations found, such as curvature, contracted muscles along spine, atrophied, shrunken or affected muscular structure.

This treatment is greatly beneficial in all spinal affections, in a large variety of pains, lameness, rheumatic or neuralgic, sciatica, lumbago, etc. It relieves spinal congestion in cerebro-spinal meningitis. The stretching of the *spinal cord* will be advisable for a great many affections, and properly performed, frequently produces the most marvelous results imaginable. Lameness that has existed for years frequently yields at once. Remember that *the important thing to do* is to *take off the pressure*. Freedom's holy influence blesses mankind physically, as well as morally, *spiritually*. "*Freedom!*"

PLATE IV.

With the tips of the fingers of both hands placed near the cervical vertebrae, hands at the sides of the neck, pressing gently against the neck with ends of the fingers, move the hands rapidly in such a way as to move the muscles of the side and back of the neck upwards, downwards and sidewise, vibrating, for several successive moves.

PLATE V.

Place the fingers (one or more) at the angle of the jaw; have the patient open the mouth widely; at the instant the mouth is opened draw the fingers up firmly to the side of the head, back of the ear, stretching the skin and adjacent and subjacent tissues at the same time; and as the patient closes the mouth, loosen the pressure of the fingers. Do this two or three times, being careful not to produce pain by holding the fingers in position as the jaw is closing.

PLATES VI.a AND VI.b.

The ear movement is made as follows: Place the end of the forefinger palmar surface on the *Tragus* (the little protuberance just below and in front of the meatus-auditorius externus), the ear being held between first and second fingers; move them quite vigorously up and down several times, then press them backwards with a steady but rather sudden jerk, and revolve the integument with the whole ear several times.

PLATE VII.

Place the fingers, the pulps of them, on the temples, and, with an up and down or rotary movement, vibrate in and over and around in all directions on the temples for several quick, successive movements, and at the same time dropping the thumbs on the forehead and vibrating them over every part of it, upwards and downwards.

PLATE VIII.

This movement is made by placing the palmer portion of the thumbs on either side of the nose, pulling them upwards and outwards over the eyebrows across the supraorbital notch two or three times, with moderate pressure.

PLATE IX.*a*

Put the thumb on one side of the nose, fingers on other side, compress slightly, and move them up and down the length of nose, pulling skin at the same time, moving quite rapidly for several successive moves. Then—

PLATE IX.*b*

Put thumb and index finger of either hand on papillae lachrymale at inner canthus of eyes, squeeze gently, then, finger and thumb in position, gently push them down to the sides of the nose with a sudden push, being careful to hold them together so as not to spread out and run them into the eyes. Two or three vigorous motions should be made.

PLATE X.

This move is made by placing the thumbs on either side of the alae of the nose, and using pressure on the malar bone, letting the thumbs slide downwards and outwards on the under edge of the malar processes of the superior maxillary bones. Repeat the movements two or more times.

PLATE XI.

Introduce the forefinger of each hand into the nostrils and place the thumbs on outside; press them together, then pull nostrils outward (straight), stretching moderately so as to dilate the sphincter alae. This is one of the treatments for catarrh.

PLATE XII.

The movements of the muscles of the neck are shown in this plate, and being important, it is essential that they be well understood. This movement, or the movements, are made by standing at the side of the patient, the operator placing the hand on the forehead of the patient, the other hand on the side of the neck, fingers close to the cervical vertebrae, but not beyond the vertebrae of the side of the neck the hand is placed, the fingers forming a gentle curve, and the tips pressing evenly and vertically on neck; and now, with a rolling motion of the head, done by the use of the hand of the operator, on forehead, pushing forehead from him, and at the same time pulling the other hand toward himself, the operator being careful not to let the fingers slip over the skin, but pulling the skin and deeper structures with the fingers, using sufficient pressure to do so, and yet not hard enough to be painful or uncomfortable to the patient. The hand should course up and down on the neck, being particular to manipulate all of the side of the neck with that sort of a motion; then change sides of table; **get around on the other side and go through** the same process as on side left. The moves should cover every portion of the neck, and should be thoroughly done so as to reduce all of the rigidity that exists in the neck muscles at one sitting, if possible.

PLATE XIII.

THE RAISING OF THE CLAVICLES.

Standing at the side of the patient, place the arm of patient at the side of the body, flexed at elbow, catch hold of

arm at elbow with hand, right arm of patient with right arm of operator, push the arm upwards gently. This pushes the clavicle upwards, and away from the first rib somewhat; now place the fingers of the other hand between the neck and clavicle, gently pull it outwards and at the same time raise the arm up to a level with the shoulder, keeping it on the level with the body, sliding it up on the table to that height; then let go with both hands, as you have the clavicle sufficiently raised for one time. This is the manner of raising the clavicle while patient is lying on the back of the operating table.

PLATES XIV.*a* AND XIV.*b*.

THE MOVEMENT OF THE ARM WHILE THE PATIENT LIES ON THE TABLE AND ON THE SIDE.

Standing at the side of the table, patient lying with face toward operator, relaxing as much as possible every muscle in the body, the patient is taken hold of by the operator, by the wrist, the fleshy part of the wrist next to the palmer surface of the operator, the forefinger extending between the thumb and forefinger of the patient, which gives secure and easy control of the movements to be made by the operator.

The hand of the operator now should be placed with the fingers somewhat gently curved, the pulps of the fingers near the spinous processes of the dorsal region, beginning midway between scapulae and on the side of spines next to operator, keeping patient on the side, leaning a little from the operator, close to edge of the operating table, and the operation should be at the side of the table, pretty nearly opposite the patient's shoulders, with foot extended beyond the head of the table, and the other foot placed so as to brace the body firmly and comfortably. Now extend the arm upward loosely to the side of the head, trying its natural position to the side of the head without straining, having hold of hand or hand and wrist as aforementioned, and the hand as before stated near spines of dorsal vertebrae; pressing gently two moves are made at once, simultaneously—the arm is extended, and at the

same moment there is sudden pressure made in the back, then the hand on the back should be firmly held in place while the patient's elbow is bent, flexed, upon itself, and suddenly brought back, with the hand closed around the wrist, to the side, over the arm of the operator (see Plate XIV.b) with a sudden movement. This sort of a movement is to be repeated a number of times; the operator moving the fingers down the side of the dorsal vertebrae, an inch or two at a time, so as to cover all the space in the different moves as far down the back as the tenth or twelfth dorsal vertebra. This may be repeated two or three times. This should be done on both sides the same way. This constitutes all of the dorsal treatment from the arm movement. The reader will not confound this movement with other dorsal treatments, remembering that this is the arm movement on the table for the back treatment. This move is an important one, and should be thoroughly understood, for upon the right kind of execution of it depends important results. These movements will be often referred to in the body of this work.

PLATE XV.

NECK MOVEMENT.

Patient lying on the back, the operator places his hand under neck, finger ends on opposite side of cervical vertebrae, pressing gently on muscular structure, and holding fingers in that position, with other hand on the forehead of the patient, rotates it from him, toward ends of fingers of hand under neck, thus pushing muscles away from their moorings, as it were, continuing this process from base of skull clear down the cervical vertebrae to the shoulders, or first dorsal vertebra. This is to be done on both sides of the neck, changing hands, of course. Notice position in this plate.

PLATE XVI.

FOR PAINS IN THE BACK, DIARRHOEA, ETC.

The patient being seated on a stool, the operator, seated behind on another stool, places hands under arms of patient

in such a manner as to include the shoulders, and placing the knees on either side of the spinous processes, gently draws the shoulders backward, and rolls the body of patient either way, using his knees as pivotal points against sides of spines, in the lumbar region, gradually pulling body upward as the body of operator is inclined backward. This stimulates the nervous system in that region and stretches the lumbar muscles, takes off the pressure, and relieves distress. This move may be utilized in the treatment of diarrhoea, flux, kidney troubles, by placing the knees in the proper position on the sides of vertebrae, in lower dorsal and lumbar region. This will be fully explained elsewhere in this book.

PLATES XVII. AND XVIII.

THE MANIPULATION OF THE HIP JOINT.

The patient lying on the back, the operator takes hold of the ankle, flexes the leg, presses it against or toward the abdomen, rotates it to ascertain whether the articulation is normal, adducting and abducting it as well as flexing and extending it. Then hold the leg at the knee in either one of the methods desired, flex the thigh up on or toward the abdomen, placing the fingers of the other hand just above the sacroiliac junction, pressing firmly with the ends of the fingers, and rotate the knee outward, downward and backward, repeating this process several times, bringing the fingers down a line half way between the ischium and the great trochanter, following the course of the great sciatic nerve as nearly as possible. The pressure may be modified according to effect desired. The various methods of holding the leg may be seen in the plates. The various methods of reducing luxations of the hip joint, described in books on the science of surgery, are familiar to surgeons, and, being duly explained in this book, need not be mentioned here. But the adduction and abduction are frequently used in the various muscular contractures in the hips and thighs which cause pain, rheumatism and kindred affections, such as neuralgia,

varicose veins, ulcers, etc., that will not down of their own accord, but will recover if the proper manipulations of the hip joint are made. We have other movements of the hips that demand our special attention.

PLATE XIX.

The patient lying on the back, the operator should take hold of the ankle, placing the other hand below the knee; flex the leg upon the thigh and press the thigh well toward the abdomen; raise the foot a little, and press the thigh further toward the abdomen, and while thus taut, hold it quite firmly with the hand just below the knee, and with the hand holding the ankle move the foot from the other leg, describing about an eighth of a circle, moving it backward and forward a few times; this vibrates the hip and knee joints.

PLATE XX.

With the hand holding the ankle, and the other one holding the leg below the knee joint, and the leg flexed on the thigh, and the thigh on the abdomen, and held there firmly, pass the hand from below the knee above the knee, as in Plate XVII., and gently push the knee toward its fellow over the other thigh, at the same time bringing the ankle outward, and as the leg is brought to a straight line letting the hand above the knee come down on it as it comes to a level with the other limb. This last move should be made in a quick and rotary manner, coming down suddenly with the leg on the table.

PLATE XXI.

This plate is the finishing of Plate XX. This manipulation should be gone through with two or three times each treatment.

PLATE XXII.

The stretching of the adductor muscles is done in the following manner: Take hold of the ankle with one hand, flex the leg upon the thigh, turn knee outward, foot at right

angles with other leg, knee pressed down with other hand, the hand above the knee, pressing firmly and steadily, continuously, while the hand holding the ankle draws the leg down with a quick jerk to a straight line, and the forefingers of the other hand pressing against the side of the leg thus extended so as to suddenly go against the side of the leg as it stops, with a sudden stop. This gently jerks the hip joint, as well as the knee joint, with a slight shock.

PLATE XXIII.

This plate shows the conclusion of Plate XXII. very perfectly, with the hand beside the leg, and just above the knee.

PLATE XXIV.

VARICOSE VEINS. VARICOSE ULCER TREATMENT.

Place patient on the back, on operating table, take hold of the leg just below the knee, flex the leg on the thigh, and with the other hand take hold of the thigh about two inches below the bend of the hip joint, fingers about the middle of the front of thigh, fingers forming a gentle curve, gently grasping the muscular structure; hold firmly and at the same time flex the thigh more against the abdomen, directing the knee toward the opposite shoulder of the patient in a slightly outward circular rotary movement, and at the same instant squeeze the fingers down on and inclosing the front part of thigh and pulling the elbow slightly backward and the wrist with an outward, backward, circular move, repeating these moves several times. This is for the purpose of freeing the veins in that region, especially the saphenous, which empties the blood from the deeper veins of the thigh into the femoral vein. The closure of this vein (saphenous) causes that condition called varicose veins of the leg.

PLATE XXV.

VARICOSE VEIN TREATMENT CONTINUED.

Letting the foot rest on the table, knee at right angle,

patient on the back, take hold of the side of knee with one hand, the other hand with fingers slightly curved around on and under inside of the muscles low down on thigh, pull the ends of fingers against the muscles and at the same time push the leg and knee inward toward other leg, carefully moving all the muscles of the inside of the thigh as far up as the adductor brevis, and then the move as shown in Plate XXIV. may be repeated in the treatment. This is *the* most important movement in the treatment for varicose veins, for stoppage of the blood in the deeper veins and the saphenous vein means trouble below in leg.

PLATE XXVI.

A FURTHER TREATMENT OF THE LIMB TO FREE THE VENOUS CIRCULATION, WARM THE FEET AND REMOVE OBSTRUCTIONS TO RETURN CIRCULATION.

The patient lying on the back, catch hold of the ankle, other hand placing thumb resting on tibia about the insertion of quadriceps extensor muscle, fingers of the hand under head and back of fibula, grasping that bone, using some compression; flex the leg on the thigh several times, bring considerable pressure to bear each time, and lower the fingers into the posterior peroneal space, using the leg as a lever to squeeze the muscular tissue and deeper structures in that region, extending and flexing the leg repeatedly. This is an excellent move to aid the return circulation of the fluids.

PLATE XXVII.

THE METHOD USED TO WARM THE FEET.

The patient lying on the back, take hold of the ankle with one hand, place the other hand above the knee on the lower end of thigh, raise the leg with hand holding ankle, press firmly with other hand above knee, stretching all of the back muscles of the leg. Let the knee bend a little, and bring the pressure against the thigh with other hand suddenly, though gently, several times, and the feet warm up as if by magic. A still better way to increase the circulation of the

blood in the leg and foot is to place the leg on the shoulder, lock both hands around the thigh just above the knee, moving up so as to let the leg flex at the knee, and spring the hands gently towards operator, bringing the leg straight with a sudden jerk—not strong, but easily, as prudence may dictate in each given case. This move may be made several times at one sitting, and no treatment will bring better results for cold feet. It will be referred to frequently for various other affections.

PLATE XXVIII.

This move should not be ignored, for it has its uses, and is frequently needed. The operator should take hold of the tendo achilles with one hand, holding it in such a manner as that the ankle may be firmly fixed, catching hold of the foot with the other hand, more nearly or around the toes, placing his shoulder or chest against the inner side of the forearm to steady his moves; now gently push the toes and metatarsal bones toward the front part of the tibia, pulling firmly in heel, counterbalancing the pressure made by the other hand. This stretches the muscular fibers of the back of the leg and lengthens them, equalizing the muscular strength of all the muscles of the leg. While the hands are thus holding the foot, rotation may be made to adjust any displacements of bones existing in the foot or ankle.

PLATE XXIX.

OUTSIDE OF LEG AND THIGH TREATMENT.

Place the patient on the back, flex the leg opposite, take hold of the knee, inside of opposite side of patient (to operator), and pressing knee outward, pulling inward with hand holding muscles of thigh, following course of sciatic nerve—that is, half way between the ischium and the great trochanter, pulling the muscles quite firmly, going over the parts two or more times. This treatment not only frees the muscular tissue on the outside of the thigh, but stretches the muscles on the inside of thigh, and in cases of sciatica or rheu-

matism, myalgia or diseases resulting from contracted muscles and sluggish circulation in that part of the body, is what should be done.

PLATE XXX.

FOR THE EXPANSION OF THE CHEST, RELIEVING MANY AFFECTIONS OF THE VISCERA IN CHEST.

The patient lying on the back, two persons, one on each side of table, take hold of the wrist of patient, with the other hands placed near the sides of spinous processes, pressing firmly, beginning about the first dorsal vertebrae (each operator on his own side of the body next to him), with the arm of patient stretched strongly upwards and outward, as well as backwards and downwards, using the arms as levers and the ends of fingers as fulcrums, and at the same time having the patient inhale deeply; the arms are returned to the sides of patient with a sudden push and down on table to side of patient. This process should be repeated, moving the hand of operator down spine an inch or two each time the operation is repeated, going down as low as the tenth dorsal vertebra. The angles may vary from a right angle to a vertical, pulling up to the side of the head. If there is no assistant, one operator may treat one side at a time. This is a most excellent way to expend the chest, and the patient invariably feels better. Care should be exercised in all the moves made, and due regard to the comfort of the patient. The various manipulations should be made with the view to benefit, and not to exhibit skill simply for the sake of praise as a mechanic, but for the good of the one operated upon. Disgrace always follows an awkward manipulator; justly, too.

PLATE XXXI.

This plate represents the arm and scapular movement, and comes in the general treatment, and by it the scapula is moved, raised from its moorings, and the pectoral muscles, deltoid, coraco-brachialis, teres major and minor, latissimus dorsi, trapezius, supra- and sub-scapular muscles, stretching

muscular fiber and aiding in promoting free circulation of the blood and other fluids in muscles and tissue involved in them. The patient lying on the side, the operator takes hold of the elbow with one hand, and puts the end of his fingers of the other hand at the upper and posterior border of the scapula, pushes the elbow backward, and edging the fingers of the other hand under the edge of the scapula, moving fingers downward at each move of the elbow backwards, until lower edge of scapula is reached.

PLATE XXXII.

STRETCHING THE DIAPHRAGM.

Place the patient on the back on a table, hands down to the sides, limp, relaxed; the operator, standing at the head of the patient, reaches arms down to the lower edge of the chest, in front and on either side of sternum, placing fingers of both hands at the junction of ribs and abdomen, as if to take hold of ribs, and while holding there require the patient to take a deep inspiration, expanding and drawing up the chest as well as the abdominal muscles; then have patient let go—that is, cease to hold—suddenly (this relaxes all of the muscles made taut by the inhalation), and just at that instant put the ends of the fingers under lower edge of ribs and pull steadily upwards and outwards, using moderate strength. This surely does the work effectually. It is a means of overcoming much of the constriction around the waist caused by heavy skirts in females, and tight lacing of former years (of course, we have no tight lacing now!), and freeing the lower tension and constriction caused by contracted abdominal muscles.

PLATE XXXIII.

TREATMENT OF THE LIVER.

The patient should be in a recumbent position, lying on the back, a little inclined to the left side, the operator on the left side of patient, right hand with fingers somewhat curved, ends placed on right side of spinous processes between the

sixth and the tenth dorsal vertebra, with left hand (the heel of it) or the ends of fingers placed on abdomen at or under edge of the ribs on right side of patient, and while pulling with the right hand, he presses ends of fingers of left hand against liver, circling the entire edge of that side of the body, having regard to the susceptibility of the patient as regards pressure. The kneading of the liver should be done gently, but thoroughly.

PLATE XXXIV.

TREATMENT FOR CONSTIPATION.

After the liver has been treated as directed in Plate XXXIII., while the right hand is in position as shown in that plate, and the patient on the back, let the operator place the fingers of the left hand on the left side of the abdomen, down in the region of the sigmoid flexure, pressing gently with the fingers, and at the same time pull gently with the right hand against the right side in the region of the liver, moving the fingers of the left hand upwards, along the course of the descending colon, pressing at short intervals as the other hand is drawing against the side and liver.

PLATE XXXV.

This plate shows the manner of percussion of the abdomen with the finger ends all gathered in a bunch, each hand. The object of this treatment is to arouse peristalsis of the intestines; and it often does it while patient is receiving it to that of desire to empty the bowels at once. The patient lying on the back, abdominal muscles relaxed, begin with one hand at the iliocaecal valve region of the abdomen, begin the tapping and alternate the taps with the ends of the fingers, up, ascending colon to the hepatic flexure, then across abdomen to splenic flexure, thence down descending colon to sigmoid flexure. Repeat this process the same way several times, not tapping heavily, and your efforts will be crowned with satisfactory success for constipation; but the other methods used for constipation should not be neglected, remembering all the

time that the hepatic secretion, called bile, is an irritant that stimulates the mucous membrane of the intestinal tract, and is set in motion and action through the splanchnic nervous system. The next number of our plates represent another step in the manipulation of the abdomen that is very efficacious in relieving constipation, peristalsis, etc.

PLATE XXXVI.

The patient lying on the back, the operator places one hand, spread out and covering as much of the abdomen as one hand will, placing the other hand on his own, over abdomen of patient, using gentle pressure rotates from left to right slowly and firmly for several moments, then disengages his hands and goes through a process of kneading for a little time; then repeat the rotary process and the percussing (tapping) process. These measures should be applied at least every other day to insure satisfactory results in cases of chronic constipation. There are other manipulations sometimes necessary in the cure of constipation that will receive attention at the proper place in this book.

PLATE XXXVII.

THROAT TREATMENT FOR CATARRH.

The patient, either lying on the back or sitting up on a chair or stool, head inclined backward, mouth wide open, the finger of the operator is put into the mouth just behind the last upper molar tooth, palm of finger looking forward; begins by gentle pressure at that place, and follows posterior border of soft palate across to opposite side, and back to place of beginning, not pressing too hard, only moderately. This stimulates the palatine nerve filaments and aids in removing venous stasis, the direct cause of the condition resulting therefrom, called catarrh. This should be done three times a week, and should be the finishing-up treatment each time the general treatment is given for catarrh. Care should be exercised that bruising be avoided, as the palate is fragile. The

finger should be thoroughly cleansed, with due regard to hygienic results, and in fastidious patients the cleansing will be a matter of intense consideration.

PLATE XXXVIII.

DORSUM TREATMENT.

The patient lying on the table or mattress, face down, the operator takes hold of the patient's foot, opposite the side he is on, places the heel of one hand about the middle of the back, on opposite side of spinous process, pressing firmly downward and outward, raising the foot, drawing the whole limb upwards and in a gentle curve, springing the back a little beyond the comfort of the patient. The patient should be inert, all of the muscles relaxed as regards his holding is concerned, or stiffening himself. Each time the leg is thus raised and sprung against the hand as the fulcrum, it should be lowered to the table, the hand moved the width of it down the spine, and this may be repeated several times at one sitting, the patient's head resting on side of face turned toward operator. This tends to relax the muscles on opposite side of body. The other side of back should be treated the same way at the same sitting. The ease with which this treatment is given is greatly increased by the operator getting up on the table at the side of the patient, his foot—one of them—placed on the mattress beside the leg of patient, the body resting on the other knee, up near the arm of patient, same side. The results of this treatment are apparent in many pathological conditions, as will be adverted to elsewhere at various times, as occasion requires, in this work.

PLATE XXXIX.

BACK MOVEMENT.

Operator on the side of table, standing. The patient reclining on the couch or table, on the stomach, face downward, all of the muscular system as nearly relaxed as may be, lying near the edge of the table, next to operator. The manipulator, using whichever arm most convenient, places arm

underneath the limbs of patient, just above the knees, placing the other hand about the middle of the back, finger knuckle placed on one side of spinous processes and thumb on the other; he presses firmly, inclining to push upwards, and at the same time raises the limbs upward, making the back form a gentle curve, holding it there and swinging it from side to side a time or two, then halting on a line with the body, increasing the pressure on the back by gently raising the limbs a little higher, then lowering the limbs to the table. This should be repeated several times, moving the pressure down the back, covering the whole of the lumbar region at one sitting. One operator may do this on reasonably light persons without straining himself, and to great advantage of the patient, which will be further explained elsewhere.

PLATE XL.

A CHEST AND BACK MOVEMENT.

The patient lying on the couch, face down, and face turned from operator, the operator places the one hand on the back of subject about the middle of dorsal region, on the opposite side of spinous processes, heel of hand pressing on the body close to the spines of dorsal vertebrae, in such a position as to press muscular tissue away from their moorings, then place the other hand under the axilla of opposite arm of patient, pulling shoulder toward, and pushing with hand on back from the line of axis of the body. This should be done on both sides, moving hand down the back a little each move.

PLATE XLI.

The patient lying on the stomach, perfectly relaxing the whole system as nearly as possible, arms lying loosely to the side or hanging off the side of table, face looking away from operator, the thumbs and fingers are placed on either side of the spinous processes, near them; the operator makes a sudden, springing push downward with both hands, beginning at upper edge of scapulae, and at each such sudden pressure

moves down the back, stopping at the last lumbar vertebra. If the operator is strong, the table not too high, this treatment may be properly done while standing on the feet, but where the operator is small, the patient large, it is better done, easier and more effectually, when the operator places himself on the table beside the patient, on his knees. This gives more ease in producing the necessary sudden pressure; but the hardness of these shocks must be governed by the case treated, susceptibility of force, and effect desired.

PLATE XLII.

A LIVER AND SIDE TREATMENT.

Place the patient on a chair or stool, the operator, standing at one side, places one arm around the shoulders and neck of patient, placing hand in front of upper chest region and holding shoulder so as to control it, places the other arm across front of chest, with hand to opposite side, finger ends placed at the sides of the spines, beginning about the sixth dorsal, and then pull the side forward (toward operator), using the arm around neck and shoulder as an antagonist, pushing shoulder backward, while the other hand is pulling forward, the fingers endeavoring to draw the muscles from the vertebrae, as shown in the plate. This is one of the manipulations used in treating the liver, colic, pleuritic and lung affections that may be frequently utilized.

PLATE XLIII.

THE "PULL-BACK" TREATMENT.

Place the patient on a table, lying on the side; the arm uppermost should curve under the neck and reach back to and catch hold of the edge of the table he is lying on, so as to keep from being turned off of the table during the treatment. Let operator take hold of patient's ankle with one hand (the one above), place the thumb and fingers of the other hand on either side of the spinous processes about midway of the back, pressing firmly, inclining to push upwards, pull the foot and

leg gently backward, giving to the motion a sort of a spring, then let it go to its normal position. Repeat this movement several times, moving the fingers down an inch or so at a time as the leg is drawn backward. This move not only stimulates the terminal filaments of the spinal and sympathetic nerves, but it stretches the abdominal muscles and the anterior muscles of the thigh, and can be extended on down the thigh over the course of the great sciatic nerve, as in the treatment for sciatica and uterine affections mentioned elsewhere, more particularly that of amenorrhea and affections due to abnormal functions of these organs caused by capillary congestion.

PLATE XLIV.

The patient seated on a chair or stool, the operator standing in front, knees between operator's knees, so as to steady the body on stool, the operator takes hold of the wrist of patient with one hand, places the other hand and arm on same side of patient in such a manner as to let the fingers press on the sides of spinous processes on the side next to operator, and up between scapulae, about the fourth or fifth dorsal vertebra, fingers gently curved, so as to apparently grasp the muscular tissue under skin, and now, with the arm extended, carrying arm of patient upward, places same to the side of the neck (of operator), straightens himself upward and backward, stretching all of the muscles of the side of the patient, then holding them in that position, pushes the arm backward gently, firmly, steadily, cautiously, as far backward as a line of the back of the head of patient; then, having a firm hold of the wrist of patient, fingers of the other hand still in position on the sides of spines, bends the elbow of patient at right angles and pushes it down over arm to the side of patient, firmly, suddenly. Repeat this move several times, lowering the hand on the back each time the width of the fingers, covering locality on the back as low down as the lower edge of ribs. The other side should usually be treated the

same way. A moment's reflection shows the importance of these moves in raising all of the chest, side and intercostal muscles.

PLATE XLV.

The patient sitting on a stool, chair, bed or bench, the operator, standing in front, places both hands around neck, letting fingers meet posteriorly, with ends of same somewhat curved, pulps of ends of fingers pressing against back of neck on either side of cervical spinous processes, with the thumbs looking upward at the sides of the head, steadies the head of patient, pulls gently, yet firmly with fingers, and steadying head with hands, inclines to bend neck forward and head backward at the same time, making gentle pressure on back of neck, embracing vasomotor region, holding the fingers in position for a moment, then changing fingers to other points on neck and giving springing motions of neck. This is one of the moves for headache, and comes in the general treatment, and utilized in the treatment of many diseases, stiffness of the muscles of the neck, neuralgia, rheumatism, spinal affections, etc.

PLATE XLVI.

This plate is designed to represent the continuation of Plate XLV. Whilst the hands are holding the neck, fingers nearly meeting at back of neck, close the hands somewhat, raising one elbow and lowering the other, rotate the head partially on its axis, going through that motion, raising first one elbow, then the other, inclining to press upward at the same time, so as to stretch the muscles on all sides of the neck while the movements are being executed; then finish the movement by closing the finger-ends against the sides of the spines of the cervix, pressing so on the fingers as to pull the muscles of the sides of the vertebrae forward, changing positions of fingers two or three times before letting the patient go. This movement should be done with caution, so as not

to dislocate the vertebrae. This treatment will relieve much contracture of the cervical muscles, and greatly aid in relieving congestion of the head.

PLATE XLVII.

TREATMENT OF THE MUSCLES OF BACK OF NECK.

The patient sitting up, the operator places one hand on the forehead, the other on the back of the neck, one or more fingers on one side of spinous processes, the thumb on the other side, and both close up to the atloid-occipital junction, where the finger and thumb are made to press gently—or even strongly, as the comfort of patient seems more or less susceptible to impression—then counterpress with other hand against the forehead, inclining to push upward with the thumb and fingers on neck. Lower the finger and thumb a little and repeat movements until all of the cervical region is gone over. This move not only stimulates the nerves in the vasomotor region, but stretches the muscles on front and back of the neck, aiding in removing much congestion of the venous blood and the lymphatics, emptying them into the large jugulars.

PLATE XLVIII.

This plate represents a neck treatment, and a method of stretching the muscles in many cases where movement is not so much needed as stretching the whole muscular system upward, and at the same time controlling nerve influence as well as arterial circulation, venous and lymphatic activity. It is curative for many severe headaches.

The arm of the operator should be placed under the chin, the bend of the elbow receiving the chin, and the arm so held as not to choke the patient, the fingers and thumb of other hand situated on either side (both sides) of the spinous processes of vertebrae, up close to the base of skull, rather firmly pressed; lift chin gently with the arm, pulling upwards, and at the same time pressing with finger and thumb against back of neck. The head should be tilted gently backward

and forward several times, using gentle upward tilt each time. This should be done easily, but firmly, changing the position of thumb and fingers so as to cover all of the cervical vertebrae at one sitting.

PLATE XLIX.

VIBRATORY MOVEMENTS.—CONTINUED DOWN BACK.

The patient being seated on a stool or chair, the operator bends head of patient forward against chest, places the ends of the fingers of both hands close up to the edge of occiput, just posterior to mastoid processes on either side of neck, and with quick successive movements, holding finger ends against the skin so as not to slip, but move the skin with the fingers; makes movements with ends of fingers, held steadily toward spinous processes and back towards ears of patient, several times rapidly; then moves ends of fingers downward, and goes through same sort of moves, continuing this until these moves include the muscles of back of neck down to top of shoulders. This is a thrilling, vigorous, exhilarating treatment, and aids in promoting circulation of the blood, regulating it, and stimulating recurrent nerves along side and back of neck in all of the cervical region, and embraces the spinal accessory as well, on either side of spine all the way—or anywhere over body.

THE VIBRATORY MOVE ON BACK MUSCLES.

The patient lying on the face, on table or mattress, the operator, standing at the head of patient, places the tips of fingers on either side of spinous processes, pressing on pulp-ends of fingers moderately firm, moves them up and down the sides of the spines, or in a vibratory manner, changing them to different localities at short intervals, so as to frictionize all of the muscles along the whole length of the back. This same sort of a vibratory move may be used in various places on the body, depending on what is indicated in the various pathological conditions. This is a most excellent and effect-

ual means of soothing the system, of increasing surface capillary activity, and stimulating peripheral nerve action.

PLATE L.

This plate shows a special movement for sore throats, catarrh, enlarged tonsils, etc. The patient lying on the back on a bed or table, the operator, standing at the side, places one hand on the forehead, the other across the upper part of the chest, not letting either hand or arm rest on the patient, but places one or two of the fingers on the opposite side of the neck, pressing pulps of fingers against side of neck; push the head with a rolling move over toward opposite side, and at the same time holding the fingers steadily on the skin on the side of the neck so as to seemingly pull the deeper tissue toward him, then bring the head back to former position; repeat process a number of times, placing the fingers at different places on the side of neck at each and every turn of the head from you. Cover all that side of the neck thereby, then do the same on the other side of the neck. Continue moves for several minutes.

PLATE LI.

The patient seated on a stool, the operator takes hold of wrist with one hand, places the other forearm in axilla of patient, extending arm and pulling up in axilla hard enough to distinctly raise the shoulder of the patient, being careful not to use greater strength than simply to lift the shoulder joint slightly upward, the arm being drawn down to the side of the patient, with the hand of the operator, as seen in the plate. This is an excellent movement for lifting the whole shoulder joint, including the clavicle and scapula on either side, as well as both sides. It stretches the serrati muscles, and all of the muscles inserted or attached to the arm, and liberates much of the impeded circulation of venous blood in the whole arm, aiding in the cure of many diseased and semi-ankylosed shoulder joints. Much good may be accomplished by this movement, which should be done on both sides.

PLATE LII.

After raising the shoulder joint, as seen in Plate LI., the patient sitting on a chair or stool, the operator takes hold of the arm of patient at wrist with one hand, and with the other hand just above the elbow, thumb above, and all of the fingers encircling the arm, letting the finger ends rest above external condyle of humerus, in contact with ulnar nerve as nearly as may be where it passes around the condyle of humerus, holding arm of patient against the body in such a manner as that the back of arm shall rest against the body of the operator; and now bend the arm gently backward, springing it a little, then, letting up with the springing backward pressure, holding the arm in position against the body, with the hand holding the wrist, roll the forearm toward the body of the patient, describing as nearly as may be a half circle, squeezing the fingers of the hand holding the arm above the elbow, so as to pull all the muscles forward, and articulate the elbow joint briskly for several successive moves at one sitting. Then treat the other likewise. Do not fail to recognize the fact that this move assists in freeing the muscles, the *nerves*, blood vessels, etc., in that quarter of the body.

PLATE LIII.

TO RAISE CLAVICLE.

The patient sitting up, the operator, standing at the side, takes hold of wrist of patient and places the other hand at the side of the neck, with the second finger on upper margin of the clavicle, about half way between the two ends, the third and fourth fingers resting on the side of the neck, and the forefinger placed above or at the inside of clavicle, in as easy a position as may be; now raise the arm gently, and at the same time push the finger down between the neck and clavicle, then carry the arm to the other side of neck of patient as if to place hand on opposite shoulder, extending it somewhat, which causes the clavicle to be moved outward. This should be repeated, and the other clavicle served in the same

way. This is one way to raise the clavicle, and not the least important, either; and, being used in almost every general treatment, should be done with perfect ease, and dexterously, and need not be painfully done to the patient.

PLATE LIV.

TO RAISE CHEST MUSCLES, AND TREAT SPINE.

The patient sitting on a stool, body as near erect as may be, the operator, standing directly behind, takes hold of the patient at the wrist, letting thumb rest on the palm of patient's hand, with fingers encircling patient's wrist, one foot placed at the side of the patient (at the side the arm is to be manipulated), the other foot placed farther to the rear, the thumb of the other hand placed on the side of spinous process about the upper dorsal vertebra, on the side of processes next to arm to be manipulated; then, being in such a position as to be able to follow the arm to the side of patient, cause the arm to rotate inwards, upwards and backwards, and just as the arm is being brought over the shoulder axis, wrist about even with top of head, the thumb, used as a fulcrum, is suddenly pressed against the back at the side of the spine, and the arm drawn suddenly toward the line of axis of thumb, and as suddenly the thumb pressure is made, so that a sudden stop is now made as the wrist is drawn a little beyond the posterior border of the shoulder, and then the arm is allowed to resume its position at the side of patient. The same move is repeated, the operator bringing the thumb down an inch or so at each manipulation, as aforementioned and described. Care should be taken in this move that the circular move is adhered to, for if the arm is drawn up to the side of patient, pain is experienced in the shoulder joint, and care should be had not to wrench the shoulder out of joint. This is one of the most difficult movements to properly execute, without personal showing—similar to the one made on the table, with arms extended. It is an important move, for all of the intercostals and chest muscles are involved in it, and as the arm is such an

important lever, this move becomes the more important. This move will be very frequently referred to in the treatment of disease.

PLATE LV.

THE KNEE CHEST EXPANSION.

The patient being seated on the stool or chair, the operator takes hold of patient by the arms (above the elbows—hands outside of), holding arms steadily, places the knee on the back between the scapulae, foot turned to one side so that the side of the knee will be against the back, and not the end of the knee, so as to produce pain; now gently pull upon the arms, pushing with the knee as a fulcrum, having patient at the time inhale deep inspiration, the arms being pulled upward and backward at the time. This should be repeated three or four times, letting the knee be moved down each time two or more spaces of vertebrae. When it is known that this move takes off the pressure from nearly all of the chest muscles, the thoracic viscera, relieving many supposed incurable pathological conditions, its importance will be recognized. Asthma is usually relieved at once by this move; painful inspiration, pleurisy, heart troubles and many other conditions are treated in this way. There will be frequent references to this move in the body of this book, and its importance will not be overlooked when tried by the operator.

PLATE LVI.

SHOULDER AND NECK TREATMENT.

The patient seated on a stool or chair, the operator, standing in front, takes hold of the wrist of the patient with one hand, places the other hand on the shoulder of patient, raises the arm with one hand, and with the fingers of other hand extended, grasps the supra- and infra-scapular region, pushes arm upward and backward, pulling and grasping the side, top and back of shoulder region with a gently gripping motion, as the arm is pushed upward and backward, so as to

in several such moves embrace all that side of the neck and shoulder; then treat the other side in the same manner, at the same sitting. Care in making these moves stimulates the health region of the body in such a way as that much relief is experienced at once by the patient.

PLATE LVII.

RAISING CLAVICLE.—HEART TREATMENT AND GOITER.

The patient sitting up, the operator places himself as follows: Standing beside the patient, and taking hold of the arm at the elbow, the elbow bent, forearm flexed, and with the other arm holding the other shoulder, and letting the forearm cross the side and front of the chest to the opposite side, he places the thumb above the clavicle, and as the arm of the patient is drawn up by the operator, the thumb is gently pressed behind the clavicle so as to push it outward as the arm on that side of the body on which the clavicle is to be raised; he now pulls the arm steadily and firmly backward and upward, pressing against the clavicle at the same time, then lets go arm at once. This is one of the methods of raising the clavicle, and should be used for goiter as a first move, as it presses the clavicle away from the large veins which carry the blood from the head to the heart, thus aiding in relieving the pent-up blood in the *thyroid gland*, that produces enlargement of that gland. This, and "a particular altitude on the mountains of Switzerland," produce goiter; and the Osteopath cures them. It requires a treatment two or three times each week for months in some cases, but there are some cases cured in a few treatments. The soft variety yields more readily.

PLATE LVIII.

GOITER MANIPULATION.

Seat the patient on a stool or chair, the operator standing behind patient, both hands are placed around the neck, letting the finger of each hand touch and be placed on the

sides and posterior borders of the tumor, thumbs on or near the temples; begin a sort of rotary motion of the head, pressing with the fingers on the tumor, gradually encroaching on the tumor from behind forward, as each rotary move is made, as shown in the plate. The clavicle should be raised previous to beginning the pressure on tumor. Several moments should be used in this treatment at each sitting, and treatment should be made three times a week. While some cases are easily reduced to normal size, there are others which require months of steady treatment to effect. The soft goiter readily yields to this sort of treatment. This movement greatly aids in freeing stiffness of the neck muscles, freeing the pent-up venous blood, the lymph as well, so that it cures many troubles of the neck and throat. It is a good movement indeed.

PLATE LIX.

DIPHThERIA AND SORE ThROAT.

The patient being seated on a stool, the operator, standing at the back, places one hand on the forehead, the other on the side of the neck, fingers gently curved so as to grasp the skin, and as the head is rolled toward opposite side of neck, the hand on neck on opposite side grasps the skin up close to the posterior angle of lower jaw, or anywhere at the side of the neck, pulling the hand gently as the head is pushed or turned in that direction, and then head returned to its normal condition, face looking straight in front of body; then same move is repeated a number of times, the fingers being placed in different places on the neck, and so on until all of the muscles of that side of the neck are thoroughly manipulated. This sort of treatment is requisite in many diseased or congested conditions of the neck, and is one of the treatments for goiter, diphtheria, tonsilitis, croup, wry neck, headache, etc.

PLATE LX.

UPPER CHEST EXPANDER.

The patient sitting on a chair or stool, the operator,

standing in front, holding patient's knees between his, places hands on either side of the neck of invalid, so as that his fingers press on either side of dorsal vertebrae in the scapular region, well up to the top, the patient locking hands back of his neck, holding tightly, but not holding elbows stiff; the operator, pressing fingers against sides of spinous processes, at the same time pressing the arms of patient outward, using his own fingers as the fulcrum, and the arms of the patient as levers, spreading his own arms so as to push the patient's arms backward and outward at the same time, thus causing expansion of the chest of patient. The fingers should be placed lower as each move is made, so as to cover several successive localities down the dorsal region, and at the same time pulling the hands upward and outward each move, stretching the chest muscles thereby. The importance of this move may be readily appreciated in all diseases of the chest.

PLATE LXI.

A CHEST EXPANDER AND SPINAL STIMULI.

The patient seated on a stool, the operator standing before him, the hands locked back of the neck; the operator places the arm on one side of the neck, hand extending backward, he places fingers on opposite side of spinous processes; taking hold of the elbow of patient, pushes arm backward, and at the same time presses against the back, so as to press the muscles away from the spines, using considerable force, and at the same time letting the other arm be held so as not to displace the (his) fingers on the back—that is, manages to steady the shoulders during these moves. The hand of the operator is lowered a little each move that is made, to press the muscles from spines. The importance of this move may be readily understood in the treatment of diseases of the chest, shoulder joint, and in asthmatic and heart affections, as well as of the lungs.

PLATE LXII.

SPINAL CORD STRETCHER AND STIMULANT.

The patient being seated on a stool, the hands locked and raised perpendicularly over the head, the operator, standing at the side or nearly so of patient, places his elbow through the loop thus formed, with elbow pointing forward of patient, puts his own hand in the locked hands of the patient, and if the patient is heavy, brings hands up to the side of his own neck, then steadies it there, pressing thumb and fingers on either side of the spines on dorsum, beginning as high up as the middle of scapulae; he now raises the arms and patient upward, rather inclining the body backward against his fingers, which are against the back. In the succession of these moves, the fingers are to be gradually lowered each move until the whole dorsal vertebrae are covered by the fingers, stretching the body of the patient upward as much as may be, regarding comfort. This movement enters into a series of manipulations that serve to move all of the muscles of the body and chest, both in front and rear, as well as on both sides. It should be done carefully and dextrously, and will be of great benefit many times. Consumptives derive great benefit from this manipulation, as it stretches the pectoral muscles, serratus muscles, raises the clavicles, the intercostal spaces, and at the same time stretches the abdominal muscles, removing congestion of venous blood, and has a wonderfully exhilarating effect on the whole person.

PLATE LXIII.*a*

CHEST, ARM AND BACK MOVEMENT.

Place patient on a chair or stool, the operator standing in front, takes hold of both hands around wrists, and assistant standing behind patient, places thumbs or fingers on either side of spinous processes, well up between scapulae, holds them at this point as the operator raises the arms of the patient, upwards, pressing them backward by side of head, so as to stretch the pectoral, intercostal and all of the chest mus-

cles upward, and now, with a quick drawing forward of the arms, brings both hands down in front of patient, when the operation is repeated, the assistant moving thumbs down spine one or two inches each time until the back is treated as far as the tenth or twelfth vertebrae, using pressure as if directing thumbs upward each time, raising muscles from the spinous processes, outward as well as upward. These movements relieve many chest difficulties that other means fail to reach. Patient should take deep inspirations each movement.

PLATE LXIII.*b*

This plate represents the position of patient and operators of preceding plate, in the position when manipulation begins, and when arms of patient are brought forward after each move of raising arms above head and backward toward assistant.

PLATE LXIV.

ONE TREATMENT FOR PAINS IN BACK.

The patient seated on the table, couch or chair, the operator, at the side, places one arm in front of the body so as to embrace the shoulder of the patient between his own arm and shoulder, taking hold of the arm—it flexed at the elbow, so that it may be used to draw the patient upward as patient is inclined backward. The operator now places thumb and fingers of other hand on either side of the dorsal spines about the fourth dorsal vertebra, placing his neck behind the neck of patient, patient resting neck on neck of operator, and fingers in place on the back, pulls patient backward and upward, and inclining backward until the elbow of operator rests on the table directly back of patient; then raises patient in sitting posture, relaxing all holds, placing fingers on the back a little lower, presses fingers on the back; repeats these moves until the whole spine is thus treated, observing to draw his own elbow toward his own side of the table, so as to give room for the body of patient to come as low as may be to

receive due pressure upward each move, as the body of patient inclines backward. This treatment should include all of the dorsal from the fourth clear down to the last lumbar, being particular to control the amount of pressure on the sides of the spinous processes according to the susceptibility of the patient, and as the necessity demands. This treatment is essential in many pathological conditions, and should be utilized when needed.

PLATE LXV.

Same as LXIV., only the inclined position, with neck of patient on neck of operator, showing how movement is made, and elbow on the table.

PLATE LXVI.

This move is for stretching the pectoralis, major and minor, coraco-brachialis, and supra-scapular muscles. Useful in many shoulder troubles, rheumatism, paralysis, etc. The operator, standing behind patient, places his arm directly across the upper and front of chest, embracing the shoulder on the side opposite the arm to be treated, so as to steady the chest, letting the point of shoulder be fixed; extends arm to the opposite shoulder (the one to be treated), gathering the muscles under the patient's arm with his own fingers, and with his other hand holding the elbow of the patient, pulls arm backward and upward, and at the same time counter-pulling with the fingers under the arm with the hand placed there, holding the muscles, stretching them with caution, gradually increasing the stretching as the arm and muscles become more pliable. This manipulation and the one succeeding (No. LXVII.), may be used quite frequently for many seemingly stiff and immobile shoulder joints, to great advantage, as well as for rheumatism, neuralgia, and to reinstate normal circulation in muscles of the arm.

PLATE LXVII.

The operator, standing behind the patient, takes hold of wrist of patient with one hand, standing against the side and back of, so as to steady the body, places other hand under lower, outer aspect of shoulder joint, embracing with his fingers the several muscles under the arm in his own grasp, pulling the arm of patient directly forward and across the front of the chest, antagonizing the hold of muscles under arm with the hand holding the wrist. This stretches various muscles at the side, back and under arm—serratus, teres, latissimus dorsi, biceps, etc., and takes off the pressure, increases capillary circulation and relieves pain in shoulder very often like magic.

PLATE LXVIII.

SPINAL AFFECTIONS.

The patient seated on a moderately low stool, the operator standing in front, patient having hands locked and placed at back of neck, the operator extends arms under those of the patient, back, so as to let ends of fingers be placed on either side of the dorsal vertebrae, beginning with fingers anywhere, according to object intended in the treatment, using such pressure as desirable, or needed to raise, and at the same time tilt the body of the patient from side to side as the pressure is being made on the sides of the spinous processes by the fingers, letting the whole body be suspended as nearly as may be, while these moves are being made. The operator may begin with hand down as low as the sacro-lumbar vertebrae, or anywhere between the scapulae. This treatment is essential in many spinal affections, constipation, lung and liver torpor, spinal irritation, backache, lumbago, amenorrhea. The arms rest on arms of operator as these movements are being made, and if the knees of patient are embraced between the knees of operator, steadiness is the better maintained, and a more complete control of patient secured. These moves

may embrace any part or all of the lower dorsal or lumbar regions of the back.

PLATE LXIX.

SCIATICA AND LOCOMOTOR ATAXIA.

The patient being seated on a stool or chair, the operator places himself behind the patient, takes hold of the knee on the one side, places other hand, with thumb and fingers—or simply the thumb—against the side of sacrum, over sciatic nerve, raises knee by gentle pulling of hand, while pressure is made with thumb over sciatic nerve, in a somewhat rotary, springing motion, aiming to use considerable pressure on sciatic. This move may extend the whole length of sacrum or lumbar region, or both.

PLATE LXX.

TREATMENT FOR EYE TROUBLES.

The patient seated on a chair or lying on a couch, or in any position the operator may elect for convenience, the edge of upper lid is raised at the outer canthus with thumb and finger of one hand, and the index finger of the other is introduced into the eye at the outer canthus, and carried as far back as the retrotarsal fold—the posterior border of upper eyelid; the thumb placed on outside of eyelid in juxtaposition to the finger, and compression is made of thumb and finger together, and a gradual stretching of the lid, pulling it from the eyeball, and at the same time compressing *granules* on inside of lid, moving finger in the eye to inner canthus—that is, the inner edge of the eye—clear up to the side of the nose; then, with a sudden move, take the finger out of the eye. This is the upper eyelid treatment for *granulated eyelids*, and should be done every three to five days. *No lubricant* should be *used* on the finger, but the fingers used in and about the eyes should be well cleansed with good soap and water, nails made smooth and clean, and after the above treatment patient should bathe eyes in water, with a teaspoonful of salt to each

pint of water used. If there are *granules* or enlarged *follicles* on inside of lower lid, introduce end of forefinger into outer canthus so as to let palm of finger be down toward inferior border of eye, facing the orbital plate of superior maxillary bone, pressing finger on upper edge of that bone, carrying all of the tissue against the curved portion of it, and pressing somewhat firmly the tissue before the finger down on that plate, carrying the finger to the inner canthus of the eye, and turn palmer surface upward as it is removed to the side of the nose, pressing the whole surface of the inner canthus, and on that portion called the lacus lachrymalis, coming out of the eye quickly—not with any delay or rubbing motion. Get away from the eye when done treating it, at once. Patient will then bathe eyes with the salt and water solution above named, either warm or cold, as seems most pleasant. This treatment should be repeated as often as once in five or eight days. There is great benefit to be derived from this treatment. It takes off the pressure of contracted lids, which causes ulcers of the *cornea*, and perpetuates them, and cures ectropium, entropium, as well as almost all other inflammations of the lids and *eyeball*, blepharitis-marginalis, etc. Reference will be had to this plate frequently. The two plates represent the treatment of both eyelids, for all sorts of eye troubles—chronic especially.

PLATE LXXI.

FLEXING KNEE ON THIGH AND THIGH ON ABDOMEN.

Patient lying on back on couch or table, operator seizes leg just below knee and proceeds to bend limb at the knee and thigh, doing so strongly, stretching muscles of the whole limb, and while in that position the hip joint may be manipulated with other hand and fingers, beginning on sides of lumbar vertebrae, as high up as desirable to liberate muscles of that area, and proceed to treat along down the course of the sciatic nerve, bringing the limb outward and downward each time the fingers are pressed upon area covered by them.

This is the method of moving hip joint in nearly all of the ailments of the hip joint, and in confinement to rest the loins and hips after parturition. It soothes, rests, stimulates, promotes free circulation of the blood, and very often relieves all or any of the muscles of the hip joint of pain, or the limb from soreness.

PLATE LXXII.

VARIOUS DORSAL TREATMENTS.

The patient seated on a stool or chair, the operator places hands under patient's arms, placing his finger-tips against the sides of the spinous processes, gently lifting the body of patient and swaying him from side to side, using alternate pressure each move, changing position of hands each sway, beginning either at sacro-lumbar junction, or anywhere along the spine, according to effect desired. This movement is used for many conditions of the spine and abdominal viscera.

OSTEOPATHY ILLUSTRATED.

FUNDAMENTAL PRINCIPLES.

It is a fairly well established fact that physicians regard the administration of drugs uncertain in their effects in the treatment of disease. The chronic affections uncured, and by drugs uncurable, demonstrate to a certainty the unreliability of their action as curative agencies. The presumption that drugs act in some mysterious manner, and have a special affinity for diseased structure, finding their way to pathological parts, unite with a particular form of diseased structure, wrest its progress, hurl it from its moorings, and leave the parts cleansed, purified, swept and garnished, healthy, is an untenable and untrue premise to assume, the results failing to justify.

To assume that anybody needs anything but the normal elements to maintain health is to distrust perfection in creation, and to regard foreign substances as curable or in any respect compatible when diseased is to assume a theoretical improbability, for the restoration of the normal constituents of the body restores the balance of power caused by deficiency of elements. Restore the elements, and health is re-established. The freedom of the circulation of all the fluids of the body restores vitality.

That any one of ordinary intelligence should presume to assert that humanity is a machine, or that any one should compare a man to a machine, is surely not to be considered tenable nor applicable, yet he is composed of all the elements that go to make up all the machinery in the world, but

is not a machine in any sense whatever. The comparison is ridiculously inconsistent, to say the least of it, for he embraces every element in nature, rising from the earth, containing mineral, vegetable, animal, and reaching his acme in spirituality—controlled by a divine mind, acted upon through a set of cords originating in cranial centers, conducting the divine impression to the remotest atoms in the farthest-off locality in the various apartments of the house we live in, called the physical body.

That mind formed this wonderful structure, that it permeates every part of it, that this mind is conveyed through tubes we call nerves, and that through these nerves supervision—or the mind through these nerves regulates the manufacture, absorption, the assimilation, elimination, and every chemical change necessary to the conversion of the food eaten into the various tissues, bone, muscle, etc., is not questioned at the present day. But to assume that the body is a mere machine, is surely begging the question and mocking Deity.

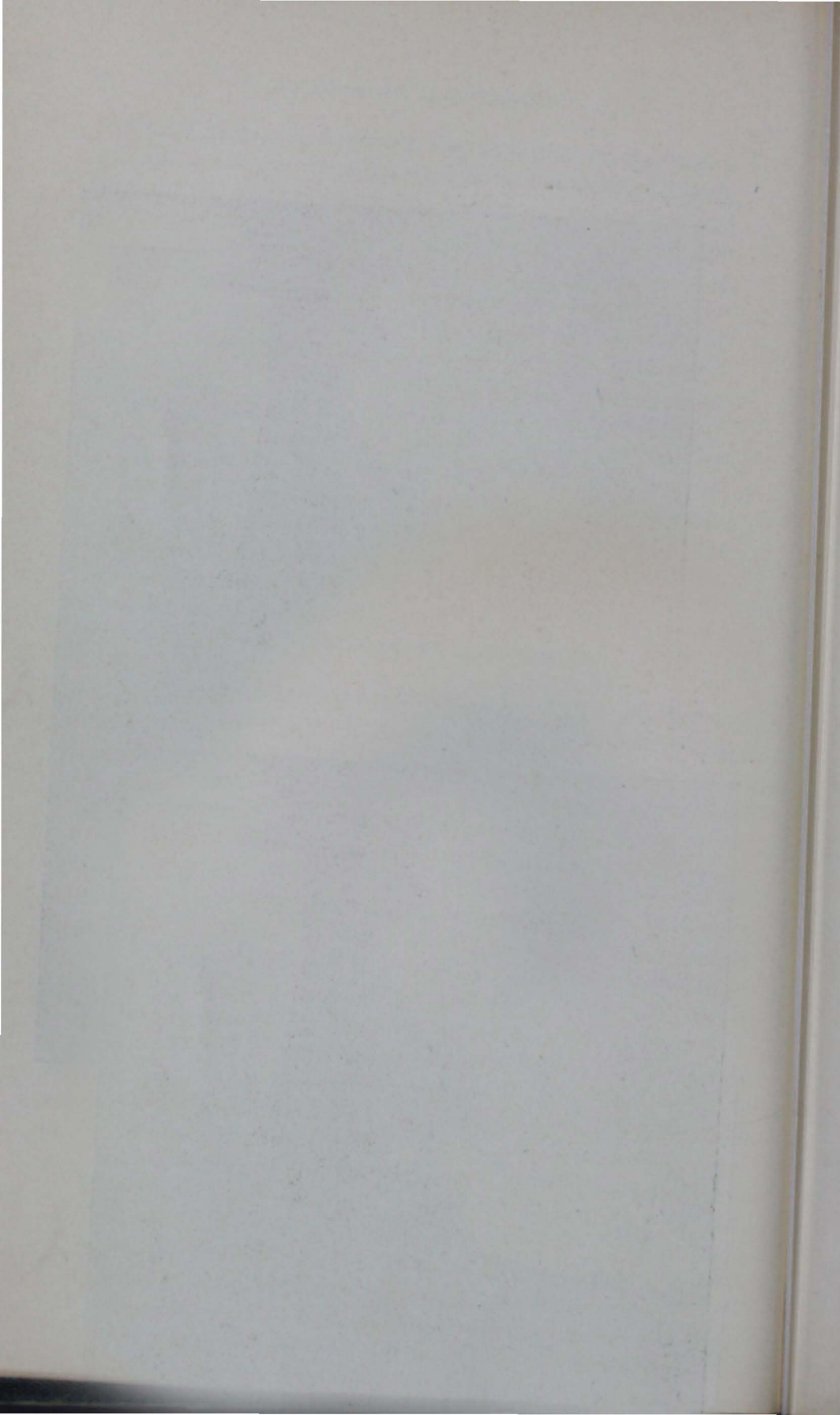
The marvelousness of the science of the adjustment of the system to itself, and the complete and sometimes the almost miraculous change produced in the tissues through the application of the principles of Osteopathy, place it in the front ranks as the most stupendous fact of the nineteenth century. The practitioner is often appalled to witness the results. To the Osteopath, whose eyes have seen and whose hands have figured in producing these wonderful changes, it is commonplace, but to the one who has thought it possible to cure disease only through the administration of medicine, such a result—the relief of pain, the cure of long-lasting ills—by a simple adjustment of the system, by a slight manipulation or move of a muscle, it becomes astonishing!

The philosophy of curing disease by this science is simple, rational, certain, safe. The human system is composed of sixteen elements. These elements are derived from the food eaten and the water drank, and the atmosphere that surrounds him. All these various elements are manufactured

and made ready to assimilate as they pass through the various tubes of which the whole structure of man consists, changing from the one element to another, according to the supply and demand in the various tubes through which the food—the blood—passes. As the blood passes from the heart and enters into the arteries, thence into the capillaries, certain elements are given off through the walls of the capillaries, entering the surrounding tissue, taking the place of the used-up tissue which is drawn into the lymphatics, to be ushered into the venoles, thence into the larger veins, mixed with the various debris, including all of the chemical constituents from the various tissues of the body, pushed onward into the right side of the heart, thence thrown into the lungs, to again undergo chemical changes—to be renovated, purified, cleansed, made over, then returned to the left side of the heart, thence to be carried through the arteries to every part of the system. And so on as long as life in that body lasts. The system possesses the power, being under the control of mind, to continue this same process every moment of time that we live. When there are no obstructions or interference in this natural process, health is said to exist. When every organ in the body is performing its function or functions in a natural way, we are not cognizant of pain or disease; but let any interference with the onward flow of any of the fluids of the body take place, a change occurs—chemical change. This change results in a disturbance of the molecules of the whole body. When the blood does not circulate normally, we at once recognize disease-producing elements somewhere in the body, and to the extent of the obstruction will be the result pathologically. To make this matter easily understood, to elucidate this subject, is the object of this book. If the reader carefully follows me in my delineations, there will come into his mind, and he will master the most marvelous science that the world has ever had presented to it. To take hold of a person, adjust the system in such a manner as to free the circulation of all of the fluids of the body, and through that process change all of the



PLATE I.a.—First of General Treatment.



chemical elements from an unnatural to a natural condition, seems incredible to the one uninformed. That this can be done is perfectly compatible with truth. No remedial system ever devised by man can boast of such a result. The larger percentage of the abandoned ills of the flesh yield to this treatment. There are no medicines necessary, neither does this book recommend drugs.

We have tried the various systems claiming to possess all there is in the healing art, demonstrated to our satisfaction that there is a better way to relieve affliction in the way of disease than is known by either of the medical schools, and that this book will contain the full and complete science of healing without drugs, and that no individual need falter to use it according to the instructions contained herein.

The philosophy concerning this method of healing can not be overthrown, and will be accepted wherever practiced, and by all who desire to be cured or cure others without let or hindrance. It needs no legislative bolstering up. It carries with it weight of evidence of its efficacy in every trial, properly applied. There is no harm or bad effects following a right use of this science, if used according to the directions given in this book. Each move or manipulation is shown and fully explained herein, so that nothing is wanting to make this work attractive and useful to the community adopting it, and the physicians will soon become its warmest advocates.

Osteopathy is a term applied to a particular process of healing wherein the bones of the human system are regarded as, in some way, factors in producing that condition called disease. This may be further defined by regarding the definition of the parts of the word itself, although strictly speaking, misapplied. The word *os* means mouth, bone, and is a symbol for osmium, a heavy metallic element belonging to the platinum group. *Osteo* is a prefix, signifying connection with or relating to bone, and *pathos*, the faculty of arousing sympathy, emotion, passion, suffering, feeling—disease. The most reasonable definition of the word is, resulting from

obstruction. Hence Osteopathy is a term that is used to designate pathological conditions, caused by the interrupted flow of the fluids of the body, or pressure due to contracted muscle or muscles, or irritation of nerves or nerve centers, paralyzing nerve function.

This may be better understood by stating that disease is the result of partial or complete stasis of the fluids in general or particular, anywhere in the body, and the result, name or nature is wholly due to the parts or tissue involved.

That disease should result from pressure, and that a physiological condition can be established by taking off the pressure, seems hard to believe, after having had centuries of instruction otherwise. Any discovery out of the ordinary receives little attention, especially when old ideas are deeply rooted and become a part of ourselves. To presume, in the face of long established, time-honored methods, stereotyped customs, that we are "weighed in the balances and found wanting" in the real facts, starts up a feeling of resentment in us that knows no bounds, and we are ready to rise up in our strength, dignified manhood, and denounce it as an interloper, a fraud, unworthy the consideration of intelligence, and are ready to stamp it out of existence, were it possible, simply because it does not comport with our long-cherished views. This has been the history of mankind in all of the ages past. Humanity is the same now it always was, and any new method or principle out of the common course of events must expect opposition until it proves itself worthy a place in the archives of established usages—becomes a necessity, in harmony with general thought. Then, if truly meritorious, the *new* acquisition takes place alongside of the great mass of material that the world regards with complacency. That Osteopathy should be an exception in this regard should not be presumed. We do not anticipate miraculous transitions of mentality all of a sudden, but we regard this step as one that is greatly in advance, deserving of more attention, based upon stronger claims, more easily understood, far more efficacious in results,

decidedly more in line with reason, philosophy; and fraught with better satisfaction than any method, or all of the means, ever devised or used by professed scientific men, or the various schools, in any or all of the ages past, in relieving humanity of physical sufferings or pathological conditions—and that, too, in the least harmful manner. This will be found true after you shall have completely mastered the science and applied it to the various and multifarious pathological states recognized as disease.

Whilst we are greatly obliged and truly thankful that Dr. Gowers classified the action of the nervous system, and that Dr. A. T. Still first promulgated to the world the possibility of complete or partial dislocation of bone or bones producing pain, disease, yet we are not willing to concede to either one the honor of originating or developing the philosophy of cure to its present standing, or application to the cure of disease. Necessity, in this science, as in all other relationships in life, is the mother of inventions. When it is considered that those who assumed the premise that *all* diseases were curable by the application of Osteopathic principles, it required more than one brain to formulate and devise means or improvise manipulations adaptable to the various pathological conditions found at various times in the human system—all of them presenting different symptoms, different pathological states, in different parts of the body, in different climates, latitudes, in different races, at different ages, and in different temperaments, involving altogether different structures. It has taken no little time, much thought, a fair understanding of the system, anatomically, physiologically—with much patience, a host of *patients*, labor, comparison, will-power, mechanism, and perseverance by many minds—to demonstrate the exact status of this science. This is, then, the result of a combination of mental, as well as physical forces, formulated and systematized so that it can be reasonably explained and elucidated and applied as a means, and in most cases of cure, that is, to say the least of it, surprising.

The *how* it does it seems to be the hardest thing to show the mass of people. That they should demand it—an explanation and a perfect elucidation of its workings—is a greater mystery than the science itself. They gulp down any sort of a “bolus” from other doctors, and never for a moment think of asking a reason; “that is medicine—we are used to it—it physics, pukes, or relieves pain”—that is all the patient desires. But let some one propose to relieve pain, cure disease, by a mechanical process—adjust the system to itself, take off the pressure, or remove the *cause* of his ailment—he is at once denounced as a quack, a fraud, unworthy to do business in a civilized community; and persecuted, maligned, insulted, prosecuted, and that, too, by the very men who, if called upon to “give a reason for the hope (of a cure) within them,” could not do so. We are not shooting at random along these lines, for we know whereof we affirm, and claim to be able to demonstrate the efficacy of the practice of Osteopathy, and to know that medication, as it is understood, practiced, applied, is not comparable in any respect with Osteopathy. That there is efficacy in certain elements, and certain antidotes to poisons, we hesitate not to affirm, and that there are times when these should be used; but that there is power in medicine to cure diseases seems altogether untenable, unphilosophic, unreasonable and unnatural. Our practice for years has proven the utter fallibility of curing disease by the use of drugs. Elements supplied, when needed, should be done as you would supply food, not as a medicine—in no instance whatever.

It has taken thirty-five hundred years (since the days of Asa) to educate the people up to the idea that medicines taken into the system did in some way cure disease, notwithstanding it is said that “Asa, when he was sick, resorted to his physician instead of to his God, and he slept with his fathers”; and people for the very same reason have gone to BED too EARLY in consequence of resorting to physicians. There seems to be no let-up in that direction, and the people continue to

believe that medicines are essential to the cure of their diseases. To argue to the contrary seems futile. The dark pall that broods over the world to-day, the wand that holds in surveillance vile, and makes slaves of us all, rests in and originates from education along this mysterious pathway, and like a weird, spectral ghost, holds enwrapped in its strong and sinewy arms, with a deathlike embrace, every nation, race and tribe of people.

To lift the veil, to uncover and expose to view this mighty, time-honored custom, and with one fell stroke erase it from the pages of history, blot it out of the memory of man, and give it no place, and discard it as unworthy of further consideration, to declare annihilation, to end its ravages, seems herculean to say the least of it. The hardest thing to induce mankind to do is "to repent," to acknowledge their wrongs. It is so easy to float with the tide that we seldom make an effort to change our course, and the large majority of mankind float on down the stream, out into the great ocean of life, regardless and unmindful of how they do so. All down the ages men have arisen who have "moved the waters"—produced a ripple and started streams which have influenced the direction of the current of human thought; and these, like oases in the desert, created an interest that lifted the race a step higher. Great reformers in all ages have been the beacon lights that led the nations out of bondage. The discovery of forces, the union of substances newly discovered, the combination of elements unthought of before, have evolved results that bring us to a realization of our advancement, ascending higher and higher into a clearer light. This has been the case in almost every department of thought, except the restoration of our own bodies from physical ills; in this, stereotyped customs have engulfed the people for ages. While a knowledge of the structure of the human system has increased, its relationships with itself and the rest of the world, yet a scientific, clear, unmistakable method of righting our physical wrongs—in a word, curing our ills—

seems to have been sadly neglected, and in the strife to present something new, or to discover some "fountain of life" that would perpetuate existence, the results are confusion worse confounded, and the question still rings in our ears, "Is there no balm in Gilead, is there no physician there?" After all our experience, it is quite well decided that the so-called medicine theories are frauds. The uncertainties of the actions of medicines are almost universally recognized.

THE PHILOSOPHY OF APPLICATION OF THESE PRINCIPLES.

The reader is wont to ask, "How can you apply Osteopathy to the treatment of all diseases?" The very reason that the vendor of his "patent medicine" recommended it to the cure of all diseases, no matter of what character or type or stage, at once brought to mind the utter impossibility of its application in the cure of anything. While in the instance named there is but one thing to consider, and that is that disease is not dependent upon a supposed "*materies morbi*," that can be neutralized by a compound, or a single drug, but upon a series of causes that ultimately culminate in impediment or obstruction of the circulation of vital and other fluids in the *body*, that no compound or medicine can possibly reach, and that can only be removed by a physical effort on the part of self or some one else. This is the reason that there is such a wide range of usefulness for the practice or application of Osteopathy in the practice of the healing art. There is scarcely a pathological condition thought of, discovered to exist, or that ever will exist, wherein this science will not be usefully and necessarily demanded. It is kaleidoscopic in its application to the cure of diseases or pathological conditions. And while we shall have occasion to name a great many diseases, the application of the principles represented in this book will be apparent when once applied.

There are many things that we shall never know, and we shall often be astonished at results in our application of this philosophy, but the end will justify the means employed, if

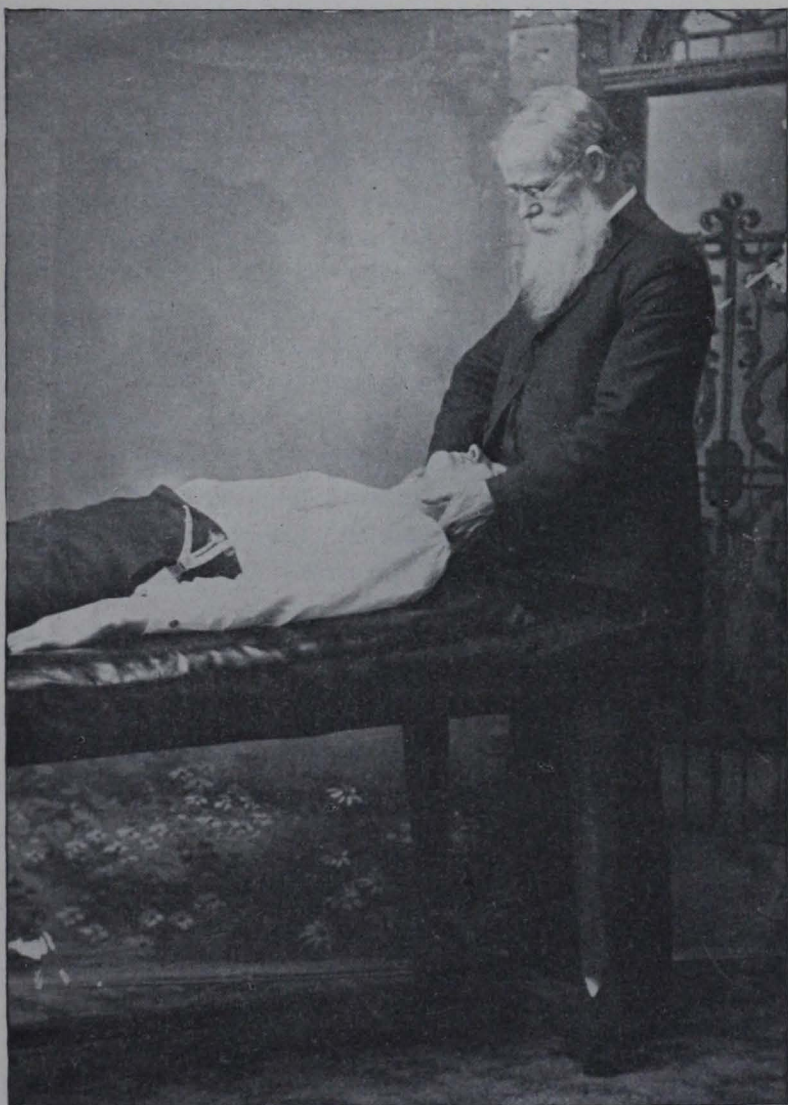
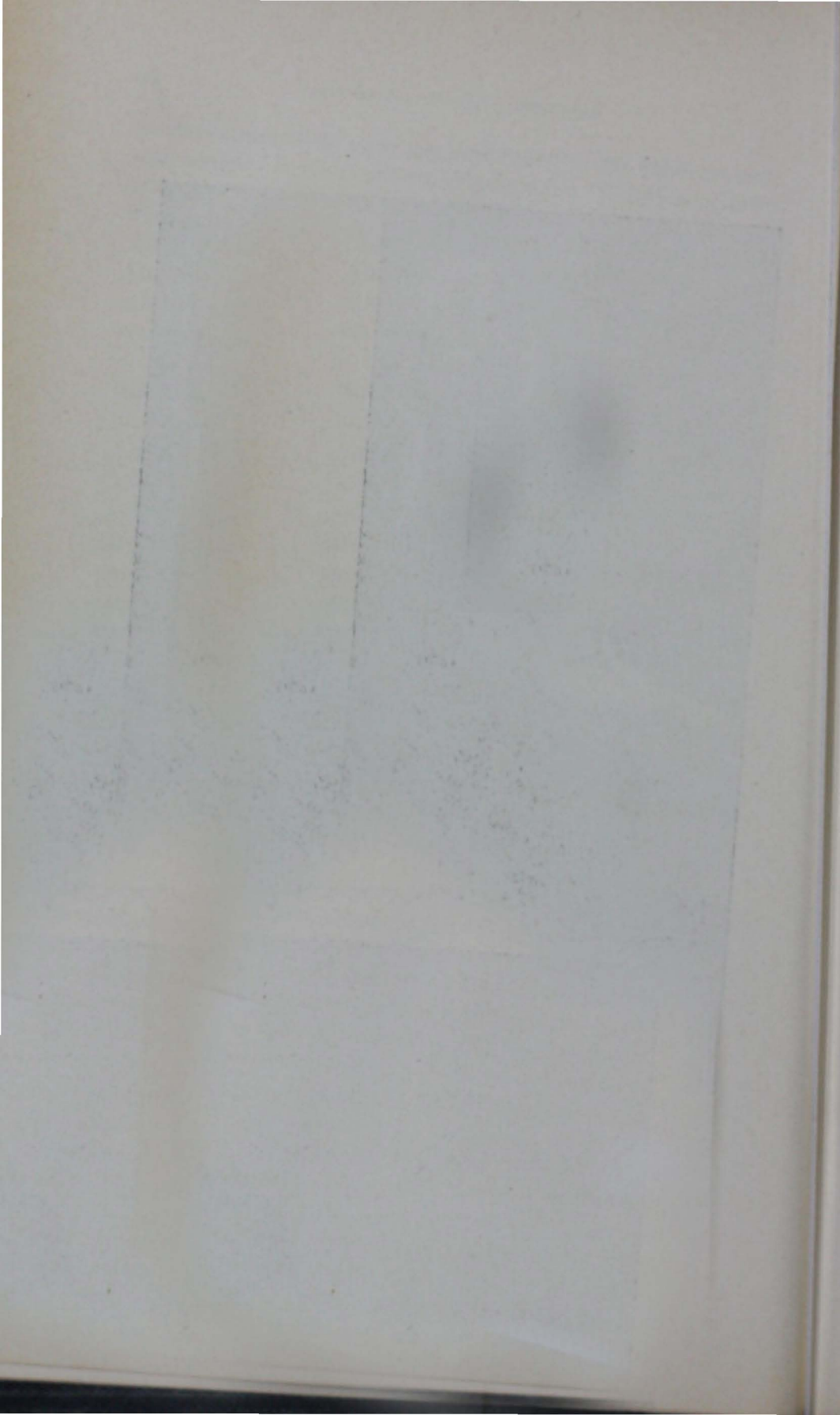


PLATE I.*b*.—Continuation of Plate I.*a*.



properly done, and conditions thought to be incurable will be seen to change for the better as these principles are applied. To even relieve and cure a few cases of acute or chronic suffering would seem to justify the necessity of presenting this book, but when this is done without doubt, and hundreds of conditions are alike changed satisfactorily to both applicant and manipulator, the value of the science will increase in estimation, wherever known and by whomsoever utilized. It is not a "*try system*," and try again, but a *reliable certainty*, applicable in all pathological conditions, an aid at least in ameliorating the ills that "flesh is heir to" in mankind. The medical profession will soon adopt its philosophy, apply it in their practice, and often wonder why they had not applied it long ago. Results will satisfy all of its merit, and prejudice will wane as investigation progresses. It only needs proof of efficacy, and that will come by application, to convince the medical profession of the importance of this simple method of cure, and gain their hearty support of it.

THE ULTIMATE OR PHYSIOLOGICAL CONSTITUENTS OF THE
BODY.

When it is known that the "blood is the life of man," and that it contains sixteen elements, and that these are combined in various quantities to form the compounds of all the tissues of the body, and that but *three* of these, viz.: Oxygen, nitrogen and hydrogen, occur in their free state, it will dawn upon the reader that to be a proper physical being called man, these elements must exist in the body. The formation of these various compounds in the body begins in and is largely derivable from the food eaten. The manufacture of these elements from the food is superintended and controlled by the organic nervous system. This nervous system originates in the *head*. It is distributed all over, through, in, to, and everywhere in every tissue of the body. The circulation of the fluids of the body is under the supervision of this system of nerves. Culminating in large numbers, and terminating at

the upper and posterior part of the cervical region, they constitute the so-called "vaso-motor nervous system," and here we are enabled to start forces that control every artery, capillary and tube that convey fluid, throughout the whole physical organism, regulating even the action of the heart. This same nervous system permeates every gland, controls the secretion therein, superintending the combination of the various parts of the body, so that no "schism" occurs—that is, in a natural way. These various elements are manufactured from the food eaten, and made soluble, miscible, affinity-tized by the special direction and control in every part of the body by the sympathetic nervous system, having the sole management of the "house we live in."

To understand this essential department fully, thoroughly, simplifies every effort on our part to know the process of these unrevealed processes that are constantly going on in our bodies, and account for the repair and waste that constantly go on in this marvelous structure, denominated the "form divine." A system of healing, based on a knowledge of the various constituents of which this body is composed, a knowledge of each and every part; a knowledge of the laws governing its every change, the combinations of these various elements in every part of the body; the manufacture of this and that element and their especial part to be carried to and deposited in, so much of this and so much of that particular element, and to form each and every part in a certain form and maintain it in that form for "three score and ten years," is surely an interesting subject to study. And when we undertake to explain to the reader that disease exists only as a consequence of incoordination somewhere in the system with every other part, and to cure our ills by coordinating the various parts of the body with every other part, cures disease, and that without drugs, we are confronted with opposition of the fiercest character, and if we lived only two hundred years earlier, our carcass would receive the same fate as others have for even expressing simpler truths. Before we are

through with this subject we hope to make it so clear that all may see it in its true light. We must understand that the blood contains all of the elements. These elements are distributed everywhere through the arterial system.

When there are no obstructions, and the fluids of the body everywhere circulate, the nervous systems performing their functions normally, the changes occur naturally, and the elimination is not interfered with, is there any reason why that sort of a system is not healthy? But suppose undue pressure is made somewhere, that impediment to the normal flow of the fluids should occur, does it not stand to reason that there would necessarily be an accumulation at that particular part; that pressure would be at once produced right there, and if continued, increase, and that this would involve other structures in that neighborhood, continuing to increase and spread until there existed that condition we call congestion? If this same thing occurred in a stream of water, and the supply from above continued, what would we call it? A flood, wouldn't we? And suppose we raised the embankment higher, would not our fluid (water) accumulate until it covered all the country up to the very source of the fountain from whence it originated? This illustration is surely simple enough to be understood and comprehended by the simplest of observers. To further illustrate this simple, though unknown proposition by the masses (including many so-called physicians), we raise the curtain still higher and throw in a greater flood of light. Suppose this accumulation is in some important blood vessel?—what then? The accumulation would necessarily press against the walls of the vessel until expansion (dilatation) took place, and if in a vein we would call it venous congestion, or varicosity of veins. If in an artery, we would name it aneurism. We therefore unhesitatingly assert that almost every pathological condition described under the various names in all of our leading medical books is traceable to this state (barring poisons—and these do indirectly by paralyzing *nerve centers*, and these being unable to control mobility

of the parts to which they are distributed, congestion ensues, and always in proportion to the centers involved). The importance of the circulation of all of the fluids of the body, from its introduction into the system until it passes out, can not be too highly considered, if health be a desideratum. The elements are held in solution in the watery fluid of the body, and this constitutes about seventy per cent. of the whole body. All of the inorganic compounds are held in solution in the watery portions of the blood.

The organic constituents of the body consist of urea, uric acid, xanthin, hypoxanthin, hippuric acid, kreatin, lactic acid, lecithin, neurin, cerebrin, leucin, tyrosin, and cholesterolin. These substances are essential to the elaboration of cells. We could not exist without these elements. It is a strange, but singular fact, that the exact proportion or equivalents of these substances are maintained by supply and demand, and that all these constituents are divisible into proximate elements, principles and ferments, and that they are normally prepared in the body by the glandular system. Hence to furnish all of these elements, to keep up the supply, to distribute them to the various parts of the body where they belong, to build up this and that bone or muscle, due regard must be had to the proper adjustment of the system to itself, so that there be no undue pressure anywhere, to interfere with normal action of every part. The importance of these elements will become more apparent when the reader is informed that the offices of the various parts of the body are influenced wholly by the presence of these elements, and that the sympathetic nervous system superintends the manufacture of these chemical constituents from the material in the body itself, received through the food or the atmosphere by inhalation or absorption, and that the five hundred and twelve muscles of our body would become stiffened and immobile without that element called Kreatin. This substance contains carbon, oxygen, hydrogen and nitrogen, chemically combined in due proportion. Then, without Hemoglobin, there might be cir-

culatation of the fluids throughout the body for a time, but it would soon be without oxygen, for oxygenation could not take place without this substance. In order to have impulse through the nerves we must have that element called Cerebrin, and an essential to the communication of thought is found in Lecithin and Phrenosin. When we consider that six of the elements of the body are contained in Albumen, it is essential that there be an assimilation of it, but without Tyrosin and Leucin there would be none, nor would there be epithelial cells; and in the elimination of dead cells it is necessary that Xanthin be present. Cholesterin has for its office the supervision of the growth of young cells and the removal of old ones. The oxygenation of the cells requires the presence of Cystin and Sulphur, together with its preceding presence of Hemoglobin. Protagon assists in the assimilation of albumen, and Inosit is necessary to the fluidization of lymph and the flexibility of muscular tissue.

These particular and wonderful chemical constituents, all essential to the existence of man as he is to-day, are all evolved from the blood, and when all parts of the system are performing their proper functions these products make up the sum total of the physical organism, but when outside influences are brought to bear and new compounds introduced among them, untold mischief results, all due to incompatibility. This is the principal reason why medicines do so much harm, and why the true physiologist so persistently opposes them. The long-cherished theory that some peculiar materies morbi, acrid humors, malaria, etc., in the blood, cause disease, has no foundation in fact, and in the light of what we here assert and fully demonstrate, does not appear reasonable or possible. Theories must give way to facts. We most earnestly and respectfully assert that when every part of our physical system is properly adjusted, so that a perfectly free circulation of all of the fluids of the body, in the body, exist, we have health. We further assert that no sort of so-called Bacteria causes disease, and that they do not, nor

can they exist in healthy blood, but are found only in morbid, broken-down tissue, always the result of the impediment somewhere in the normal circulation of some or all of the fluids in the parts where said "bugs" are found. And we further assert that when a proper restoration of the circulation is brought about, the proper hygienic environments prevail, the poisons are eliminated. To clothe, to enshroud, disease with a mantle of mysterious morbid matter, and to theorize on mooted opinions, give us no satisfaction.

Contrast, if you please, the time-worn repetitions of antiquated theories which have been forced upon the people by the learned doctors, with the plain, tangible, physiological facts, illustrated and fully demonstrated, and which any one may verify with perfect satisfaction, and you will conclude that we have sufficient reason to present our claims, principles, practice, to the world as the most rational, satisfactory, perfect system of healing ever devised or invented, supposed or suggested by the learned in all of the ages past! This is no dream, no idle speculation, no myth, no mystery, but the plain, simple, unvarnished, heaven-born *truth*, the marvelous light that is destined to bless the unborn nations now in the womb of nature, and not only that, but lift the dark cloud from the living habitations, where misery, disease and death brood over them. Let the world know that something reasonable, logical, true, stands with open arms to lead them out of bondage from the agonies of disease, and place them on freedom's side of life, to breathe without pain or distress the free air of heaven, without drugs, and then the line of march will begin—rejoicing will be the watchword instead of despair. That there ever should have been such a delusion as that held out by medical men to the afflicted that medicines cure disease, seems appalling! That a necessity should arise for some foreign substance, wholly incompatible with every tissue, every element in the body, to cure disease, is altogether unreasonable, unphilosophical. Regarding the elements that make up the physical organism as sufficient, not only in num-

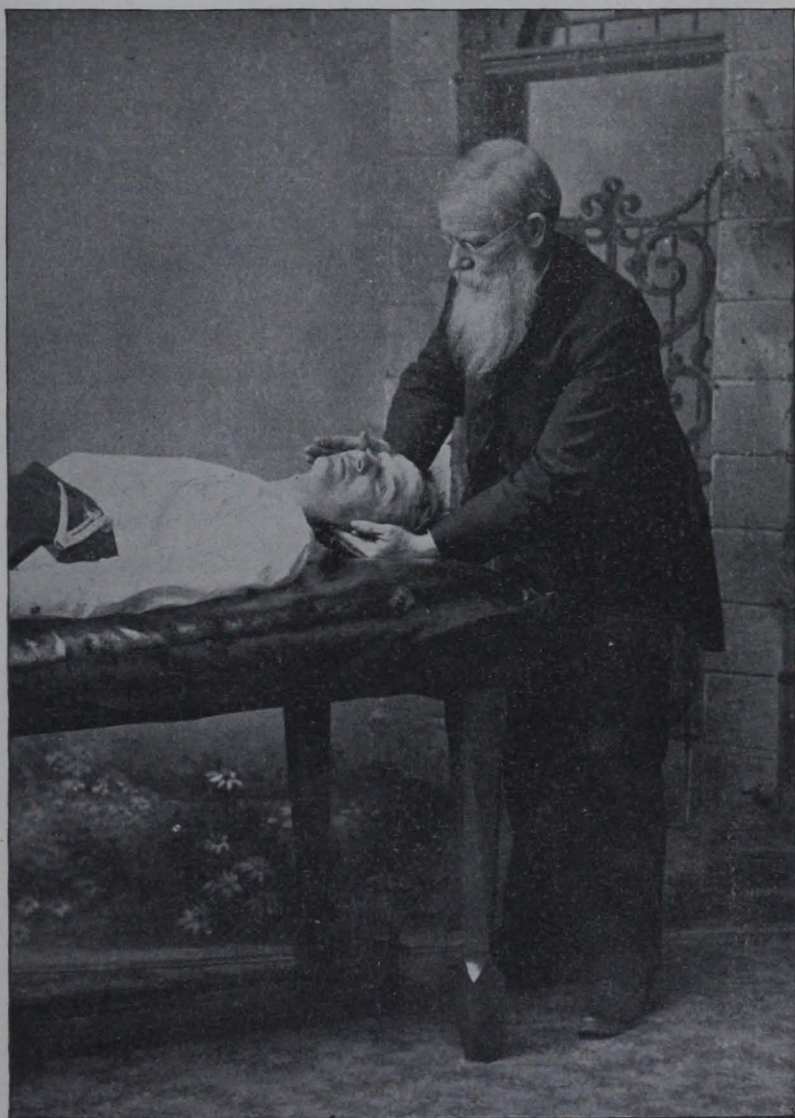


PLATE II.—Treatment of Side of Neck Muscles.

Many of the
documents
written
in
the
17th
century

ber, form, size, but properly proportioned, combined, and that any addition thereto is a source of disturbance, confusion, causing increased effort or chemical change, where is the logic, the reason, the necessity of such agencies? Especially when the proper adjustment of the system to itself, the coordination of every part, is restored without? It is only hypothesis, to say the least of it, that medicines benefit or in any way supply the demand. In the large majority of instances they are injurious. To assume that any one of the various systems of medicine is correct, contradicts the assumption of the claimants of all the rest. That they are all fallible places them on a level, and to disprove the efficacy of the one disproves them all. The world-renowned Dr. Hufeland made this remarkable statement once in his work: "Man has two great enemies to fight—Sickness and Doctors." He might have added "drugs." The famed, the great Professor Wunderlich wrote in 1852: "Instead of investigation, we find Empiricism; instead of facts, we have *theories*; instead of correct conclusions, *dogmatic rules*; instead of ascertaining *causes*, we have useless talk." And Dr. Richter, in his work on "Medicine," said: "No science is so full of erroneous conclusions, mistakes, lies, dreams, as the so-called Science of Medicine!" Many who would get well if left alone, are killed by the art of doctors. If one sees a physician take a pen to write a prescription, he feels like saying: "Lord, forgive him, for he knows not what he does." We are wont to say that had there never been doctors, mortality, prior to a good old age, would have been rare. We might quote authorities denouncing the use of medicines, but the masses already know too well that poisons kill, and that they are uncertain commodities in a diseased stomach.

In the course of investigation in the field of this science we desire to say to the reader that our design in writing such a work is not to advance theories, but to present facts, and that what this volume contains can be relied upon as correct.

The illustrations, with the descriptions of each illustra-

tion, reveal the most marvelous system of healing—or showing how nature heals—ever imagined. Nothing like an elaboration of all of the principles and the philosophy of this method has ever appeared in print, so that a correct understanding or an approach thereto could be had, and we are assured that, when the physician or the intelligent layman reads the pages following, a revelation of the whole science will stare him in the face and appeal to his or her judgment as tangible, rational, plausible, practical, applicable, correct. We have no pusillanimous crouching nor egotistic dogmatism to thrust; instead, plain, unvarnished delineations of great, broad, philosophical principles which lie on the very surface and become fuller, larger, more attractive, satisfying the more they are studied, unfolded, learned. To assert that *Osteopathy* is *now* known, seems to the thinking mind untruth, for a science is only “*a knowledge of facts*,” and to say we have all of the knowledge of all of the facts of any particular set of agencies is to assume divine power, and it is not the province of humanity to assume. Osteopathy, as expressed at one time by Dr. A. T. Still, “was like a squirrel in a hole in a tree, with its ears or the point of its tail just outside—the body was not yet discovered.” While this was a crude way to express it, it had some semblance of truth in it.

There have been such jargon and confusion, and so much contradiction in undertaking to define what is claimed for Osteopathy, that I refrain from the strife by simply defining *what it does*, and how to apply it to and for the cure of disease. One remedy after another has been extolled for its wonderful properties in the cure of disease, held mighty sway for a brief period, and been superseded by some other supposed to be more potent; and others in like manner, until the pages of ponderous volumes have been filled with remedies called medicines, and the brains of great and learned physicians have been taxed to their utmost to learn which should be used in the various diseases that afflict mankind. Each particular symptom has been the suggestion to try a special

drug, until symptoms have increased, remedies failed, and the long list of remedies and symptoms continue to increase, until now "the books will hardly contain" the symptoms and the remedies prescribed for human ills. Can any one of ordinary intelligence come to any other conclusion than that the whole so-called theory of medicine is a *stupendous fraud*? Can any one wonder that four years is a very limited term to learn medicine? And when it is learned, what is there in it worthy a rational man's consideration for one moment? Confusion, worse confounded! Uncertainty, disappointment, confront the practitioner of any and all of the various systems which presume to regard medicines as essential to the cure of disease!

It would seem that enough has been said, enough experienced by the afflicted to convince any rational person that, as medicines and the knowledge of their effects, their therapeutic properties, become known by the various practitioners of the various systems of medicine, a mitigation of the suffering, a shortening of the time that disease holds sway, should be secured; that the rate of mortality should lessen, and that the acute affections should be cured, and chronic diseases thwarted entirely. But all of the boasted efficacy of remedies, glowing advertisements of cures performed, or said to have been, have for their object the increase of the exchequer of the advertiser, and disease, like an armed foe, stalks forth abroad in the land, laying hold of the innocent as well as the stalwart sinner, and, despite the dosings of *potent* remedies, they soon become "food for worms."

If we had nothing better to offer humanity than a "bundle of lies," our conscientiousness would compel us to relinquish our claims as a contributor to the already overburdened effort to do something to arrest, to delay the visitations of the wielder of the "scythe of time," and we would cease our further efforts in that direction now and forever. But, having searched the labyrinthian records adown the ages for something reasonable, something that had power to conquer, or

hold in check the "fell destroyer," and at least give to the world a breathing spell, and searched in vain in and among the archives of ancient and modern lore, along the lines where medicines have made their dark and sickening records, I had almost concluded to abandon the effort, until, like the "prodigal son," "I came to myself," found that there is in every human being sufficient self-sustaining power, properly coordinated, to resist all of the ills that "flesh is heir to," if we only knew how to set it in order when, from any cause, it were out of order. And having learned that even this could be done by the adjustment of the system to itself, we renounced the uncertainty and became an enthusiast and an advocate and practitioner of the certainty. To the individual who has watched with bated breath to see the effects of a dose of medicine to result favorably, and writhe in agonies of disappointment—to see the patient die in agony that we now could avert—is only compensated by the fact that in teaching others the better way, we may preclude the possibility of such from experiencing the same kind of disappointment, snatch the sufferer from the immediate jaws of death, reinstate him to his former healthful condition, save a soul from premature death and its consequences—for a time at least. How many children are sacrificed every year by the use of medicines, that might be saved, cured, by the application of common-sense principles, that this book teaches? We rejoice in the fact that we have learned how to relieve so many so easily, quickly, that other systems utterly failed to even benefit. These simple means may be learned by all who can tell the difference between good and evil, and the ignorance of medical men will become so manifest that all may see it. To persecute and prosecute persons for being able to relieve their fellow-creatures will then become a thing of the past, and every community will demand of the practitioner a reason for his methods of cure.

In some localities, those who learn to treat disease and cure people by this *new method*, will be maligned, abused,

persecuted, and possibly prosecuted by the doctors. That was the case even with the Great Teacher, the Divine Healer—Christ. Not only did the Healer receive indignity from the hands of the scientists, but the poor victim, as soon as it was ascertained that he had received benefit from a source out of the ordinary and prescribed code, shared the same fate, if not a worse abuse. It is even so now, after a lapse of nearly 2000 years, and the “assistors of nature,” as they style themselves, and especially that *honorable body, the State Board of Health* (?), will deny the new healer the right to practice his art on the ground of being *irregular!*—for lack of being *recognized* by their Code of Ethics. It is an established fact that, whenever any man arose and advanced or advocated a clearer idea, a clearer vision or more plausible method of doing a thing than the rest of his fellows, announced a better way, brought it far enough forward to demonstrate its superiority over established customs, the scientists, the representatives of established theories and customs, began to malign, to abuse, to oppose. It is reasonable that this should continue, for the same spirit of envy rankles in mankind as always did, and the spirit of persecution is as manifest now against a *truth* by the *false* as ever. It matters not how many a poor misfortunate has suffered at the hands of physicians, been consigned to linger with some painful affliction through long years—the remainder of their days, and recovered under the new *regime*, that jealous hatred in the dominant schools of healers continues to crop out, to grow, and to reek its vituperations against the *new* science, and thrust its venomous sting into its victim with a zeal worthy only of the right. Everything that envy and hatred could invent, every deep-laid scheme, has been used against every worthy advancement in all of the ages past, including religion itself, as well as the advancement in knowledge of any new discovery made or proposed to be promulgated. That there should be such a spirit seems so unreasonable, so irreconcilable to the spirit of common honesty, is the strangest phe-

nomenon imaginable, and contrary to the very interest of humanity. There are some men whose minds are so blunted with prejudice, the child of ignorance, and others so self-opinionated, that nothing but the very thunderbolts of the crack of doom can ever arouse them to a sense of justice. Malignity stands out in every wrinkle on their venomous features, and springs into hideous and unsightly visage in every shade and shadow of their existence. Such people are not the sort we expect to influence for good—they are sealed—their place is already assigned—their sins “go beforehand”; but to arouse to consideration the respectable of the medical profession, and to have them lay aside their moss-covered prejudice and investigate the character of the claims of this new science, we heartily desire.

We know that if the least spark of the shimmerings from the marvelous light of this science should cross their benighted pathway, they can not withstand the magical warmth of its genial rays, but will learn what it meaneth.

If we could draw the curtain aside that hides the real facts from the people regarding the *laws* “regulating the practice of medicine,” so that they could perceive that, instead of said laws protecting the people, they are simply protecting the doctors, legalizing them in the administration of poisons, it would throw a different light on the whole subject. What right has any body of men to prescribe another’s choice as to what physician he or she shall employ, any more than to prescribe what church he or she shall attend? What right has the Legislature to make laws to legalize the use of poison, under the pretense of it being a medicine? The right of choice is the strongest principle in the whole range of human action. The *will* of man as regards his own welfare is the most sacred right in all the realms of his physical existence, and for a law to be palmed off on the people just because a *few* poison venders formulate it and lobby it through the legislative branches of the law-making powers, to satisfy the perverted malice of designing men, is to perpetrate upon the

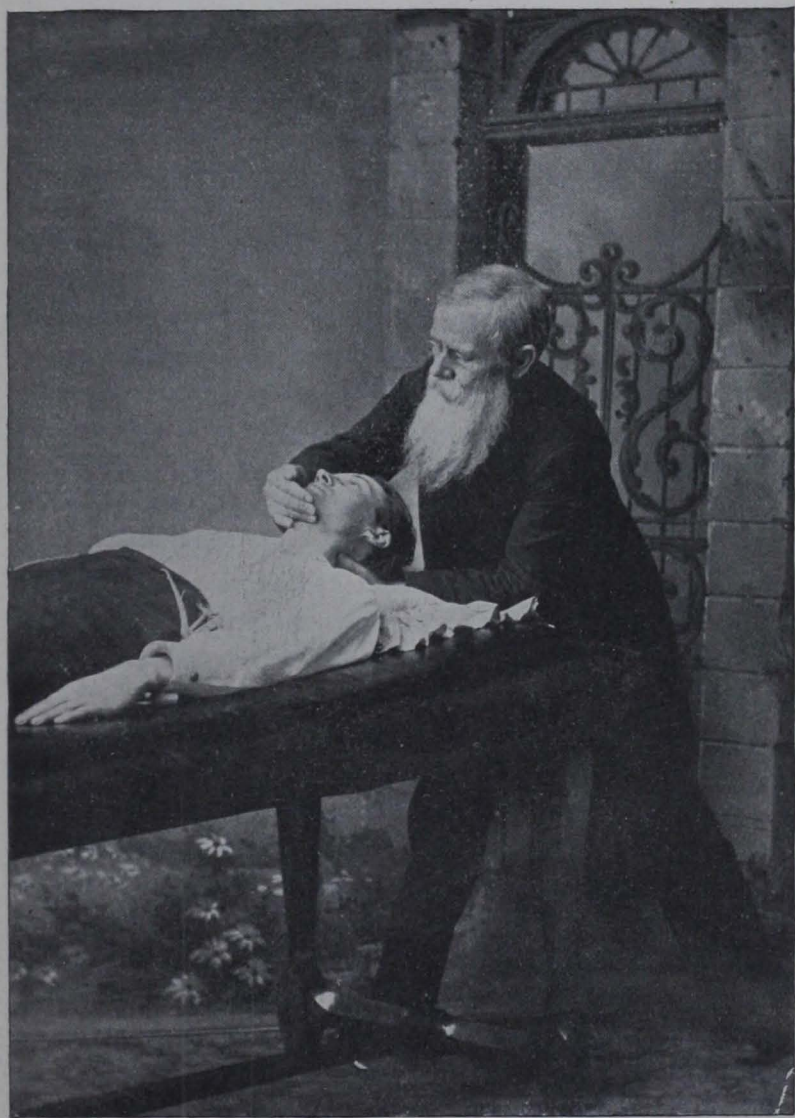


PLATE III.—Stretching of Neck Muscles.

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people the grandest farce conceivable or imaginable. What do such enactments strike at? The very foundation of human liberty; the sacred rights of man to use the gifts or intelligence that God has endowed him with, and the skill which he himself has acquired. Such proceedings partake of the very nature of the "star chamber," whose decrees led to a revolution and the death of a great king of England on the scaffold. The very idea of there being such a thing—an Executionary Board in any civilized State—a Medical Board of Health to control and regulate a set of poison vendors, and to have their powers extended to ostracize everybody else who is not competent to administer poisons to the sick! Where is the justice in legalizing a class of people to deal out poisons to persons simply because they are diseased? While the masses are slow to act, slow to realize their privileges, yet we venture to predict that when the people learn that they can be cured without poisons introduced into their systems, the medical Code of Ethics, as it now is, will lose its influence, and the statute-makers will erase from its pages the disgraceful, unjust class-laws now on them, and leave the people the right of choice as to their manner or method of being treated when sick. When it is known that sickness is largely the result of ignorance on the part of the individual, or those having supervision of them, the thought will turn to the education of the masses along the lines of information in regard to the physiology of the body, the laws that govern it, both in health and disease, and not confide in the limited and selfish dictations of a few designing men, denominated "Health Boards." Our object in writing this book is to free the mind from every form of slavery, remove from our environments every vestige of influence that tends to circumscribe the powers within us, start the forces that are God-given naturally, remove all sources of irritation from the conception to the last hour of physical life, and then we may expect a race to come forth whose actions will harmonize with each other, and strife and animosity be wiped out of existence.

To cure diseases without medicine to the medical profession seems unreasonable from the fact that too much stress has been put upon the *modus operandi* of drugs, and the prevailing belief is that unless the sick take medicine his recovery from disease is doubtful, to say the least of it, and if he should die without medication, and especially from some one recognized by the Board of Health, the friends of the patient have committed a crime, or an unpardonable offense. Habit has so fixed itself on the mind of the people, and custom has so stereotyped the habit, that it is hard to erase these long-cherished usages. We hope that those who read and study this book may see and know that medicines have no place in the curriculum of treating the afflicted when they are said to be sick. Wherever prejudice is laid aside, this method investigated and the results compared, the decision will be on the side of recovery without drugs. When the reader shall have learned that diseases of the most malignant type and under the most unfavorable circumstances yield to this method of treatment, prejudice will begin to wane. But so "long as our craft is in danger" (drug systems), there will be a howl. The people, without knowing anything of the science, or the method practiced, have been wont to associate this method of cure with that of some of the mental methods of cure; but to such we would remark that Osteopathy is a system of manipulations which adjust the human system to itself, taking off the unnecessary pressure, removing obstructions wherever present, any and every where, in or on the body, thereby permitting the circulation of the fluids of the body to continue uninterrupted, as is the case when the body is in a normal state. There are no secret processes to mystify the patients, nor mental mumbling of the so-called healer, no secret electrical or magnetic influence that is hidden away in the sleeves of the operator; but a simple, matter-of-fact adjustment of the system to itself, resulting in restitution of mental and physical forces that we recognize in health. There are thousands already who bear testimony to the efficacy of

this most rational method of healing. We shall endeavor to make it so clear, plain and comprehensive that any one of ordinary intelligence may apply it to the cure of every form and condition known as disease. The medical fraternity will be astonished beyond measure when they shall have learned that diseases considered incurable by any known drug, are readily cured by the merest tyro in Osteopathy!

The domestic who administers a drug does not in any way change the effect of it. The proper adjustment of the system to itself, by whomsoever qualified, mentally or physically, to do so, does not change the result; and when the common people learn that diseases can be cured by this method, and not run the risk of being killed by medicine, however scientifically administered, is it not reasonable that they will adopt it? Who, then, will find fault? What necessity, then, of having "statute regulations"? Every man can relieve his fellow-man whenever occasion demands, and no time lost sending for a "nature-assister" called a doctor, to give medicine and expect results.

As long as the medical profession continue to hunt "bugs" and attribute the diseases to them, advancement will be impeded, but when it is known that healthy blood excludes such a possibility, and that healthy blood results from normal circulation, they will cease their search for *new bugs*, or bug theories, and go to work to learn how to promote the normal circulation of the blood and other fluids of the body—in itself causing every disease known to mankind. The Bacteria or Germ theory of disease is now the great fad of the nineteenth century. The Malaria theory was twenty-five years ago the prime cause of disease in this country, and quinine the remedy. Virchow advocated the Cell theory of disease, and asserted that in health the cells were healthy, and in disease they were diseased. Wonderful light this! The question as to *how* they got wrong was never demonstrated, neither did any man ever discover a remedy to right them, nor is there a man in all of the medical ranks who

has ever dared to propose a remedy or series of remedies that can be relied upon that will set them right when wrong—in the way of medicine, whether mineral or vegetable. The Germ theory is surely the shallowest idea ever advanced, yet the whole medical profession bases its whole theory of disease on it, notwithstanding the signal failures on every hand. To presume to claim that any theory of medicine has a shadow of a right to claim a scientific basis would be such a palpable contradiction of facts that no sensible one in the ranks of any one of them would dare to assume. The truth is, the whole so-called science is a stupendous jargon of empiricism, hypothesis and experimentation, changing every one or two decades to something else, or basing their theory of cause on something else than what to them seemed established, and per consequence change their remedies to suit their new theories. Now who can truthfully assert that such a heterogeneous course has any semblance of reliability? Every new drug added to the list of therapeutics is blazoned forth in *red ink* and regarded as superior to every predecessor, and the old ones laid on the shelf as a back number—superseded. What do you think of such a system? Can you afford to rely upon it when disease lays hold on your nearest and dearest friend, a husband, a wife, a darling child, and a loving and beloved son or daughter? The “try systems” are exceedingly doubtful, to say the least of them. After two thousand years of such jargon, uncertainty, and signal failures, these very same medicine vendors boast of being the arbiters of health in every community—the *Regular Profession*! These are the men who denounce as “*quacks*” every system that differs from or prescribes for the sick differently from their prescribed rules, and not only persecute, but threaten and often do prosecute the offender, and denounce him as being unworthy the rights of citizenship in any community, and recommend punishment and excommunication from civilized society! Yet they must remain to deal out their poisons to innocent, helpless victims without let or hin-

drance as the arbiters of health and happiness! These are the very men who hound Legislatures, armed with and recommending proscriptive legislative enactments to "regulate the practice of medicine," and claim to "protect the masses from infamous quackery," when they are the guilty parties themselves. A system so rotten that it needs legal protection is surely far gone into degeneracy, and should quietly die a natural death.

THE WARFARE AMONG DOCTORS STILL EXISTS.

Doctors of the same school are frequently and almost incessantly calumniating each other, and no matter how well selected the remedy in a given case, if another doctor is called he is wont to remark that "this or that would have done better," and the patient "would have done better had the former doctor known his business." Diagnosis all wrong—treatment inappropriate. The family is frequently reproved for calling "that quack." The jealousy, ignorance, impudence and selfishness—rivalry, that exist among doctors even of the same school are disgraceful, but between opposite methods they are simply the culmination of premeditated hatred, often expressed in unbecoming qualifying adjectives of intense emphasis, reptilious in character. No other professionals revel in such vituperative methods. Why the doctors of the various schools do so is a mystery. If the doctor loved his calling, not simply for the money in it, and that he tries to get out of it, it would engender in him quite a different spirit. To love a thing there must be implicit confidence in it; then he will respect the object of affection, then it will not be regarded as a "dead letter"—as a degraded and hideous, grinning skeleton, but worthy his noblest efforts to elevate it to its highest possible sphere.

The large majority of the practitioners of to-day have absolutely no confidence in medicine, for the curative properties almost always leave him in the lurch, and their suffering

patients consoled with the idea of simply "temporary relief," and morphine or other sedative or pain-paralyzer administered, and the patient informed that there is "no cure for him," and he may content himself to bear his affliction as long as he or she lives. The result is generally understood. It is generally a money consideration, and the doctor aims to get out of his suffering, deluded patient what money he can, and then recommend him to some other one of his kith, or recommend "climate" as the last resort! It is only a question of how much he can get out of his victim in many instances, and he crawls, snake-like, to the well-to-do, the rich, looks down on the poor as a misfortunate, and his soul, if he possesses any, is in his pocket, and he worships at the altar of Mammon, and to that all of his energies are bent—the great cause of truth and humanity, and a noble profession (that of relieving the afflicted), ignored, everything noble, holy, and sacred trampled upon. There is nothing more holy in life than to succor humanity from affliction! What is more glorious, and what recompense equals the gratitude that is often seen in the tear-bedewed, quivering eye and lip of the one relieved? If all our aims are happiness, then how happy any one should be if he is permitted to be an instrument of inestimable good to his fellowmen by the rendition of his best efforts in doing good to the afflicted! Life at best has its sorrows, and if everybody would strive to alleviate the condition of others, earth would "blossom as the rose," and the "New Heaven" would environ the race!

To be happy, we must get back to *first principles*, and cease to follow *opinions*. Then our steps will be guided by the *eternal laws of right*. Here is where we would have all to return—in the matter of health as well as regards matters of faith; then strife will have no room to distract or mar our happiness. All should be interested in this.

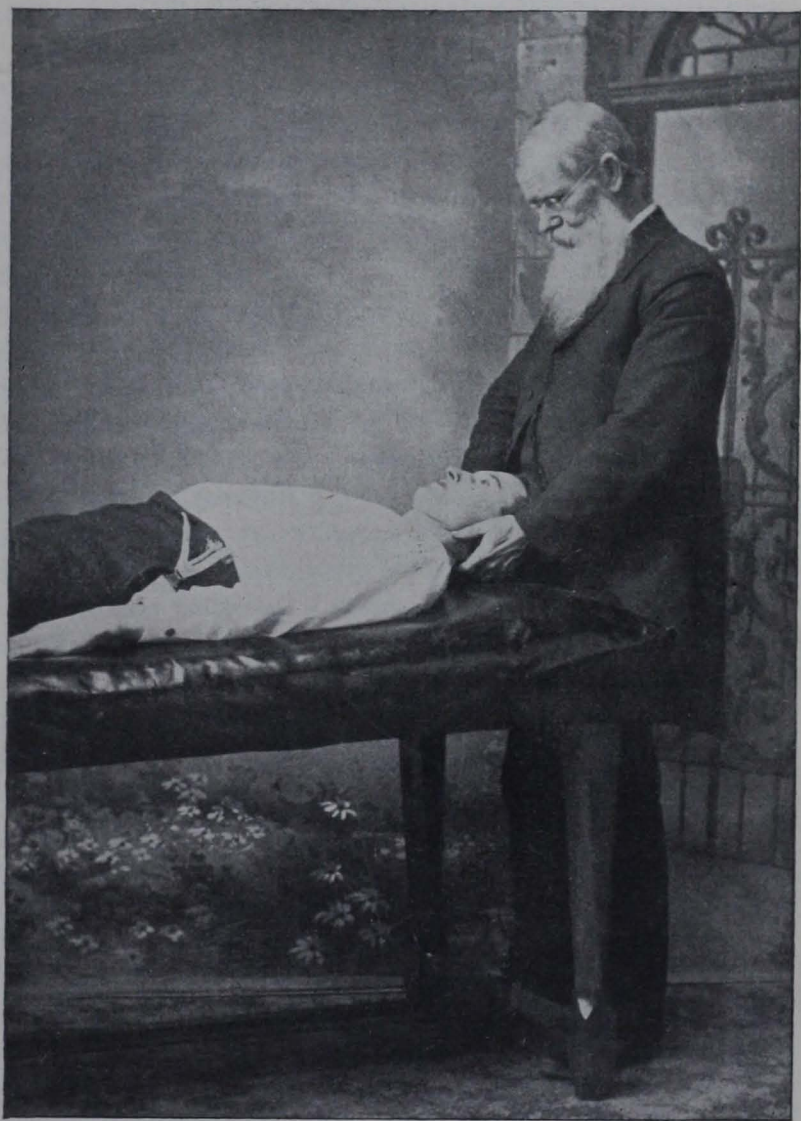
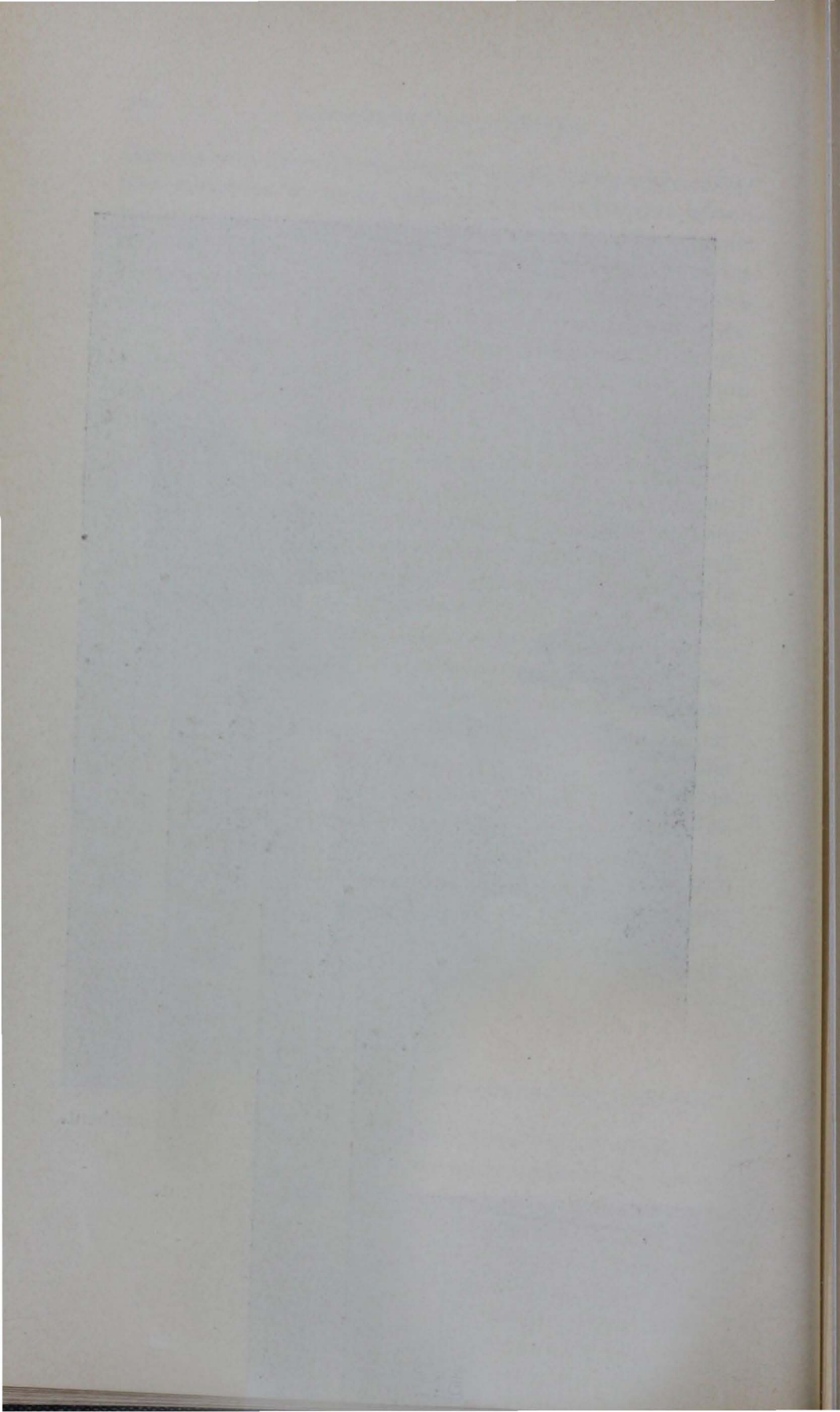


PLATE IV.—Vibration of Neck Muscles, Patient Recumbent.



CAN THIS SCIENCE BE RELIED ON IN EMERGENCIES?

We would remark in the most emphatic terms, we have found it so for five years, after having tried all other means for over *thirty-five* years. We would not have the reader to understand that any and all methods combined are universally successful in averting death under certain circumstances and conditions, but we do say that, more than any other system now in vogue, known or practiced by anybody to cure disease, Osteopathy is nearer a universal means of relief and cure of the ills of the flesh than any other ever tried, used or employed. I especially emphasize the necessity of recognizing the tissue elements, for without them—which make up the body—all of the manipulations known would be ineffectual in curing diseases caused by lack of them.

That there is good in something else, and many things now in vogue, I pretend not to deny. That universality of application to every pathological state exists only in what is now recognized as Osteopathy, I pretend not to claim, yet the principles that underlie all remedial agencies do exist, and may be and are appropriate in all, there is no denying. The methods used are sometimes at variance with results intended, when, if *the how* to apply it were understood, results would be different—generally satisfactory.

Surgery occupies an important place in the treatment successfully of many pathological conditions, that many Osteopaths are wont to ignore or are wholly ignorant of. The removal of *nerve-depressing influences* require the knife sometimes, and should be recommended and surely used when necessary. Then nature is permitted to assert itself, and the result is a cure, when, if the operation had not been performed, the case would have continued. The egotistic dogmatist often manifests obstinate imbecility, to his or the patient's disadvantage. When it is fully understood that "taking off the pressure" is the text of our discourse, and that it is essential to a cure, the means will be used to do so in the best manner possible. The measures recommended in

this work are not mere experiments, but the result of matured thought and actual experience.

There are efforts made to write out what "Osteopathy means" by incompetent persons—men whose limitations are perceptibly circumscribed mentally, and the marks of deficiency, intellectually, show in every line, on every page, in every sentence; so that distrust, rather than confidence, is created in the science, when, if intelligence had stood out more conspicuously, Osteopathy would have, ere this, received respectable approval, whereas now its advocacy is regarded as questionable, simply because of its being practiced by such persons as are known to have no qualifications along the lines of the profession practicing the healing art. That is the most remarkable part of this science. Its application, even automatically, surpasses in efficacy other systems supported by the lore of ages! Yet, it is nevertheless a notorious fact that there is need of proper presentation of the great principles governing it to lift it up into the sphere of appreciative individuals, so that its good may be realized by all.

Books and periodicals are being written on this subject, and the masses will soon be in possession of the knowledge of the grandest science discovered relating to, and having for its object the cure of diseases, and that, too, without drugs!

WHAT IS OSTEOPATHIC TREATMENT?

We mean by Osteopathic treatment: The manipulation of the various parts of the body of the person who is afflicted with pain or disease, so as to liberate any and all undue pressure, such as over-contraction of muscles, pressure on a nerve or blood-vessel which, interfering with the normal circulation, produces that condition called disease. These, we contend, produce all of the various phenomena denominated Pathology. Whether the pressure be due to a partial or complete dislocation of a bone, contraction of a muscle, or muscular fiber of one or more muscles, the object of these

manipulations is to *free* the system everywhere, in every part of the body, so that perfect harmony in all parts of the body may exist. To do this, a knowledge of the human system is of first importance to be a successful Osteopath. Whatever pathological condition found anywhere in the system, our motto is, "*take off the pressure,*" in order to a cure. Then we observe returning health in that body, no difference what peculiar name given to the affection. If there is heart trouble, no means relieves until the pressure is removed that produces it. Whether the intercostals are contracted, lessening the chest capacity, or whether the clavicle be drawn down so that pressure is made upon the neck veins, or pressure is made upon the nerves in the neck leading directly to, and controlling the heart's action, or interfering with the normal control; or whether there be congestion of the lungs, producing pressure upon the pericardium or the blood vessels—the thing to be done, to cure, is to take off the pressure.

If there is interference of functional action of a nerve anywhere, that condition is continued as long as there is undue pressure on that nerve. If the muscles contract down on any one or more of the recurrent nerves of the neck, function of that or those nerves is interfered with. If there is headache, due to the capillary congestion, cutting off the flow of blood through the capillaries—or in the tissue in the part, what other thing to be done than taking off the pressure and let the blood or fluids continue? If we have enlarged tonsils, is it not on account of arrest of flow of the blood or other fluids in the tonsils? That being the case, what is the indication? Remove the obstruction. We have a wry neck—the sterno-cleido-mastoid has lost its balance—irritation of the nerve that controls its action exists—contraction ensues, the head is out of balance—the neck is drawn, mobility is difficult or arrested, every muscular fiber in that muscle is crying: Take off the pressure. The mucous membrane is all red, congested, catarrh is present; pain in the frontal sinuses exists—a thin watery exudate is present—soon it thickens—chronic

coryza is the result. What is the matter now? What causes this affection? *Capillary congestion*. The veins of the neck are pressed upon. The jugulars are distended, the return current of blood is obstructed. What is to be done? Take off the pressure—keep it off, and your catarrh gets well. Contraction of the muscular fibers in a muscle tightens an aponeurosis, a tendon, a ligament—this is perhaps drawn across a nerve; it may draw a bone partially out of its relationship, distort a number of muscles, each in turn contracting its fibers, produce undue pressure on nerves, blood vessels, or lymphatics; pain ensues, fluids increase in the parts, pressure increases, pain intensifies—rheumatism ensues, mobility ceases or is lessened, and much disturbance of the whole system is noticeable—perhaps there is increase of temperature, amounting to a fever; the trouble goes on increasing, inflammation ensues, finally breaking down of the tissue begins—suppuration closes the climax! All this in consequence of abnormal pressure—which, if it had been taken off, the whole phenomena, as portrayed, would not have been. We go on down the neck; out of the sides of the cervical vertebrae to nerve bundles that terminate in various muscular fibers on the shoulder, and supply the arm and forearm, wrist and hand with nerves—these are pressed upon by muscular contraction—pain or paralysis ensues. What is the means of relief now but to take off the pressure? We proceed on down the spinal column: important and controlling influences are met with at every step of our advance, and we find that one of the ribs has become distorted, a vertebra is out of line, some muscle is contracted, pain exists in and around the heart, there is dyspepsia, the liver is torpid, cardialgia ensues—acidity of the stomach is perceived—it becomes a common thing to eructate acid. Now, what is the indication? Will medicine correct the difficulty? remove the cause? adjust the distortion? Is it reasonable to expect drugs to correct this difficulty? What is the indication? Answer—Take off the pressure. We pursue our examination along down the ver-

tebrae, and now we are between the scapulae. Here, between the fifth and the sixth vertebra we meet with a set of nerve filaments that seem to control (or supply influences that control) the digestive system; regulate the secretions of the liver, stomach, pancreas, and thereby promote order in digesting the food, and prepare it for absorption, and control the negative forces of the so-called *solar plexus*. Here we reach nerve filaments that, being stimulated by our manipulations, regulate digestion, relieve pain and cure stomach and liver troubles by restoring normal secretion in the organs themselves. Passing on down to the eleventh dorsal vertebra and including the twelfth, we encounter nerve filaments that go directly to the kidneys, control its secretive and eliminating powers, and restore normal action of these marvelous and truly important organs. Descending still further, we at once come to plexuses of nerve filaments that actually control generation, superintending the animal portion of the human body, and exercise influences that are the marvel of all ages and all thought! Through these nerves we connect the animal with the spiritual man-starting forces at or near the second and third lumbar vertebrae that superintend, in both sexes, the procreative organs, with all their marvelous consequences, making life pleasurable or miserable, according to the freedom or pressure along the lines of distribution. Our observations continue to become interesting the farther we go, for out of this lumbar region are nerves that go to and superintend the various organs in the pelvic cavity, as well as communicate through end fibers, with the brain itself, and receive in turn directions how to regulate the restorative and eliminative processes of the lower abdominal viscera, colon, rectum, genitalia, etc. Here we reach the fibers of nerves that pass on down the lower limbs, and that control muscular action, blood supply, nutrition, elimination and circulation of the fluids of these parts.

Thus we see that we reach the whole person through our manipulations, exercising an influence over every part. This

is done with a certainty that no other system of healing ever devised by mortals can boast of. When the reader comprehends the fact that *the nervous system controls the whole system*, a large amount of light opens up and shines forth as clear as the *sun at noon-day*. The manipulations that seem so simple at first sight, become matters of exceeding interest; his faith enlarges, his former prejudice softens down, melts away in the azure light of the first dawnings of a great truth that almost produces blindness on account of its marvelous brightness. To be able to take hold of a person and so adjust the system to itself that diseases of all kinds are dispelled, is surely a consideration that becomes peculiarly, as well as intensely, interesting to contemplate. To do this without introducing drugs into the stomach adds importance to the process. Hundreds of cases pronounced incurable by a large number of as good physicians as medical schools produce, and as long practice and experiment have qualified, cured by this system of treatment, increase our interest in the science, so that it becomes a matter of no small consideration.

The results following the proper application of Osteopathy are constantly accumulating, and as the evidence increases, the faith of the afflicted enlarges and trials are made, so that proof becomes obtainable from various sources supremely favorable to its adoption. The demand for the practitioners of this science is more than the supply, and thousands of places are offering opportunities to show their appreciation of a system of healing their diseases without medication from drug-doctors. The great difficulty to overcome is the prejudice of the people whose education along the lines of medical practice has moulded their habits into a particular form, and investigation denied a hearing, and evidence rejected, so that it is impossible to convince such until force of circumstances compels them to do so. No new truth is at once popular, nor does it ever find a lodgment in the public mind at once.

Osteopathy was practiced many years before it was

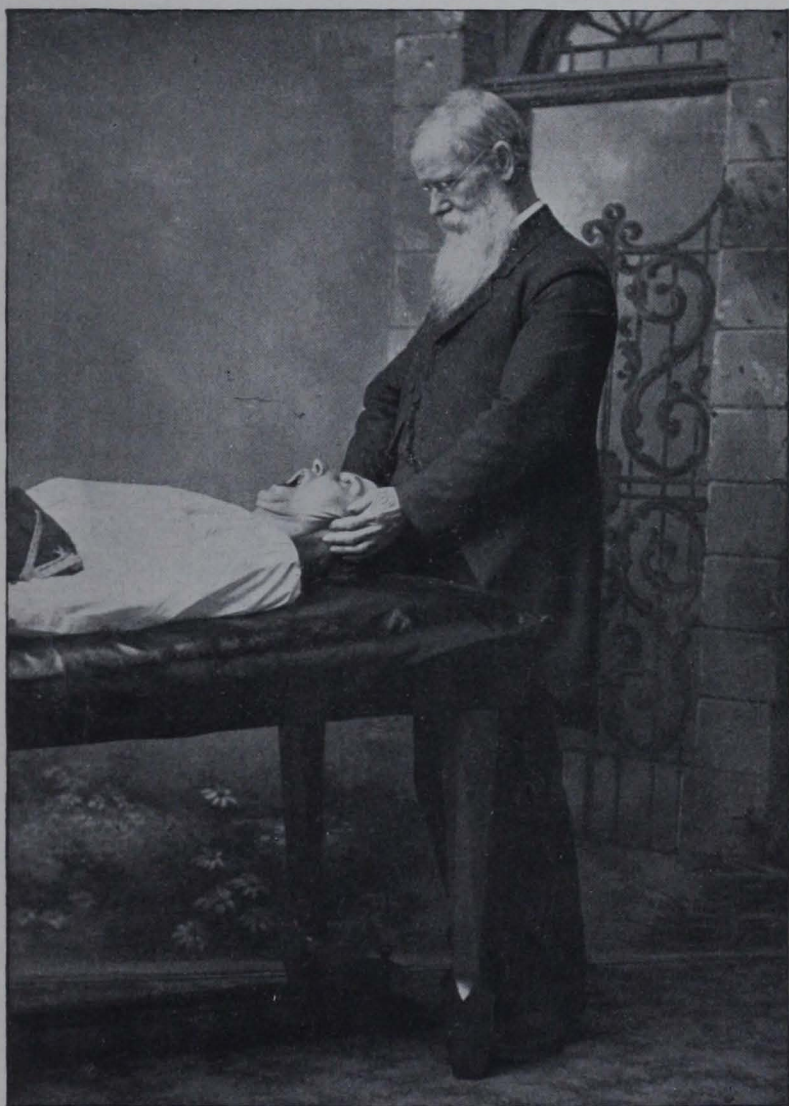
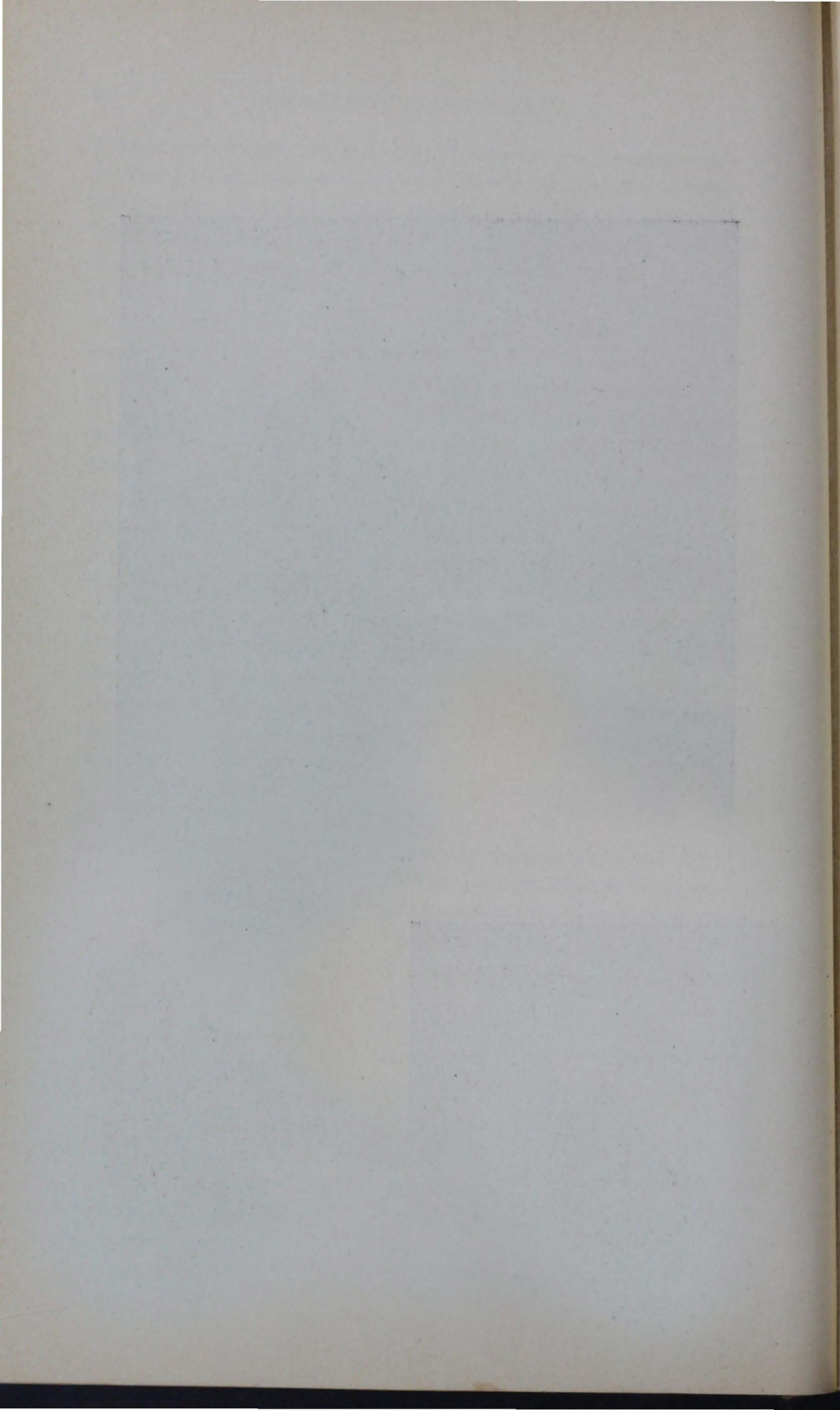


PLATE V.—Angle of Jaw Movement.



known in the small section of the country where it was born. Any great truth is difficult to find adherents readily. This being sought for and demanded, will be hailed with delight when once investigated. This is being done with wonderful rapidity and avidity, as its effects are seen and experienced.

THE RESPIRATORY PROCESS—MECHANISM OF.

There are two stages of this process. The one is termed *inhalation*, the other *exhalation*. The one is the receiving of air into the lungs, and the other is expelling it. These are both performed by the action of the chest muscles. To study the composition of air inhaled, and the changes resulting in the air while it is being drawn into the lungs and passing through the air cells in the lungs, and to note its changed condition as it passes out of the lungs, the reader is referred to works on physiology, as a description of the physiology of the human system is not the province of this volume. We have to do with the mechanism of the process of respiration. The muscular system arranged around the chest is peculiarly adapted to this process, and by expansion and contraction of the muscular fibers of these muscles complete control of the quantity of atmosphere is had. The respiratory process is performed very largely by the exercise of the will, especially the quantity of air received in the lungs in the act of inspiration. Many persons live on a limited amount of air, while others exercise almost, if not quite, the full capacity of their breathing apparatus.

That the proper use of all of the capacity of the breathing apparatus be made, the very nature of the structure of the human body would at once admit, but there are so many who do not recognize the importance of breathing, that never do use all of the lungs, it is strange that more people are not sick than there are. Every drop of the blood that circulates through the human body, to be healthy, must have oxygen, and no other way being provided for oxygenation (except

through the skin) of this fluid except as it passes through the capillaries in the lungs, it becomes a matter of vital interest to afford opportunity to use all of the capacity provided for breathing or inhaling the purifying material, oxygen. The proper appreciation of this process of nature's method of "purifying the blood" would do away with the idea of medicine "*purifying blood*" (a thing it has no adaptation to do, and never did nor can do), and a universal use of the proper means provided to purify the blood would not only prevent, but cure, many diseases that already exist. Breathing is a *necessity* to life in the body, hence *important*. The part that oxygen plays in the body should not be lost sight of. If there is nothing the matter with the lungs, and a proper condition of the muscular system that controls the action of the chest exists, there can be no reason why all of the lungs should not be used. The necessity of it becomes apparent when it is understood that this is the means provided to oxygenate the blood. How this purification is brought about, we understand, is by an exchange of gases as the blood passes through the capillaries of the lungs on the sides, through the connective tissue (in the capillaries of the lungs). The oxygen is admitted and the carbonic-oxide is exhaled. It may be readily seen that, in case a part of the lungs is not filled with air, there can not take place that exchange of gases, and in consequence, the blood that should be purified by oxygenation fails to receive any oxygen, and passes back through the pulmonary veins as impure blood, and the arterial blood that nature designed to be pure—fitted especially to renew the waste that is constantly going on in all parts of the body, and needs new, pure material to supply—has to put up with this half-purified substance, and the result is seen in poor health. What else could be reasonably expected? The importance of breathing should never be lost sight of. The essentiality of pure blood should receive greater consideration than many are wont to give it, if continued good health or a return to health be a desideratum. From this storehouse of purified

blood every part of this complicated house we live in is rebuilt. Every tissue is made up from the substances drawn from the blood, and if the material from which the tissue is made be deficient, the tissue itself must necessarily be. That state of the blood called *pure* we understand to be a state brought about by a giving out of the *carbonic-oxide*, and the reception of oxygen. It will be remembered that as the blood passes through the capillaries at the ends of the arterioles, certain elements are given up; these elements supply the parts, and the residue passes on into the venoles, and the waste material in the locality of the capillaries is converted into fluid or gas, and passes into the lymphatics and thence into the small tubes called venoles, to mix with the unused elements of the arterial blood, and this mixture is carried back to the heart, the right side, thence thrown on into the lungs. The poisonous elements are here rearranged, rejuvenated, and all this takes place as the blood passes through the lung capillaries. In the one instance (at the ends of the arterioles) there is a giving-out process of elements, and at the other end (in the lung capillaries) there is a receiving, as well as a giving-up, process. Now this blood that is made over in the lungs, remember, is our precious material, by which we are to be renewed and kept healthy, to be drawn from. Nature has made this especial provision, and she accepts no other means. She makes and keeps pure all her supplies at all times, watching over every part of every element and tissue in our body by a great system of nerves called the sympathetic, that never slumber nor sleep while we live. To interfere with her marvelous processes always results in confusion in every department of the wonderful structure called the human body.

Starting back from the lungs, this blood should contain every element necessary to the uses intended, and if it has these elements, perfect harmony is maintained, and no unnatural changes occur in any portion of the body, but perfection characterizes the whole process of tissue building, removal

of waste material; harmony reigns, and the body experiences neither pain nor disturbance. But let there be interference anywhere in the harmony of this perfect process, changes occur, disturbance disarranges the molecular relationships of the normal elements, confusion starts, and the order being changed, the whole system feels the shock and the sympathy begins—disease is what we term the result. To cure this disease we must restore the harmony.

We should begin at the starting place to restore harmony, and we conclude that the beginning place is in the blood-manufacturing and purification department—the one to first consider. It is said that “the life is in the blood,” and if so, that fluid must contain the elements of life. These, we have been informed by physiologists, contain sixteen elements. During the process of gestation the foetus derives all these elements from the blood of its mother through the foetal circulatory process. We start with a human being already made, possessing life with all of its elements.

To maintain the normal arrangement it is a demonstrated proposition, that, as soon as the new relationship begins, air is the first essential to start the respiratory process. This must be maintained during the life of the being. The air contains properties that start expansion. It possesses substance or substances that fill spaces in the structure of the body called lung tissue, arranged in the form of six-sided cells, at the ends of tubes, through which air is admitted and fills these cavities, which, it is said, number many millions; and these cells are so constructed that air passes directly through their walls into the fluid that circulates between them in their walls, and the changes from one state to another ensue at once—in the capillaries. Whether this is done in the lungs or in the skin of the body, it is essential to the purification of the blood, and the renovation of it so that the tissue elements shall be in it when it starts on its mission of distribution from the lungs through the heart (its left side), thence through the arteries into the various parts of the body.

This newly-formed blood furnishes material that supplies the glandular system, and as it circulates therein the sympathetic nervous system directing the action of the secretory apparatus of the gland in such a way as to manufacture just such material as is needed in the particular locality of the gland, and for the uses to which it is appropriate. In the salivary glands a secretion is directed to the mucous membrane of the fauces, for the moistening of the food during mastication. This is the first step in the process of use of secretion in the digestive system, and this secretion, be it remembered, is drawn from the blood. The next step in the preparation of the food for digestion takes place in the stomach, and there another sort of secretions is manufactured, and one of these furnishes the cardiac end with the material for the mixture of the food in that part, called peptic (manufactured by the peptic glands), and the other set, called the pyloric glands, add their secretion as the food advances toward the duodenum, where a continuation of these pyloric glands seem to merge into what is termed Bruner's glands. These secretions, it will be understood, all come from the blood, and are secreted by and through the direct supervision of the sympathetic nervous system. The next step in the process of digestion takes place as the emulsified material passes out of the pyloric end of the stomach into the duodenum, through which passage the pancreatic and hepatic secretions become mixed. We are now ready to watch the process of absorption. The food, up to this point, has been prepared by the admixture of the various secretions for this last step in the process of entering into blood. No elimination has occurred. The products are held in solution—all that will be acted upon by the secretions—and the product is now in a condition to enter the abdominal lymphatic system through the walls of the small intestines, and thence carried through receptacles to the thoracic duct into the general circulation—first being mixed in the current in the subclavian vein on the left side of the upper portion of the chest—thence on into the right side of the

heart—through the right auricle, and thence through the right ventricle into the pulmonary artery, through which into the lungs. We are now back to the starting-point. All of this process has gone on through influences started in the respiratory act by which life is constantly imparted to the blood through *oxygenation* in the *lungs*.

This dissertation explains the whole process of circulation of blood and digestion, starting with the first forces brought into requisition from without—*oxygen*.

THE POSITIVE AND THE NEGATIVE FORCES IN THE HUMAN BODY.

It is evident that two forces exist in the body, or that through the action of the nervous system we have two separate and distinct influences exercised. The one conveys influences to or toward the center, called *afferent*, and the other carrying influences outward, called *efferent* nerves. These terms are alike applicable to *blood* vessels. The two sets of nerves are called *vaso-dilators* and *vaso-constrictors*, originating in the *bulb* of the medulla oblongata. *An irritation or stimulation of the vaso-motor center in the medulla, either directly, indirectly or reflexly*, causes an increase of the blood pressure. This may be done also by stimulating the spinal cord, and by stimulating the vascular area directly by means of altered blood. A decrease of blood pressure may be produced by stimulation of the vaso-motor center in the medulla, either directly, indirectly or reflexly—directly by oxygenation; indirectly by impressions descending from the cerebrum (*e. g.*, as in blushing), and reflexly by stimulation of the *depressor* nerve, and consequently dilatation of vessels in the splanchnic area, and producing inhibition of the center by stimulation of other sensory nerves; by stimulation of the spinal cord, possibly directly, indirectly and reflexly; by stimulation of each vascular area directly (*e. g.*, by means of altered blood, or heat). Any increase of press-

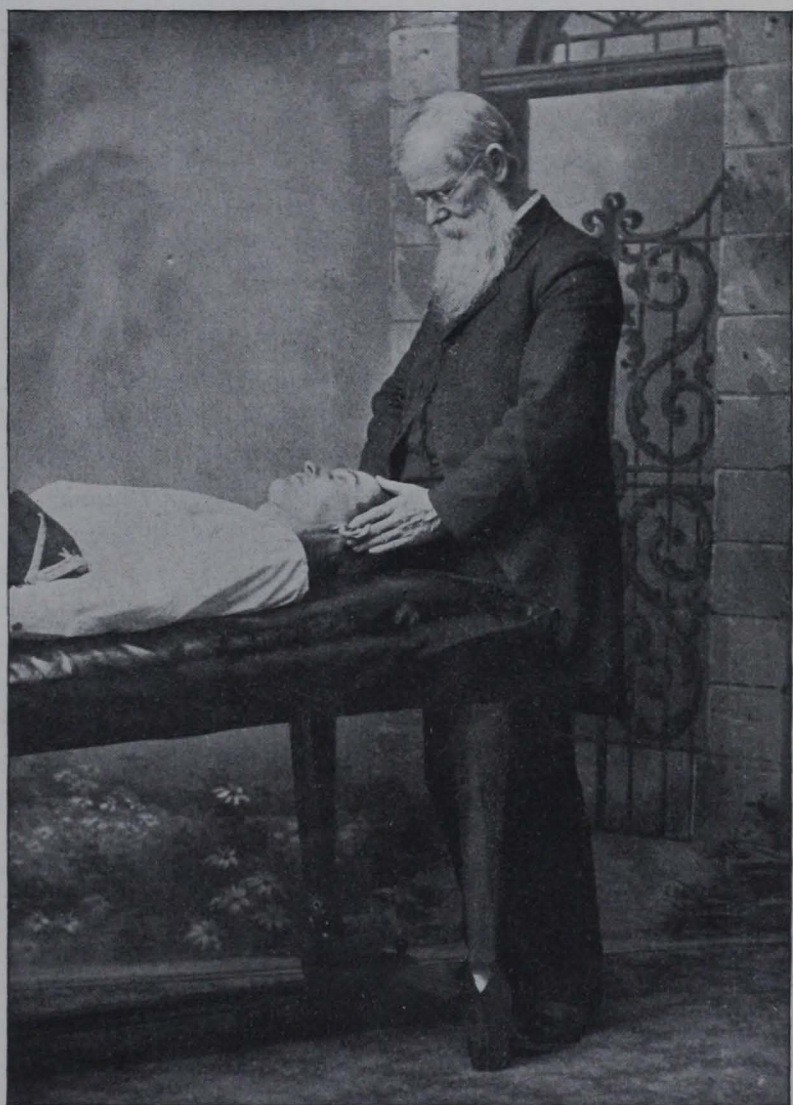
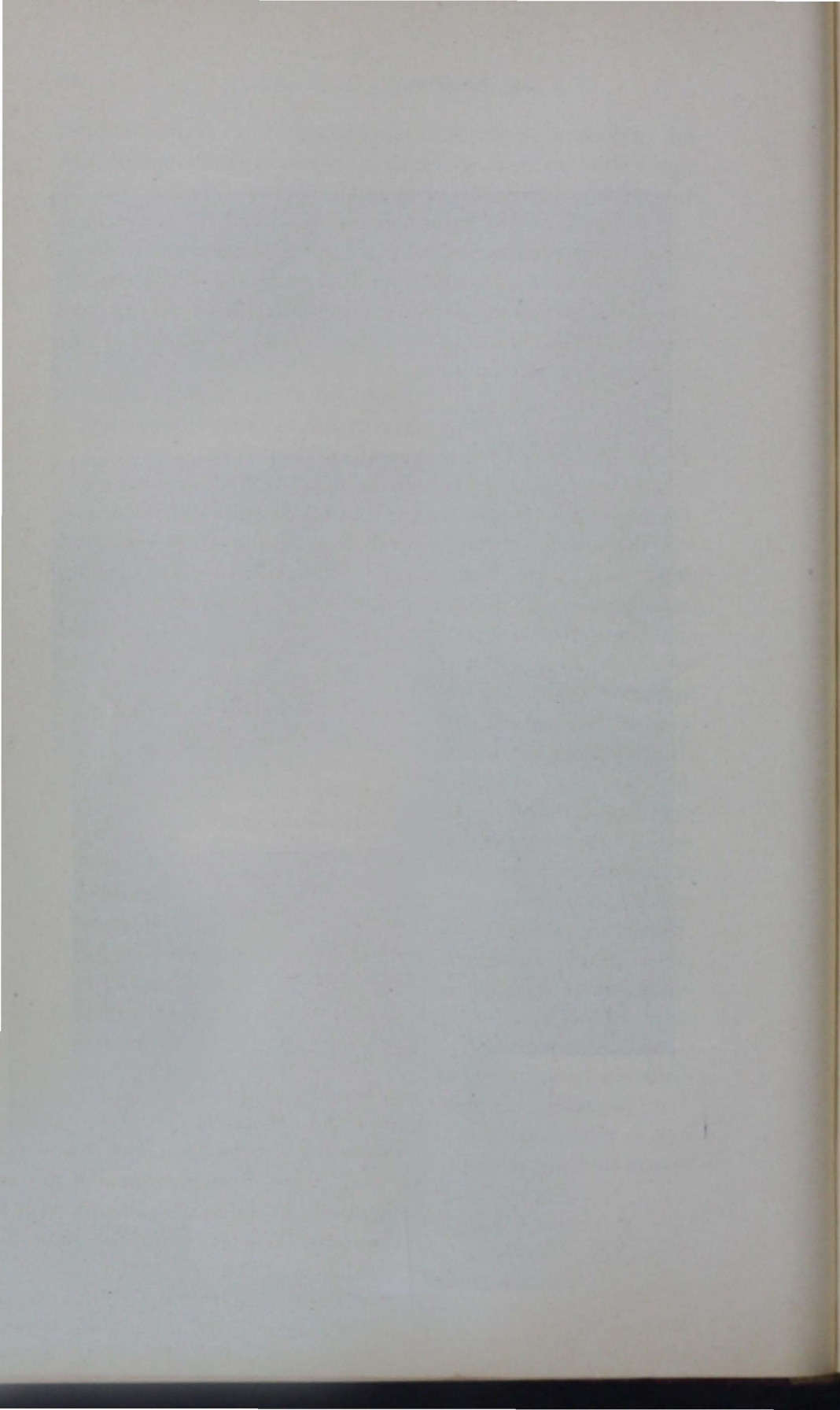


PLATE VI.*a*.—Treatment of the Ears.



ure from whatever cause, whether from direct changes in the blood itself or decrease of central power, has its influence directly or reflexly on the circulation.

Independent of these two influences obtained through the nervous system, we have a *positive* and a *negative* force brought to bear, and which produce a change in the character of the secretions according to the positive or negative influence brought to bear by the special manipulations or degree of pressure on a part of the body.

THE SCIENCE AS IT IS AT THE PRESENT DATE.

There have been no new nerve centers discovered, no new tissue has been formed, and only a different way of affecting the system through nerve filaments. We would not detract one laurel from the brow of the assumed founder of this method of healing. We can not concede to him all that he claims, nor that every time a pathological condition is found, "that it is the result of partial or complete dislocation of a bone." Neither do we indorse the "make-believe" style of "setting a bone" every time some sudden "creak" is heard in manipulations. That there are new ways of adjusting luxations would be naturally expected; but not anything new has been discovered by Dr. Still, except that the system, through peculiar though natural manipulations, over nerve centers and through terminal nerve filaments, should so exercise or produce an influence that would cure disease, or so change the constituents of the blood by increased circulation, and through the increased and uninterrupted flow of the fluids reduce the system to a normal state. This we readily admit he has the right to claim. This is a grand one, and this is what we are endeavoring to demonstrate to the readers of this volume.

The science is as easily learned as any other method of treatment, and the marvel of the method will somewhat modify in the minds of the people when properly explained as

found herein. That disease should be caused by interrupted circulation has been a known fact for long years—in fact, since Harvey discovered that the blood circulated. The methods of treatment, although differing from each other in method, have had an eye to the “purification of the blood,” but none seemed to place importance on the manipulatory process (outside of massage, and that ignorantly performed) as a means of scientific restoration to health. Dr. Still lays claim to this discovery, and since a system has evolved from this thought, and formulated manipulations have been adopted, and some localities have been found to be more vulnerable than others, and each has its particular reflex influence on others, centers, etc., the study has been, of late, to systematize the manipulations and the manner of giving them or performing them, that certain physiological results will follow. This has been largely accomplished, and we are largely the “commanders of the situation” as far as disease is concerned. That there are occasionally a bone or bones luxated is readily conceded and adjusted, and results caused thereby changed when adjusted is admitted, but the principles of this science are couched in the “freedom of the circulation of the blood and other fluids of the body.” This accomplished constitutes the sum total of Osteopathy. The blood carries in it the life and the elements which make up the new material; and when permitted to circulate undisturbed a normal state exists, and the nervous system being intact (that is, free from pressure everywhere), the normal functions are performed throughout all parts of the body, and health is the result. To know how to properly adjust the system to itself is to know how to cure disease of all kinds.

THE CONTROLLING INFLUENCES OF CERTAIN LOCALITIES.

That there are certain topographical centers in and on the body that, stimulated, seem to result in wonderful changes, the Osteopath abundantly demonstrates, goes to

prove the possibility of successfully treating diseases without drugs. We submit a few instances. There are certain localities that we term vulnerable points. Take, for instance, the cervical ganglia—the upper portion of the neck; here, when we stimulate the terminal filaments of the vaso-motor nervous system, there results all over the body a slowing up of the arterial circulation of the blood. Here, between the third and fourth cervical vertebrae, we reach filaments that send an influence to the diaphragm, greatly influencing respiration. And we here stimulate recurrent nerves that control the secretion of important glands, that influence muscular and connective tissue in the cervical regions that, left alone, results in the various affections of the throat; and down a little further the spinal accessory is reached, through which the action of the trapezius and the sterno-mastoidei muscles are supplied. From the first to the fourth dorsal we reach important filaments that have much to do in the respiration, inhalation and expiration processes, the treatment of asthma, etc., and are not a small factor in treating lung troubles. At the fourth dorsal it is said that there are nerve filaments that begin the great splanchnic nervous system, which has so much to do in regulating stomach troubles, and through these nerves we reach the stomach, the liver, and in fact all of the vessels that have to do with the negative forces in the abdominal viscera—hence important to know them. The lesser splanchnic seems to be greatly concerned in the treatment of that condition we denominate chills, for it is here at the eighth dorsal that our principal treatment is directed for intermittents. Then, in the lumbar region, at the second vertebra, we regulate the action of the genital organs, starting forces that have lain, perhaps, dormant for months, and that have yielded to no other means or treatment—correcting same in a few hours. Through the lower lumbar and the sacral regions we produce influences that control the pelvis and lower limbs, regulating actions therein that result in relieving the pathological conditions that other systems fail to

affect favorably. Thus we reach the various centers through certain topographic localities not thought of or known of by the general practitioner. The strangest and most unaccountable results imaginable follow these treatments, especially to those who have looked for cures through a regular course of medication! To think of curing flux, diarrhea, chills, asthma, and every other curable disease by the manipulation of the body, stimulating certain localities, strikes the new beholder with such astonishment that it seems incredible! A fair trial is all that is necessary to convince the most skeptical of its verity, and even more *marvelous* results. We intensify this with extreme emphasis. *It is the greatest boon that ever has been offered to the human race for relief and cure of physical ills—acute or chronic—and all people must know of it!*

MISPLACED APPLICATION OF OSTEOPATHY.

The tendency of the *tyro* in Osteopathy is to extol it beyond measure, and endeavor to distort it out of all proportion, and assign it offices not at all adaptable to its particular sphere. The limited judgment seems obscured by the mental obtuseness of the limited intelligence of the would-be scientific dispenser of the science, in his fruitless efforts to apply it to pathological conditions that nothing but the resurrection is applicable to. The *enthusiast* who overestimates his calling and presumes to imagine that his horizon is all there is, soon becomes burdened with its limited environments, and knowing only *his* landmarks, fails to see the unlimited resources of the great world around his little sphere, and is sooner or later engulfed in fathomless depths, and lost in the great labyrinthian regions that revolve around him. If we could be convinced that *we* are the *great cosmos*, the culmination of intelligence emanating from a *divine mind*, and that *mind* permeates and controls every atom in every tissue in the body, our thoughts would be occupied in learning how

to harmonize the various elements so that a continuance of this harmony might be kept up.

That there is a way to approach the citadel of thought, enwrapped in flesh and integument, experience demonstrates to be true; for the avenues are so numerous that it would require almost eight years to count them, one by one, eight hours a day and fifty a minute! Every one of these avenues have numerous terminal filaments of nerves permeating all sides of them, and each impression made on any part of these tubes, these nerve filaments convey it to the brain, formulate it into an idea, and that is directed to the citadel of thought, takes form, and brought into use as occasion demands, carrying into execution as needed afterwards, to continue the harmony of every other part of the body. These thoughts thus formed, constitute the world of thought that is conveyed through these small tubes, called nerves, that control, direct and care for every atom that moves in the channels of this *marvelous cosmos*—the human body. To keep up the harmony throughout, and all the time, constitutes the philosophy and the intelligence couched in the science called Osteopathy. Wonderful discovery! This whole frame of ours in every part is made up of marvelously constructed tubes. Every tube, including the nerves, is controlled by the sympathetic nervous system, and execution of the will, whether we are cognizant of it or not, is performed by the motor system of nerves—these being the executors of will-power conveyed through the sympathetic nerves. Sensitive nerves are also servants of the sympathetic, pealing forth their howlings and complaints whenever impinged upon too strongly. Everything acting in perfect harmony throughout this organism of ours, life flows on like a peaceful river; but when encroachments crowd, when interference of this harmony is made, confusion begins; the rallying of the forces takes place; increased effort ensues, too much pressure changes the forces, change of tactics occurs, chemical action

ensues, and new relationships cause the whole system to sympathize, disease results—Pathology.

AN INTELLIGENT APPRECIATION OF THE SCIENCE.

That there are certain "buttons" to touch to produce results called cures, many are disposed to believe; but that this is fallacious, and only intended to cover up ignorance, will be apparent to any intelligent physiologist. That certain localities are what we call vulnerable points, is conceded, but that these control the whole organism, we are not ready to believe. That contraction of muscular fiber pressing upon nerves or blood vessels influences their functions, we know to be the fact, and that nerve action takes place at their *ends* we also concede, but that touching certain nerve centers, as is claimed (a thing that is not done), produces results at their ends, when a sufficient pressure along the lines of these nerves is made to cut off communication, we most emphatically repudiate as a notorious misrepresentation of the real facts. Pressure along the course of nerves controlling certain tissue, sufficiently hard to interfere with the function of that nerve, produces disturbance of circulation of the fluids at the said terminal; separation of motor and sympathetic footlets ensues, and as a consequence, an increase of fluids takes place, pressure is thereby increased, and surrounding tissues are involved, a further increase of the disturbance goes on, and thus disorganization, decomposition, chemical changes occur; inflammation results.

To endeavor to describe to the intelligent Osteopath any particular movement to be made in all cases, would be like the routine prescription of the country practitioner, or the old Thomsonian physician who, when he had given his six remedies, and patient not cured or dead, would *repeat* the same. The science of this system dwells in the realm of reason, and while the former patient might have been relieved by this or the other particular move, it does not follow that

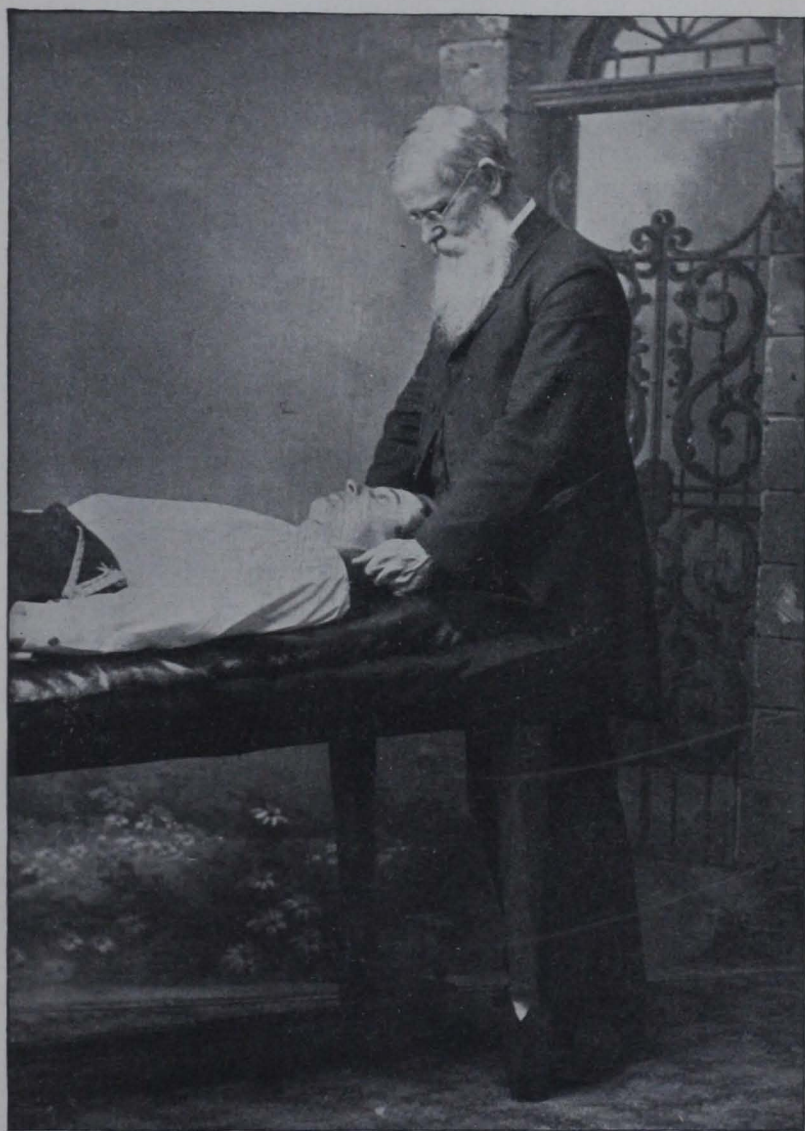
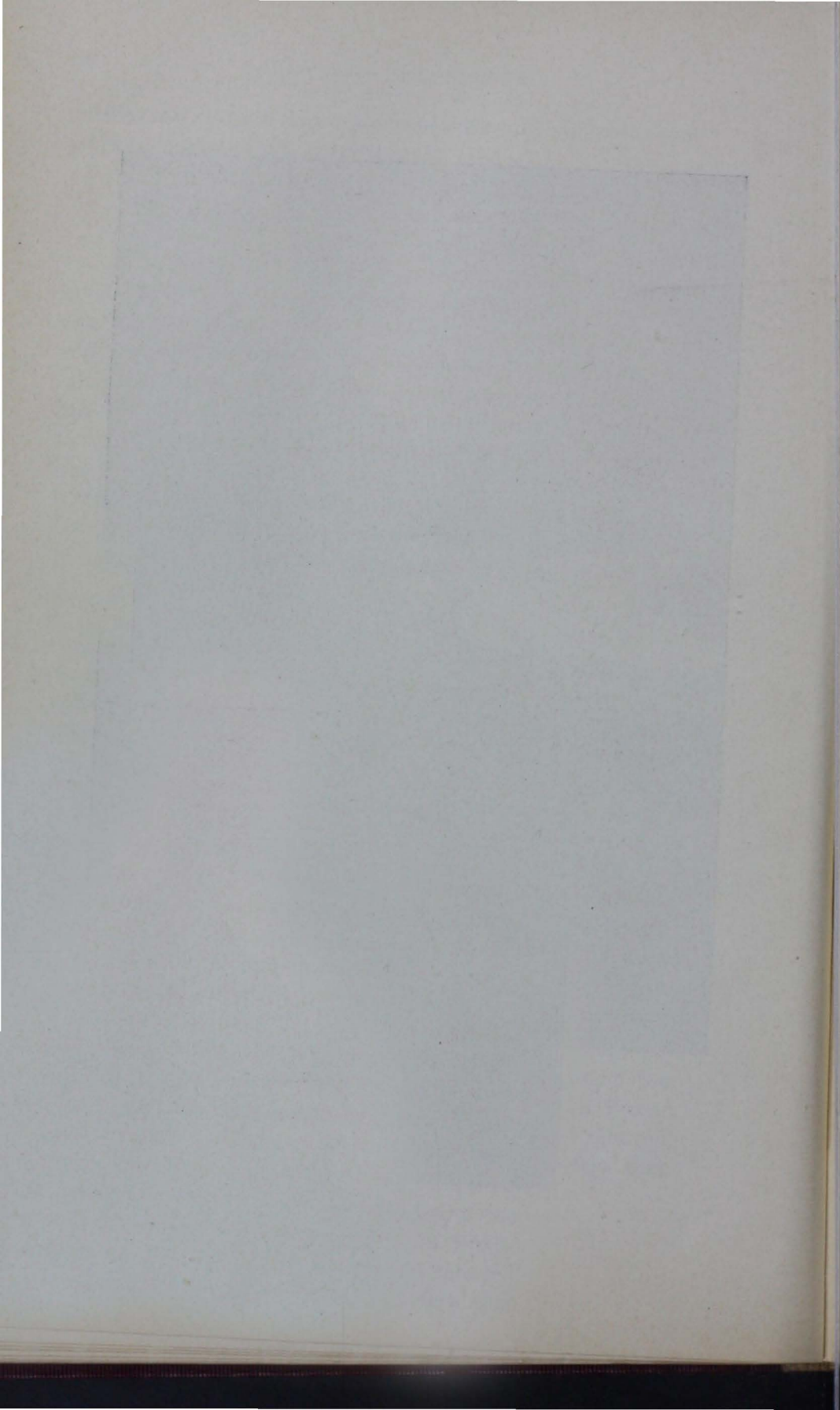


PLATE VI. *b*.—Ear Extension Backward.



the same one should be practiced on each and every other. The movements, to the looker-on, seem exactly the same, but there is a difference, according to the necessity of the case, coupled with the intelligence of the operator. If there be diphtheria in one case and erysipelas in another, the neck muscles are manipulated seemingly alike—and necessity in a given case may demand it, but not necessarily. The same muscles may not be involved, and yet may be; but there may be complications in the one not in the other, so that in all cases it should be understood that each particular affection requires particular stress paid to it. The forces brought into action by the various manipulations bring about wonderful changes, depending largely upon the nerves involved, and how applied.

The specific results contemplated in all manipulations should be to take off the pressure, so that a free flow of the fluids through normal channels is effected—then restoration to a normal condition universally results; normal chemical changes go on, waste material is dissolved, eliminated, new tissue replaces the old, nerve forces established, and in the large majority of instances, health is restored, or started to be restored—thus, if pressure is kept off, pathological conditions cease. *This* state of affairs may have resisted all other known agencies, yet this always succeeds.

ADAPTABILITY A PREREQUISITE TO SUCCESS.

Many who study the philosophy of this science may understand it, how it ought to be applied, and yet be wholly unfit to practice it upon any one on account of mechanical inefficiency, awkwardness, clumsiness. Such individuals make failures, where one less intelligent as to the understanding of the science or the anatomy of the human system, its physiology or pathological conditions, excels. Such individuals need a manipulator. Too much stress can not be placed upon adaptability, and then a thorough course in the

training department of that branch of education called movements—manipulations—and the *how* to apply them. Hence *applied Osteopathy* means a great deal. The failures are on account of deficiency here, in the large majority of instances, and yet I would not undervalue a thorough knowledge of the human system in health as well as disease.

There are certain insignificant pretenders who would make-believe that certain fumbling movements, twitting the body with finger ends, have special effects, marvelous in consequences; they are too insignificantly contemptible to deserve only the mentioning to expose their ridiculousness. Osteopathy, understood, is a great big, reasonable, sensible, large, ideal method of relieving suffering humanity, and not a lilliputian, spiritualistic, massage, mental science or *Christian Science* imagination. It is *strictly demonstrable*, comprehensible, *rational*; standing out in bold relief, unquestionably effectual, satisfactory wherever known and properly applied. Because ignorant pretenders use it, practice it, should be no argument against its value, significance and worth, for what science has not been abused by mere pretenders and unqualified shysters? Who, in the learned medical ranks, has not witnessed such in every age? We insist that intelligence and adaptability are prerequisites to a proper application of this science, and added to these the *mechanical* skill of the manipulator, you have the results desired. We would further emphasize the fact that physical strength is not altogether a prerequisite to the application of the science of Osteopathy, for there are many now successfully practicing this science who are not strong physically. It is remarkable how the strength of the operator increases as practice in the manipulations is repeated. The strength seems to increase with the practice, not only in the doctor, but in the manipulated. This science benefits every one to whom it is applied. What other system of healing can this be truly said of? (outside of financial considerations, and then only one side gets the benefit—and often neither one.) The community may get rid of the

subject, which sometimes is a source of great benefit. This is applicable to medical action usually. Unbridled ignorance is capable of doing much harm along lines where life is involved, hence it is better to use a science that is harmless, and only good comes of it.

THE PEOPLE DEMAND AN INTELLIGENT REASON FOR A
THING.

The confusion existing in the minds of pathologists, as well as physiologists, about the blood, its circulation, how it is formed, what it is when formed, shape and size of corpuscles (if there are any), seems to be as far from settlement as the poles, and what is asserted and written about this fluid goes to prove that it is not understood.

The nervous systems are alike little understood, hence much of the pathology is only hypothesis, not understood, and the whole remedial system from the first deviation from a normal, through all the various stages of pathological changes that end *in articulo mortis, veritas*. Along a course of forty years of close and persistent observation, it has been my lot to learn that, strictly speaking, medical knowledge is largely surface, and that largely imaginary. The secret source of life has not been discovered, and the search has been an ineffectual one, resulting in utter disappointment by the most ardent thinkers along down the ages. All for the reason that search has been made in the wrong direction—not where it is, but on barren deserts, lonely valleys, blood-curdling rocky heights, in dark caves, offensive cess-pools; and in the mad chase found nothing but a bacteria, an innocent bug, as a cause of disease, and utterly failed to find the source of life, or the means to sustain it. A signal and utter failure! These searchers have sought in vain, because they sought in the wrong places—the *causa morbi* being in the body itself—pressure, impediment in circulation, caused by undue pressure. This question solved, and the means of

removing it, lets in a flood of light that has never dawned upon the medical profession up to this blessed hour. It will be a revelation to those who open their eyes to the facts and see. That a systematic course of manipulations by an individual competent to make them, properly apply them to a person diseased, so changes the whole person that disease or pain subsides, is the hardest thing for some people to believe of anything imaginable. Manipulations have usually been relegated to the massagist as a sort of rubbing process, serving as an *adjuvant* in the cure of diseases—a sort of accompaniment of medication, to increase its action somehow or other, and to either amuse or in some manner aid in ameliorating the condition, neither understood by the doctor nor the manipulator, but applied as a sort of excuse for *doing something* to satisfy the patient. The facts are, much has been done that way to suffering humanity, and all of the various so-called means and remedies used to cure the sick have been suppositions, rather than intelligent knowledge of either the thing used or the cause to be removed. Jargon, confusion, ignorance, presumption, and experimentation have characterized the most of the means used in the treatment of the sick. To present to the reader and the profession something tangible, reasonable, something that may be relied upon, is the object of this treatise. To understand this philosophy and the proper manipulations, panoplies the possessor with the most certain means ever presented to the world.

THE FORMATION OF MATERIAL FROM THE FOOD INTO BLOOD.

There are physiological deductions as regards the formation of the various tissues, the office of the glandular systems, and how the various parts of the body are formed. There are certain functions that each and every gland performs, and from observation we perceive that it is the province of each and every gland to generate a specific secretion, and that this

secretion has a special mission to perform in the human economy. That there is a specially arranged structure that each has, and that in the meshes of these special structures lies the official power, seems rather far-fetched, in consideration of the functions of the sympathetic nervous system. As each stage in the process of formation, elimination, etc., proceeds, from the first introduction of food into the mouth to the final metabolism of that product, we find special functions performed in the various departments exactly suited to each in the physical economy. Notice now, if you please, how we account for the whole procedure, and we opine that much light regarding the nervous system will have been thrown into the workings of each department of the house we live in. Our theory is, that through the special direction of the sympathetic nervous system, executed by the motor nervous system, each particular element is separated or drawn from the blood, in the various tubes through which the fluids pass, and that because of its knowledge of how much of this, and how much of that element is needed in each particular locality, the same is ordered to be drawn from the body of the blood, and either deposited there, or converted into other or new compounds by chemical affinity; and if the renewal is to be made, the elements are placed wherever needed; and if waste material is to be carried out, it is done; if special compounds are to be used in a particular gland, it is made there as needed, by the chemical, physiological law inherent in the physical organism. That when no obstruction is interfering with the normal circulation of the fluids, and there is no unnatural pressure on the nervous system each and every part of the physical organism undergoes the normal processes of tissue change and elimination. The nervous system selects from, or manufactures in the salivary glands the kind of secretion during the process of mastication that is essential to the preparation of the food for the next step in the process of digestion; and when the bolus has reached that department called the stomach, another kind of secretion ushers in and

covers it and mixes with it, and certain changes take place; and then another step is taken, and we find that additional glands are brought into requisition to manufacture certain secretions different from the preceding, and mixed with the former secretions, with and in the food, and that, in consequence, another constituent is formed—an ingredient that prepares the contents of the third department—mixture and compound—to be taken up by a set of tubes called lacteals (succors, absorbents), and conveys the fluid part of this compound into larger tubes, called receptacles, and then it is conveyed through a duct, called the thoracic, into the subclavian vein; thence it goes to the heart; from thence it is conveyed into the lungs. Up to this point we have had accession after accession all along the line, from the time the food was introduced into the mouth until it lands in the heart—not only the new material, with the various kinds of secretions, but the waste material from every tissue in the body. The interesting part of this work is before us, and we now proceed to follow this fluid on its rounds through its meandering course, watching each particular element as it is directed and controlled by the nervous system until we shall have seen it again in the capillaries of the lungs, where we left it. It will be remembered that the sympathetic nervous system is the chief factor in this locality (the vagus supplying the lungs), and here is the workshop, where the beginning of all the tissues in the body are manufactured, a reinforcement and a renewal of the *elements* begin, and it is here that the sifting-out process takes place—the exchanges occur—oxygenation begins—the incineration of waste material and the elimination of carbonic oxide take place. It will be remembered that there are over seventy-six millions of small cubic cavities in the lungs, and that they are separated from each other (and yet all connected with each other) by a thin membrane; or, rather, two membranes, and that between each *air cell* there are small tubes through which the blood passes—not in the cell, but on and in the membranes of the sides; and these are denomi-

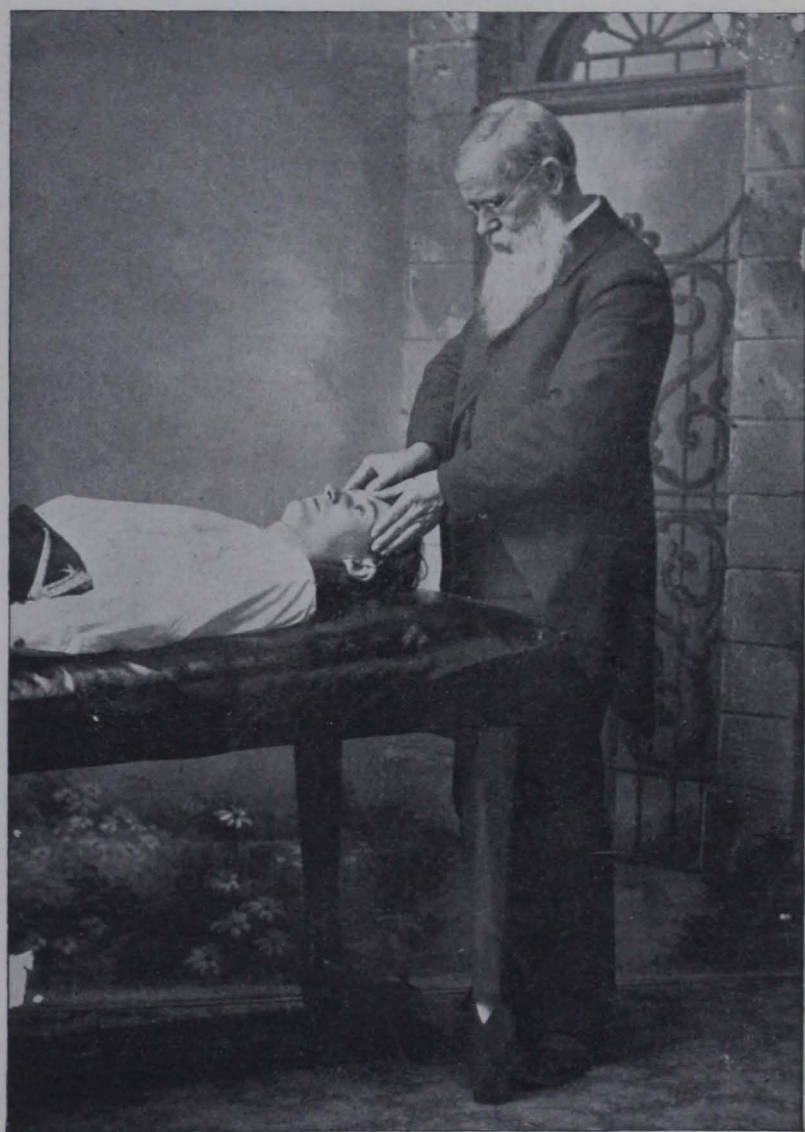
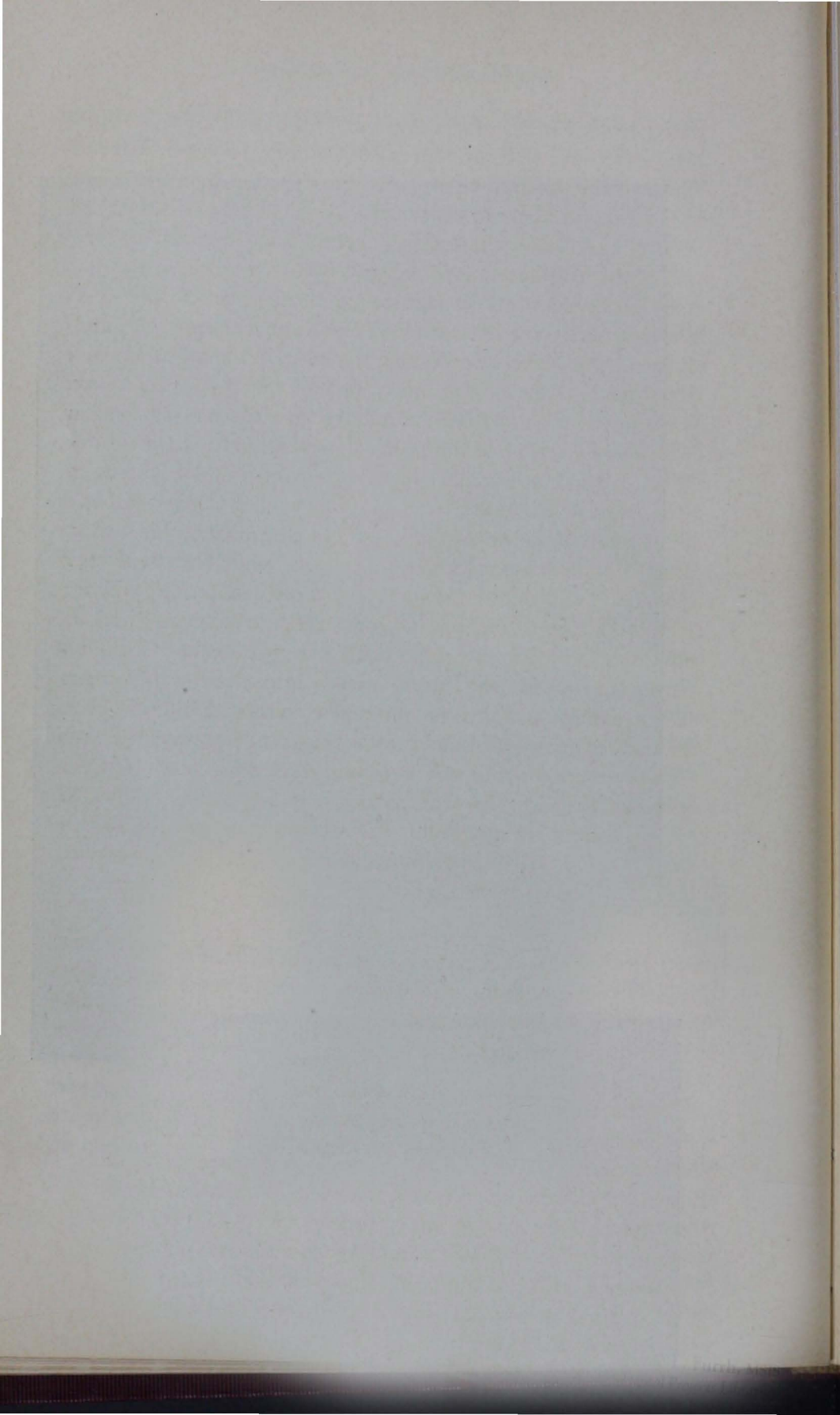


PLATE VII.—Vibration of Temples and Forehead.



nated the *air cells*. Into these cells the air rushes at every inhalation, and by a process called *endosmose* oxygen is forced through the walls of these cells, on all sides, into the blood, as it circulates around these cells, oxygenates the blood, and at each exhalation the carbonic oxide is thrown off, the venous blood converted into *arterial* blood, and then, through the vessels called pulmonary veins, carried back to the heart, where it enters the left auricle of the heart as *pure blood*, ready to start on its mission to renew the waste material of the general system. From the left ventricle the blood enters the aorta, from which arterial trunks receive the blood, carrying it to every portion of the body. As the blood is ushered on through these tubes out into the various trunks leading to every part of the body, a change in the size of these tubes is perceptibly observable—the tubes become smaller and smaller until they become microscopic in size, when they lose their outside coating in the tissue, and become capillaries. Here is where the interesting part of our science concentrates, and the effects of our system are so brilliantly manifested. As the warm, pure, vitalized blood passes into these small tubes, whose caliber is said to be about one-thirty-two hundredth of an inch in diameter—the connecting link between the ends of the arterioles and the beginnings of the veins—there is given off through the walls of these capillaries from the blood, as it passes through them, the various elements needed to supply the waste in that immediate vicinity, and the remnant passes on through the capillaries into the venules as refuse, or degenerated blood.

We are loathe to believe that the *blood corpuscles* pass out through the walls of the capillaries en masse, as some physiologists affirm, for this would render confusion in the parts, and produce chemical changes that would necessarily be destructive to the tissue into which the said corpuscle entered; for please to bear in mind the fact that this corpuscle contains *all* of the elements necessary (if normal) for building up every tissue in the body, and it is evident that there is not,

in the locality of these capillaries, a complete metamorphosis having occurred, consequently there is no necessity of all of the elements in the corpuscle being deposited there, simply to engender in the part excessive chemical changes to prepare these various elements for elimination.

Now, if the reader will patiently follow us through this seemingly labyrinthian maze that has so beclouded and bewildered the physiologist, we shall try to make the matter understood—how the body is renewed day by day, and the waste material is disposed of. The process is interesting, in that it involves the whole matter of *life* and *death*.

It will be remembered that the circulation of the blood in the *arteries* is dependent upon the *nervous system*. This system is supposed to be the *vaso-motor*, that controls the peristalsis, by its influence in the muscular walls of the blood vessels—from the large orifices of the heart to the ultimate ramifications of the smaller twigs of the arterioles. Now, as each blood corpuscle enters the capillary, containing as it does the elements of nutrition, the sympathetic nerve filaments ending in the capillary direct the kind of element needed in that particular locality, and the quantity to be drawn therefrom, and this is done, and here, by the universal law of chemical affinity. This, or these elements, unite with other elements already there, outside of the capillary, and through contact change the structure as demanded—right there, passing the gas or fluids that are produced by the change on into the lymphatics, through which the excess or waste passes, entering into the veins, beyond the capillaries, with the refuse, the unused elements, whence it is conveyed back through the veins to the heart, and thence to the lungs, to again be renewed for its next round through these, or other parts of the body. And now, as some of this blood passes into and through certain other renovating apartments—such, for instance, as the kidneys, the skin—a process of elimination takes place. All of these changes take place by a direct communication of *mind* through the sympathetic nerves, to

the motor-end filaments, which execute orders, and the work is done. This, in brief, is the process that is constantly going on in the system, and it is the universal order of every department in the body. The necessity, therefore, of seeing to it that every channel, tube and nerve filament be kept free is apparent to the practitioner, if perfect harmony exists; and if it does not, it is his duty to be wise enough and know enough about the workings of these various departments to see to it that they are set to rights by the proper manipulations that take off the pressure.

THE ELEMENTARY CONSTITUENTS OF THE HUMAN BODY.

In nature we have for the cardinal elements, *Carbon, Hydrogen, Oxygen* and *Nitrogen*. Some one or more of these enter into combination with the food eaten to make up the physical structure we call bone, muscle, cartilage, tendon, etc., and these are so arranged that perfect harmony in a normal condition exists.

In addition to these four cardinal elements we have Sulphur, Phosphorus, Chlorine, Calcium, Sodium, Potassium, Magnesium, Iron, Silicon, Lithium, Manganese, Fluorine. It is said by physiologists that oxygen enters into the fluids of the body in a comparatively free state, either in solution or loosely combined. Nitrogen is found dissolved in the fluids, and hydrogen occurs as a product of decomposition in the alimentary canal.

These sixteen elements are combined in various proportions in the body, and make up the tissues thereof. The simpler bodies are crystalline, as chloride of sodium and urea; the more complex, as albumen, are amorphous. Chloride of soda and urea pass out of the body, after crystallization, through the excretory organs, the albuminoids being better suited to form the solids. They are divided into the following classes: I. Inorganic Compounds; II. Organic Crystalline Salts, or the Urea Group; III. Carbo-Hydrates, or

Sugars; IV. Hydro-Carbons, or Fats and their allies; V. Albuminous, or Proteid Compounds; VI. Albuminoid, or Gelatinous Compounds.

The Inorganic Compounds include water, acids, bases and salts. Water forms about seventy per cent. of the whole body, and is a general solvent, by means of which various materials may be taken into the body as food, or excreted from the body.

Acids consist of—Hydrochloric, which exists free in the gastric juice, and in combination with bases in all the tissues and fluids of the body; Carbonic, with bases in blood, teeth and bones; Phosphoric, in combination with bases, in the bones, teeth, corpuscles, brain, etc.; Sulphuric, with bases in blood, serum and secretions; Hydrofluoric, with bases in bones and teeth; Silicic, with bases in hair and epidermis.

Bases—Sodium, in all tissues and fluids; Potassium, in the muscles, red blood corpuscles, nervous tissues, secretions; Ammonium, sparsely in the gastric juice, urine and saliva; Calcium, in bones and teeth and fluids; Magnesium accompanies lime.

The Organic Crystalline bodies are very numerous, and are found for the most part as the result of the disintegration of albuminous material, and nearly all contain nitrogen. The principal members of this group are urea, uric acid, xanthin, hypoxanthin, hippuric acid, kreatin, kreatinin, lactic acid, lecithin, neurin, cerebrin, leucin, tyrosin and cholesterin.

THE NECESSITY—THE ABSOLUTE ESSENTIALITY OF TISSUE ELEMENTS IN THE BLOOD.

They bear the same relationship to the body as food does. Many an Osteopath has been stranded in his efforts to "set a bone" that was never out, or to adjust a muscle that occupied its proper relationship to the system, and signally failed to relieve some chronic ailment that depended upon a lack of

one or more of these elements that go to make up the material of the house we live in. There are others who fail because of inattention to the habits, environments, etc., of the patient, manner of eating, time of eating, process of mastication, proper mixing of the salivary secretions, condition of the stomach as regards rest, or ability to perform its normal functions, so as to properly prepare the food for intended use. It is a singular fact that healthy blood must have all of the elements in it. The secretions in the mouth coming from the parotid, submaxillary and sublingual glands are necessary to dissolve the food and prepare it for the next step in digestion, as the food itself is to build up the waste that is constantly going on in the body. Here we have the first manifestation of the controlling influences of the sympathetic nervous system—the power to draw from the blood the alkaline secretions that dissolve food. As we descend into the stomach through the œsophagus we see another marvelous change in the character of the secretions—the gastric juices, composed for the most part of hydrochloric acid. The combination of the alkaline secretion from the mouth being mixed here in the stomach, emulsification ensues and the contents of the stomach being thus prepared, passes on into another division of the digestive tract, and there meets with another kind of secretion that is largely alkaline, from the liver and pancreas, and here the change prepares the food for absorption—that is, to be ushered on into other apartments, into channels that lead to receptacles that connect with a duct called thoracic, that carries the chyle up into and through the thorax, on the left side, and empties this compound drawn from the food into the left subclavian vein, through which it enters the heart (the right side of it), from whence it is conveyed to the lungs, in which it is brought in contact with the oxygen—one of the sixteen elements before mentioned, and the only element in nature that purifies blood! This process puts to silence the “Blood Purifiers” so earnestly recommended to be used by medicine vendors. The human system, remember, is a

cosmos of itself, and in the normal state has its exact quantity of elements (in sufficient quantities and exact proportions) to constitute a healthy organization, and when the proper food is introduced at proper times, with the proper environments, it needs no help to perform its normal functions and keep itself in a healthy condition. We maintain, and shall endeavor to show, that disease is an unnatural and acquired state, and that it is due, primarily, to a change in one or more of the molecules of these elements, or a deficiency or change in them. Whether this change is brought about by lack of the proper food or obstruction to the normal circulation, these must be corrected, or disease will follow.

HEAT AND COLD.

The influence of these two opposite phenomena must not be lost sight of in the curriculum of causes of pathological conditions. It is the property of cold to contract and heat to expand muscular textures. These diametrically opposite states are prime factors in the production of many diseases. They influence the character of the changes that take place in the system, of these elements, as well as circulation of the fluids that contain them in solution, and the tissue changes of the organic substances of the various parts of the body.

Pressure sufficient to produce sluggishness in the flow of the blood and other fluids influences change in the nerve cells, or the magnesium, potassium, calcium, sodium and the iron phosphates as well as the potassium chlorides, and results in disturbance of the functions of said nerves. As the nervous system, especially the sympathetic, controls the action of the motor nervous system, regulating the caliber of the arterial system, we can readily see that disturbance must necessarily follow; as it is through healthful conditions of the nervous system all the functions of the body are performed. The various structures being composed of these elements in varying proportions, each exercising special functions in the

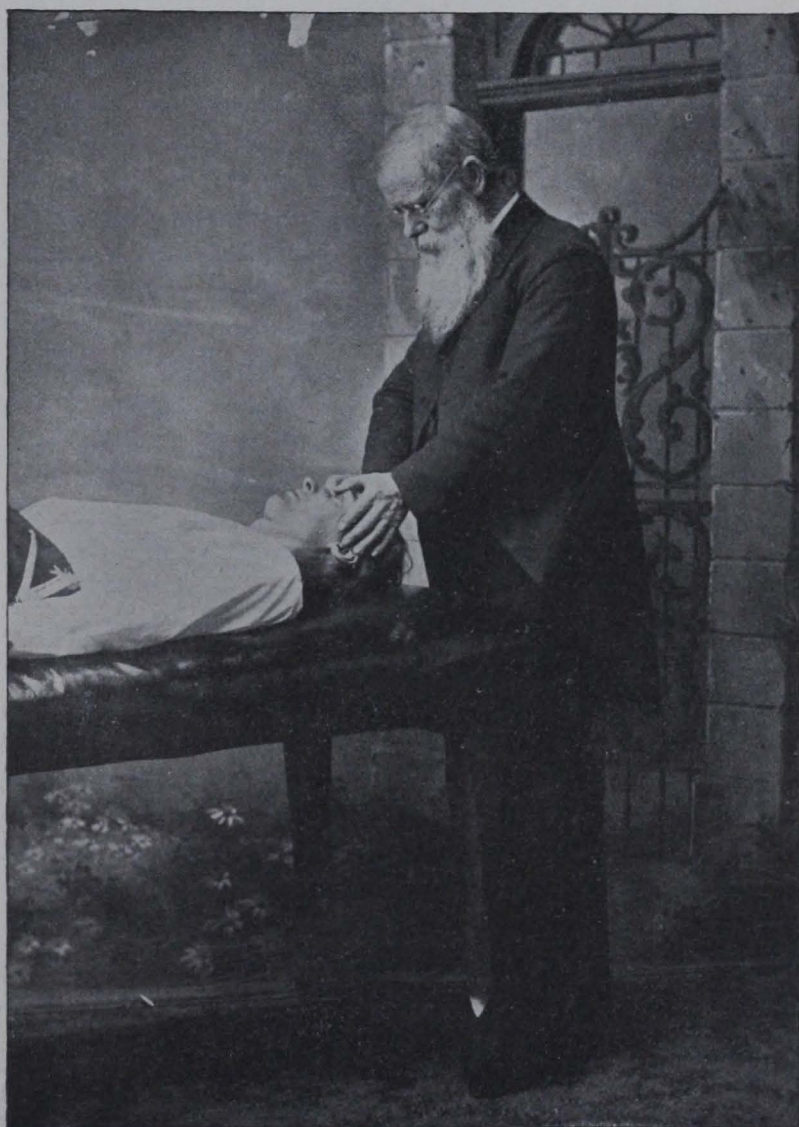
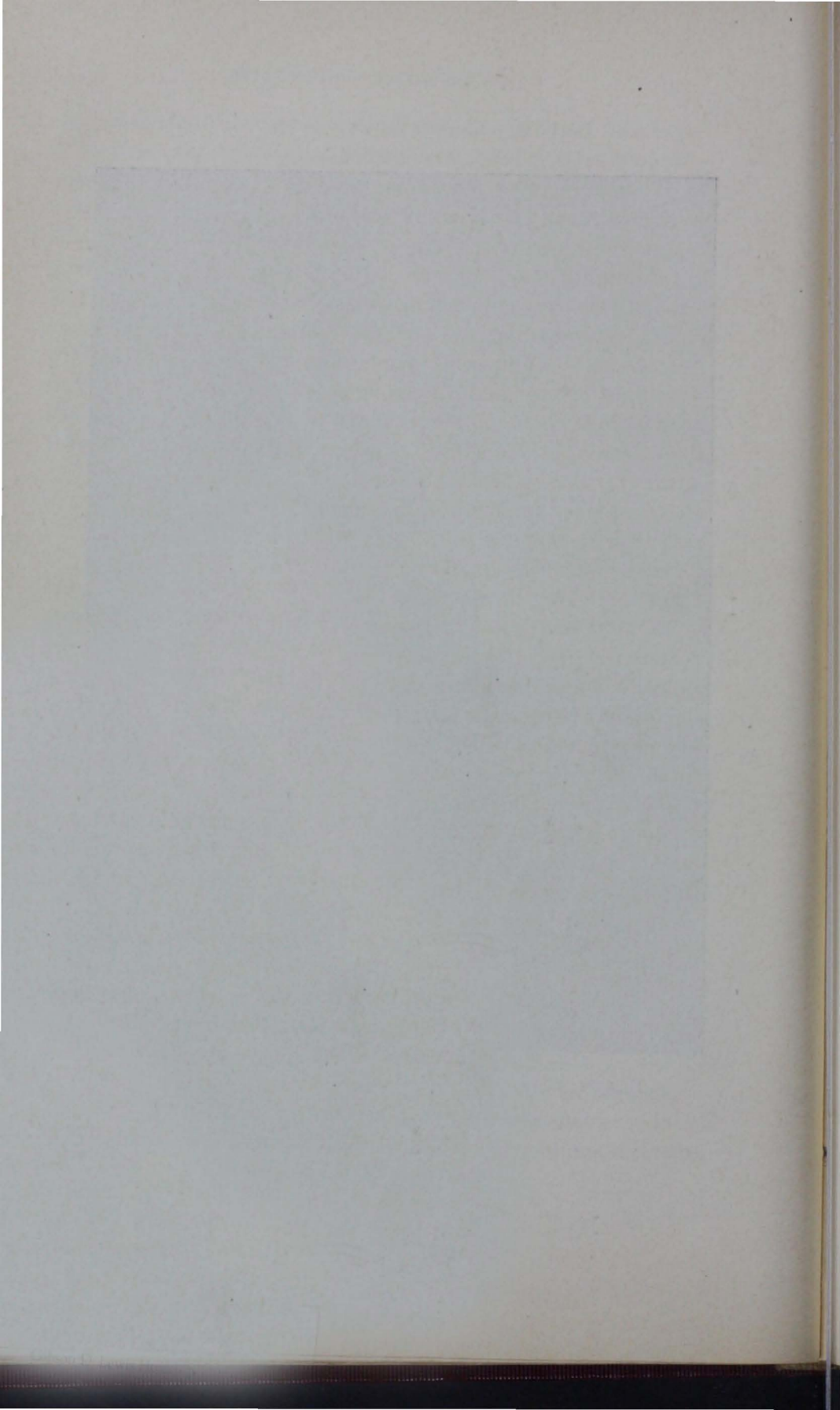


PLATE VIII.—Stimulation of Supraorbital Nerves.



physical economy, is it not reasonable to conclude that each special element has its particular place in the body?

The connective tissue contains silica, calcium, phosphate; in elastic tissue and bone surface we have calcium, fluoride, magnesium, phosphate, and a large proportion of calcium phosphate in bone cells; the latter is also found in muscle, nerve, brain and connective tissue. We have in the brain substance potassium and sodium phosphate. Cartilage and mucous cells contain the specific material, sodium chloride, which also exists in all of the fluids of the body. The hair, nails and skin contain silica, which is also in the connective tissues covering the bones, and with other substances we have in the conjunctiva ferric phosphate. The inter-cellular fluids contain potassium, chloride, sodium and calcium phosphates, and all the sulphates. Potassium sulphates are also present in cells. The carbonates are supposed to be without any influence in the process of new-cell formation.

The process of oxygenation that takes place in the lungs is supposed to act upon the organic substances of the blood, removing impurities, and the products of these changes are the organic materials which form the physical basis of muscle, nerve, connective tissue and mucous substances. Each of these substances is the basis of chemical affinity, and thus new tissue is formed. With the product of new tissue we have, at the same time, the destruction of the old ones, resulting from the action of the oxygen on the organic substances forming their bases. The ultimate results of the union of the oxygen with these organic substances are the formation of urea, uric acid, sulphuric, phosphoric, lactic and carbonic acids and also water. There are many other members of the series, not necessary to mention in this connection, as they are fully detailed in physiology.

Urea, uric acid and sulphuric acid are the result of the oxidation of the albuminous substances, while phosphoric acid is produced by the oxidation of lecithin contained in the nervous tissues, brain, spinal cord and blood corpuscles.

Lactic acid results from the fermentation of milk-sugar, and finally breaks down into carbonic acid and water. Sulphuric and phosphoric acids unite with the bases of the carbonates, forming sulphates, and set free carbonic acid. By means of the presence of sodium phosphate in the system, lactic acid is decomposed into carbonic acid and water. This element has the power or property of holding carbonic acid in combination, fixing it, and does this in the proportion of two parts of carbonic acid to one of phosphoric acid which it contains. This combination is carried to the lungs, and there, by the action of oxygen from the inhaled air, the carbonic acid is set free from its loose union with sodium phosphate, and exchanged for oxygen in the process of exhalation. Uric acid is kept in the blood in solution, by the presence of sodium phosphate, and is eliminated as such by the kidneys. When this acid loses its solubility from lack of sodium phosphate, it combines with the basis of sodium carbonate, and forms urate of sodium, which is insoluble. When this is deposited around joints it gives rise to gout and acute articular rheumatism. Sodium phosphate serves to saponify fats, or probably emulsify them. This salt can also take up albumen, besides the above-named acid. Albumen is said to behave itself like an acid. By reason of the property of taking up albumen the sodium phosphate can carry on resorption of pathogenic deposits of albuminous substances, hence so useful in scrofulous swellings, glandular enlargements, lupus and incipient tuberculosis, etc.

A disturbance of the molecules of sodium sulphate in the inter-cellular fluids may be followed, according to its duration or extent, as well as its location, by a retarded removal of the water of oxidation and dissolved or suspended matters. This implies a consequent liability to bilious vomitings, erysipelas, diabetes, etc.

It is interesting to know that sodium sulphate and sodium chloride act in opposite ways. While the former (the sulphate) removes from the tissues the water, according to

the process just described, the muriate (the common salt) enters the tissues, dissolved in the water from the blood plasma, in order that the requisite degree of moisture proper for each tissue may be maintained. The final products of the organic substances are urea, carbonic acid and water, through the process of oxidation. These, with the salts set free, leave the tissues, and thereby give place to less fully oxidized organic bodies, which in turn finally undergo the same metamorphosis. The products of this retrograde tissue change are conveyed through the lymphatics, the connective tissue and veins to the gall bladder, lungs, kidneys, bladder, and skin, and are thereby removed from the organism with the excretions, such as the urine, perspiration, feces, etc.

The above detailing of the action and uses of these tissue elements are surely worthy our careful consideration if we regard health as essential to our happiness.

THE VALUE OF THE TISSUE ELEMENTS CONSIDERED.

Though these are in no sense medicines, yet their importance will be apparent to the physiologist, to the pathologist, when it is understood that they constitute the entire physical organism, and that without them we could not, as we are, exist. In consideration of this fact, we would invite the attention of the pathologist to the role due them in endeavoring to restore the afflicted to health. Whatever else is indicated in the treatment, these should not be overlooked.

Barring surgery, we are satisfied that due regard to the supplying of these elements when needed, and the proper adjustment of the system to itself, osteopathically, will be sufficient to cure all curable pathological conditions, that are curable at all by any means now known. In Osteopathy we have the means of promoting the circulation of the blood and other fluids of the body in and through their normal channels, and of uniting positive and negative forces which determine the neutralization or the modification of the acids and the

alkalines of the system in their actions in the human body, the adjustment of muscular fiber, bones, tendons, etc., and keeping up a normal circulation of the fluids to and from all parts of the body. The proper coordination of the system with itself means a great deal when it comes to restoration from any and all forms of disease. The addition, the introduction into the system, of the proper elements that are efficient, and the removal of those in excess, surely should be duly considered. These, properly attended to, constitute all that is necessary for any one afflicted with any known pathological condition. This is not only our experience, but seems to be the only rational means necessary to cure our ills. Surgery should have its proper place in the curriculum of remedies, when needed.

It may seem strange to some that we regard medicines as superfluous in the cure of disease, of any sort, name or nature, but upon due consideration of the foregoing there can be but one conclusion, and that is, that they are foreign substances—not needed. If we have everything in the system needed, all of the elements, and the circulation perfect, we do not even need the tissue elements, but in case of disturbance in the circulation of some or all of the fluids, the indications are to take off the pressure. The system has a very unique way of converting its various elements into whatever new ingredient needed, when there are no restrictions placed upon it in the way of undue pressure. The pressure, anywhere, is the thing for the Osteopath to remove, and let nature perform its wonderful processes in its own peculiar way. The how to do this work is the object of this book to explain. This is the gospel of healing.

The different inorganic salts may be classified as follows: Calcium phosphate, Calcium sulphate, Calcium fluoride, Ferric phosphate, Potassium chloride, Potassium phosphate, Potassium sulphate, Magnesium phosphate, Sodium chloride, Sodium phosphate, Sodium sulphate, and Silica. These com-

bine with Carbon, Hydrogen, Oxygen and Nitrogen to form the different elements, and are the essentials of them.

DO NOT CONFOUND THESE ELEMENTS WITH MEDICINES.

The constant changes that go on in the system, bringing to the surface effete matter, to be thrown out through the skin, the large quantity of blood that is flowing into the heart and lungs every breath we breathe, the double capillary action of the liver, the manufacture of the various secretions by the glandular organs of the body, the changes that the blood undergoes in the various capillaries, as it gives off the chemical constituents necessary to supply the waste of tissue in their immediate circle, and then the various degenerative tissue metamorphoses constantly present everywhere, the tearing down and building up of every tissue in the body, constitute phenomena that are indeed marvelous to contemplate; yet all these actions are being performed whether we wake or sleep, and are all made in accordance with perfect precision in every department, provided no obstacles interfere with the circulation of the fluids. The very moment there is interruption, hindrance, sluggishness, stasis anywhere, there are necessarily chemical changes, retrograde metamorphosis ensues, and continues until new material is formed, or breaking down of the tissue results. Hence, the importance of a perfectly free and incessant onward movement of the fluids throughout every department. As the sympathetic nervous system has complete control of every atomic cell, being distributed to each and every tissue, capillary, tube, lymphatic vessel, gland, blood vessel, muscular fiber, etc., throughout the body, and controls and directs motion and sensation, tissue building, elimination, waste and repair, it becomes a matter of no small importance to recognize its freedom from pressure all along the lines of its course from origin to termination. The motor and sensory nerves occupy a secondary or subordinate sphere in the physical economy, being only servants, messengers, as it were,

to carry out or execute orders from the sympathetic nervous system. In our philosophy of the action of the nervous system, we may cross the opinions of established authority, and introduce an entirely new phase regarding the cause of disease, but they who follow me through to a legitimate conclusion, will find that my philosophy must be true, in order to prove the science of Osteopathy to be founded *upon rational principles*. A hap-hazard theory of a science, unscientifically and unreasonably presented, would justly receive condemnation, ridicule and unfavorable criticism, hence our premeditation, long study, experience, practice along these lines to demonstrate every possibility, probability, and show to the reader, in clear and unmistakable terms, that its claims are not only exceedingly and intensely interesting, but practically true.

THE HUMAN SYSTEM AS A MACHINE!

From the foregoing it would seem unfitting to call the human system a machine. That term, originated in ignorance, has been perpetuated in ignorance and used inappropriately in reference to the human body without regard to its components. There is no semblance or resemblance to an inert machine, that has neither sense nor motion—simply moved by mechanical force. This body of ours is a part of Deity itself, “made in the image of God,” “a little lower than the angels, crowned with glory and honor.” The Ruler over all things terrestrial, everything subject to him. Machine, eh?

FREEDOM OF CIRCULATION ESSENTIAL.

The freedom of the circulation of the blood and other fluids is essential to the health of the body, or its restoration when diseased.

The normal circulation may be defined as that condition which is natural. The blood is usually recognized as the circulating fluid in the body throughout the arterial, venous and capillary systems, furnishing every part with life (for it is said

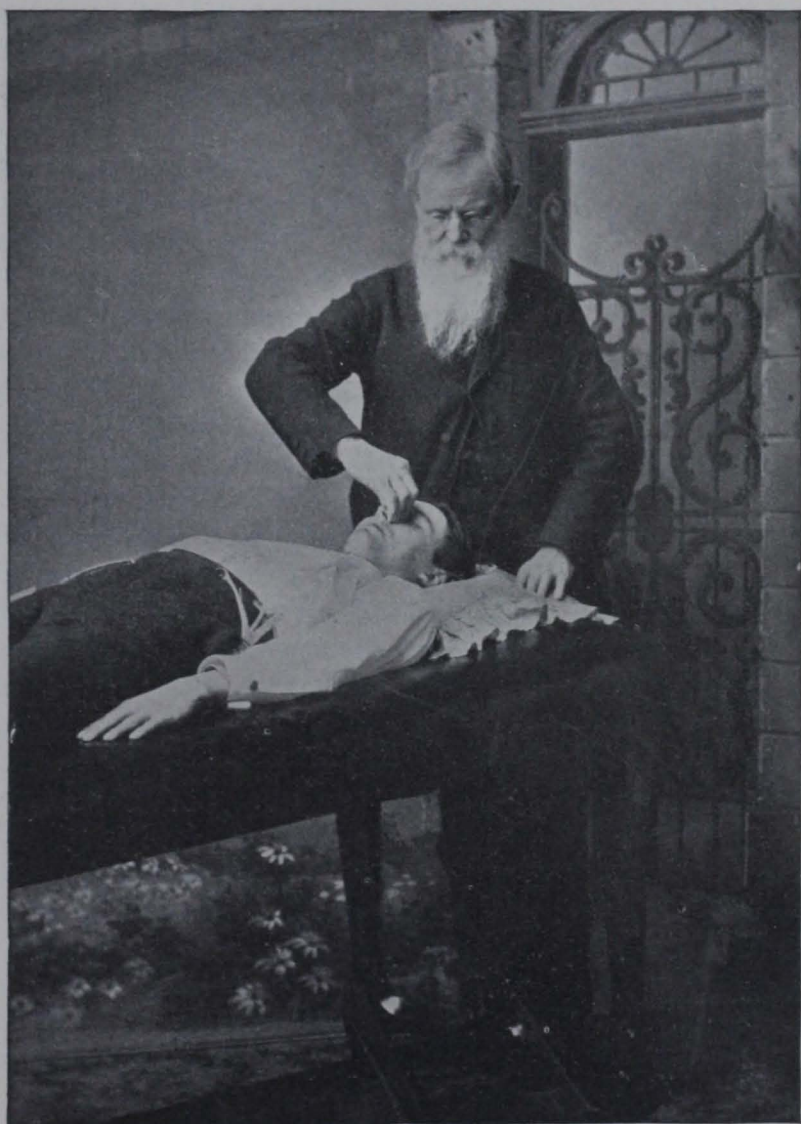
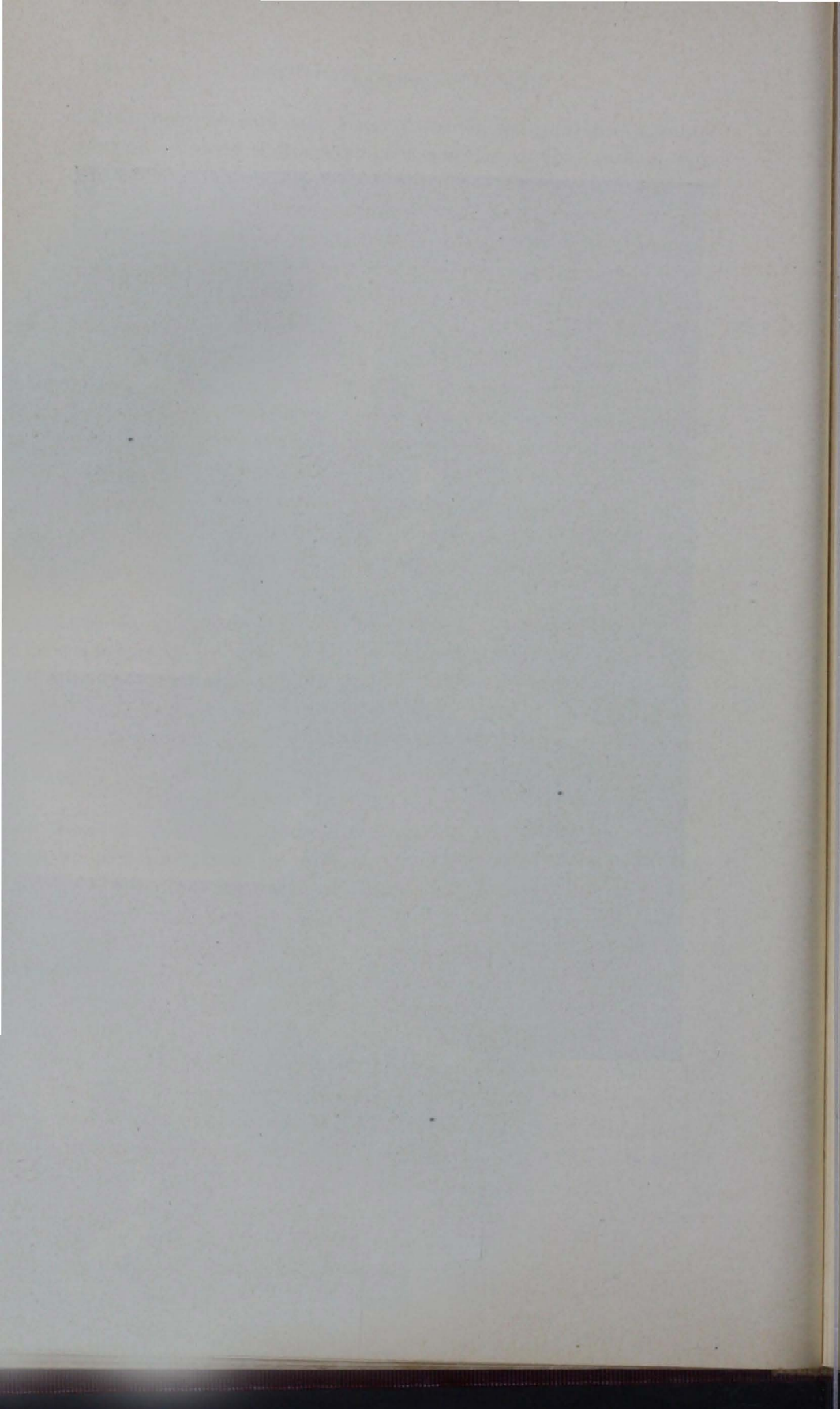


PLATE IX.*a*.—Vibration of Sides of Nares.



that "The life is in the blood"), vigor and motion, and from which is drawn all of the various elements that go to make up the tissue that manifests "the life." To properly comprehend these wonderful phenomena, volumes have been written by the wisest and most learned in the sciences of anatomy, physiology and histology, and ages have been occupied in the research, and speculations mountain high have been made, yet the search continues, each investigator seemingly adding some new theory thereto.

Since the discovery of the circulation of the blood by Harvey, there have been many theories advanced in a fruitless effort to harmonize the various systems of practice, so that the blood in some way would be influenced thereby, and theory after theory has been advanced as to how the blood might be purified; one claiming that this, and the other that that remedy would surely do it; and the craze has raged so vehemently that competitors have arisen who have asserted their compound as the *sine qua non*, and the poor victims of disease have had to test the efficacy of each and every one of these competitors' compounds, until legions have doubtless been consigned to premature tombs, and whited sepulchers now mark the resting places of failures of their "pet notions." Whilst all admit that, to be healthy, the blood should be purified, yet all seem to be at sea as to how this may be done. There is a uniformity of sentiment that circulation somehow influences purification, hence they claim that this or that compound increases circulation, "therefore purifies the fluid circulated." Various methods suggested have been tried, medicines of every kind and potency, singly and compounded, for the purpose of changing the materies morbi of this "life fluid" of the human race.

Why the addition of a foreign substance into the system to "purify" blood ever obtained a footing in the mind of any man, is the strangest thing imaginable! That drugs (medicines) have a pathogenetic effect is conceded without argument, but that they are essential to our recovery from disease

is questionable. That some of them arrest tissue change, others stimulate, others narcotize, blister and purge, seems too patent to dispute. It is not the non-action of medicines that our system opposes, but the action—the too much action—often doing harm instead of the good intended. If it were a certainty, if it were harmless, so that any one could use it as they will finally use Osteopathy, so as to benefit everybody, we would say use it, but we have tried medicines of all schools, and our experience is what many others have had—disappointment, anxiety, death following in their wake too often, when, had we known Osteopathy, many a poor victim who succumbed to the use of drugs in the vain hope of recovery might have lived many years longer than they did—and especially children, whose “summer complaints” carried them off by the thousands, when a moment’s treatment by one understanding the principles of Osteopathy would have cured.

That much more is claimed for Osteopathy than it is possible to verify does not lessen our faith in its efficacy, nor does it intimidate us in our search for every good it is capable of accomplishing. That it fills a niche unfilled by anything else the unprejudiced will readily concede. That there is scarcely a condition pathological that it may not safely, beneficially, be applied in, my experience has verified, and a proper application of its principles will do more for any given case than people unacquainted with it, are willing to concede. That it is a “cure-all,” we make no such a claim for it, and yet, like water, it fits into, and its influences are so far-reaching that it seems to us indispensable, its necessities standing out in bold relief at every pore in the physical economy. Think of a means that completely controls circulation and the forces in the body so completely as to change the action of the alimentary canal to one of alkali and an acid at a single move of the body, or change the abnormal flow of the watery portions of the blood from the mucous membrane of the intestinal canal to a normal flow at one movement of the body. Are not such agencies worthy the highest commendation?

To understand the nerve influences going on in the body at all times, and to know of certain functions being influenced by the stimulation of certain sympathetic filaments, leashes, bundles, or nerve terminals, disease, pain, and often death itself brought to life (or what would shortly end in death)! Colic, flux, diarrhea, hemorrhage, croup, and diphtheria, scarlet fever, meningitis and heart trouble—all of these have been cured through osteopathic treatment, after being pronounced incurable by other systems represented by their leading representatives and teachers. Should such a science be spurned, maligned, misrepresented, simply because of ignorance and prejudice?

If there were no merit in this system, it would have had its day long before now. That there is merit in it is demonstrated by thousands having been cured by it. It is not any longer an experiment, but a proven success, worthy the highest commendation, and receiving the approval of the brightest minds in America, and of some of the leading lights in the medical profession in some of the great centers of this country. That it is often practiced and represented by persons whose intellects are mediocre, successfully, beyond the ability of medical skill to cope with, is a palpable demonstration of its superior merit in the minds of those "who will see." When this book is studied and the manipulations properly mastered, the philosophy correctly understood, many an invalid now environed with hopeless forebodings, will rejoice that help may be obtained. This science has come to stay. It will not down. The combined and untiring forces of every opposition only brighten its already luminous pathway, giving it impetus and strength every time its benign influence is felt by some poor, afflicted, abandoned mortal, whose forlorn, hopeless wailing had died away in the distance. It only needs to be known to be appreciated, adopted, patronized, recommended.

MUSCULAR CONTRACTION.

There seems to be a prevailing notion among Osteopaths that a "bone out of joint," an "atlas out of place," or a "dislocated hip," is the cause of all the trouble, and a large per cent. of the ridicule this science receives is simply due to ungainly, grotesque, ignorant, commonplace expressions that have been carried from mouth to lip; and the literature that has been sent out through the advertising sheets, styled journals, has not tended to raise the reputation of the science much in the estimation of scientific and thinking people. This science is worthy a better showing, and it is to be hoped that when it is properly presented, the mysteriousness lifted from it, and the scientific, anatomical, physiological facts that environ it lead the people up to know that it is plain, simple, common sense and scientific truth, worthy the thought of the **brightest** minds of this or any other age, it will be welcomed as a great boon to all people; then the honorable medical professions will adopt it, use it, indorse it.

The great fundamental principles upon which the science rests are comprehensible. "Pressure anywhere impeding the normal flow of the fluids," is the motto of Osteopathy. This pressure, as it is denominated, occurs in many ways. The most common cause of the interruption of the freedom of the flow of the fluids is cold. It is a known law, recognized everywhere, that cold contracts and heat expands. This law is recognized by all philosophers, mechanics, artisans, machinists, and everybody who observes. To the osteopathic manipulator this law becomes his polar star, for it is known by him that the contraction of muscular fiber, that impediment to circulation, sets in at once as a result of the lowering of the temperature of the body, and as the cold increases or continues, the muscular contraction continues, or paralysis of the nerves ensues; and the undue relaxation allows infiltration of the fluids in the parts involved, resulting finally in disorganization, degeneration, destruction.

The circulation of the blood occupies from thirty to forty-

six seconds in making its round through the system, and if from any cause the onward flow is impeded, chemical changes ensue, decomposition or disintegration, irritation, inflammatory products or new material incompatible to normal action results, and the consequences are disease. This change is commonly recognized as the "materies morbi" of the blood. A sluggish or impeded circulation often results in a precipitate of some one or more of the acids, and that condition follows which we denominate rheumatism. This usually occurs in the neighborhood of the capillaries. If there are obstructions to the outflow of the glandular system, we have results according to the special office the gland occupies in the physical economy. If in the salivary glands, the throat suffers therefrom; if the thyroid, it enlarges; if the thymus, diphtheria, croup, and a host of other children's diseases are likely to ensue. If there is impediment in any of the smaller veins in the sub-mucous membranes, we have catarrh; if in the skin, eruptions follow.

OBSTRUCTION PRODUCES DISEASE.

If there is pressure or congestion of blood or other fluids on the corium of the brain, in the region of the fissure of Rolando, paralysis ensues, demonstrating the fact that motor nerves have their origin in the cortical substance of the brain. It is strange that so small an area involved will produce such an extent of mischief so remotely. It is definitely demonstrated now that certain areas in the corium have special control of special localities in and over the body. For instance, when an area posterior to the upper end of the fissure of Rolando is congested, it produces paralysis of both lower limbs. Other localities are affected in like manner from the pressure on the corium in different parts of the head, demonstrating our theory that *all nerves* have their origin in the brain. For special cortical motor areas the reader is referred

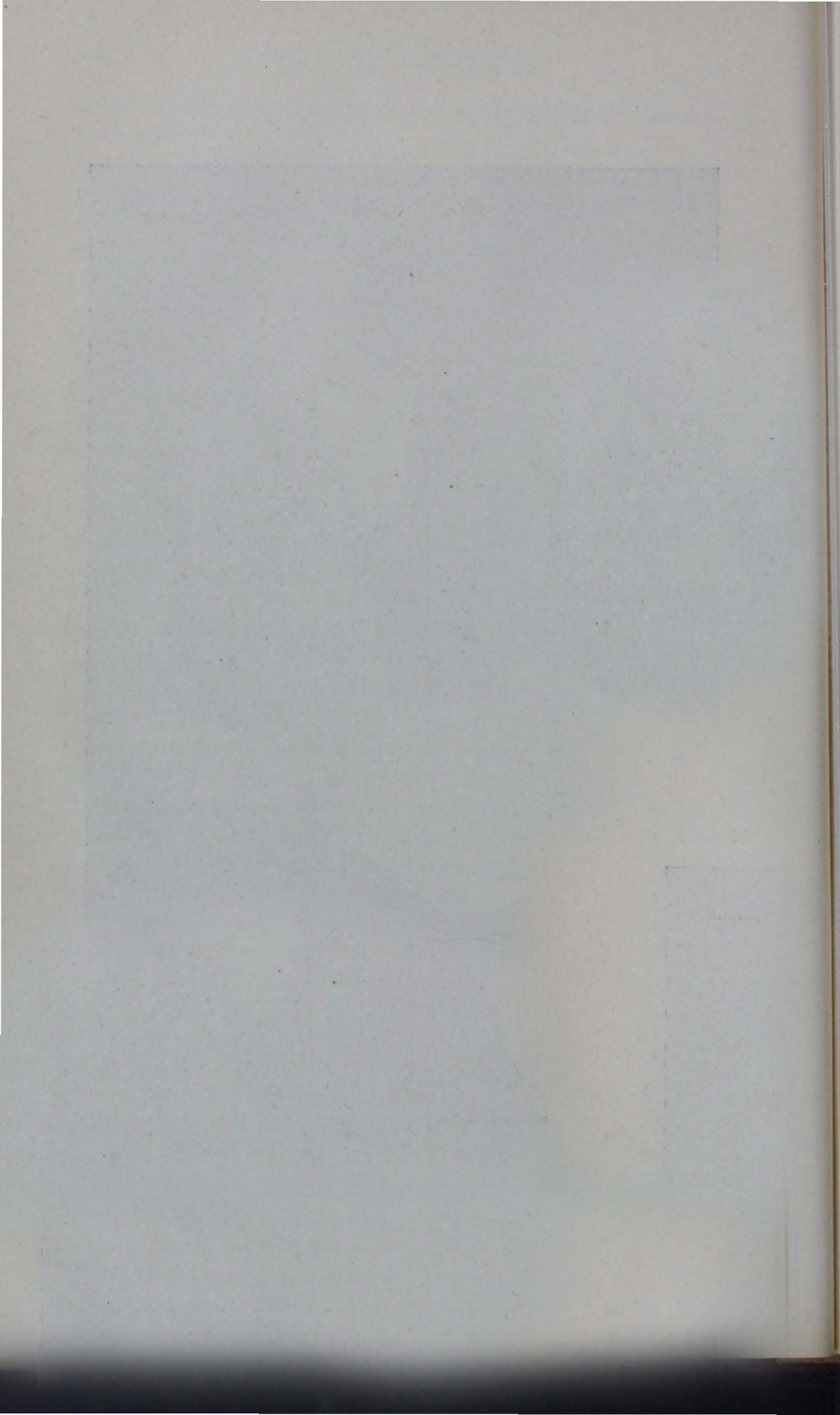
to his Anatomy or to works on the nervous system (Ranney is authority).

Whether obstructions occur as a result of changes in the weather, direct cold, or to continuous exposure of the body, or any part of it, to a lower temperature than normal, or to direct pressure, such as bandages, tight lacing, over-crowded vessels, impediment due to lack of fluidity of the blood, paralysis of nerves controlling the circulation in any or many parts of the body, any one or all of these causes may be and are the cause or causes of the pathological conditions that afflict mankind. Our whole theory has its origin, support, conclusion, on this idea, this fundamental and unheard-of cause of disease, and perhaps unthought-of by other diagnosticians. And while we would not desire to appear dogmatic in this regard, we firmly believe that all pathological conditions are traceable to obstructed circulation somewhere in the system, and that removed, the patient has a better opportunity of recovery than from the possible influence of medication. It surely seems more rational to take off the pressure producing the pain of a morbid condition, than to impose more labor, to care for some other foreign substance that has no earthly relationship with the system, and can not possibly have, with the idea of the necessity involved in the premises. It is like goading an already overburdened animal, or pressing the head of a drowning man under water to keep him from death! Oh, if we could induce the doctors to think!

Undue irritation of a nerve produces pain, if a sensory nerve; increased action, if a motor nerve; an impairment of function, if a sympathetic nerve, or nerve ending in a part. This may be done by contraction of muscular fiber, or muscular contracture may be induced by irritation of the nerve through the sympathetic filaments, and nerve waste may go on to the destruction of the body, without perceptible sensation or pain. Undue contracture may have either of two influences—one that of preventing flow to a part; or, secondly, flow from a part. In the one case nutrition is cut off; in the



PLATE IX.*b.*—Stimulation of Lacus Lachrymales.



other, destruction or impairment of function, due to decomposition of elements pent up, which undergo decomposition for the want of action or circulation. Hence the importance of keeping free the circulation throughout the whole system.

FULL, DEEP INSPIRATIONS.

This is a therapeutic agent of vast importance, not only as a means of expanding the chest muscles, aiding in the purification of the blood in the lungs, and thereby removing many impurities therein through the exhalation that constitutes a part of this exercise, but it is a means of relieving many heart affections, supposed to be organic, when in fact they are simply functional troubles. Melancholia, sleeplessness, indigestion, bad colds, chilliness, insipient tuberculosis, and all other conditions dependent upon the proper use of the chest muscles are greatly relieved, and often cured by this means. There are many of our manipulations made expressly to expand these muscles, as well as to expand the lungs, and thereby oxygenate the blood. Remember that "the blood is the life of man," and that to retain its vitalizing influence nature has provided a positive means of accomplishing its purifications, and it must be done in its own way, or diseases follow. The proper way to fill the lungs is to close the mouth, draw in air, fill the lungs to their fullest capacity, easily, steadily, holding it in the lungs a few seconds at first, increasing the time between taking it in and expelling it from the lungs from thirty to fifty seconds, letting the air be expelled through the nostrils gradually. This exercise should be taken at intervals of two to three hours during the day, six or eight such deep inspirations at a sitting. At first the effort will be somewhat exhaustive, but resting a little while and renewing the effort will surely bring its rewards. The reparation of the system will soon be noticed, and malnutrition and impaired assimilation will be greatly improved, if not restored. This practice not only expands the lung tissue, fills the air cells, but it strength-

ens the respiratory muscles and deepens the chest capacity. The nervous system will be strengthened and made more firm, the blood and tissues generally will be enriched, and the liability to take cold lessened. When it is known that there are many persons who scarcely ever utilize all of their lungs, and that the upper lobes under the clavicles are little if at all used, and that this apex portion is weak, respiration scarcely perceptible, the upper portion of the chest walls flattened on both sides, digestion feeble—that such persons may be transformed into strong, rugged, round-chested, symmetrically proportioned bodies—this exercise will take rank as one of the very best means of preventing many, very many diseases.

There is more in this practice than the ordinary people, and even the physicians, have thought of, and its importance will be enhanced when its benefits are properly understood, realized. This may be said, that a systematic attention to the right sort of breathing constitutes the larger part of hygienic measures necessary to good health, happiness, longevity and the restoration from many of the ills of the flesh that now are to be witnessed everywhere. The exhausting efforts of daily life are usually due to lack of lung expansion, due to lowering of the vitality of the blood, for want of oxygen. The proper expansion of the lungs in all directions is essential, and this may only be had by due attention to breathing. Constant physical exercise in lifting tends to draw the muscles down, while deep, full inspirations expand in all directions—lungs, chest and muscles as well.

DEFINITIONS.

DISEASE.

Disease is any departure in the system from a normal condition, or standard of the structure or office of any part of the body. It is termed Organic, when associated with an organic change in the normal structure, and Functional when simply the office is disturbed, and no change is perceived in the structure of the part.

PATHOLOGY.

Pathology explains the origin, cause, structural changes, history, morbid conditions, etc. Study of individual diseases constitutes special pathology. The nomenclature consists in naming the diseases, and this is usually intended to define the locality and condition involved, as well as name of structure implicated.

ETIOLOGY.

This is generally applied to the subdivision of general pathology which treats of the causes of disease.

HISTOLOGY.

As this has to do in the treating of the minute anatomy of the system, microscopically, it is not of much use to the general practitioner, and should be studied by the physician separately.

SYMPTOMATOLOGY.

This is a term that signifies "signs of disease." A careful study seems necessary. The symptoms of morbid changes vary according to intensity of or character of the alterations in a part and the structure involved. The evidences of changes manifest themselves by special signs or symptoms, and are objective when seen by the observer, as in redness,

swelling, temperature, mobility, etc., and subjective when known or felt by the person afflicted, such as numbness, pain, vertigo, nausea, etc. The study of this subject is the most interesting of any to the practitioner, for a knowledge of the symptoms renders certain in his mind the character of the disease and the locality, as well as the means to be employed in the treatment of it. The complications, sequelae, etc., should be considered, for they often have to do in the regulating of the kind and character of the treatment to be instituted.

DIAGNOSIS.

This is the science of discerning the nature and character of the affection, the exact comprehension of the case, origin, seat, nature of morbid conditions.

PROGNOSIS.

To prognose a disease is the ability to tell its probable ending, and this can be done only by long experience and observation from clinical cases. Prognosis depends largely, sometimes, on the nature of the means employed in the treatment. Many diseases that were thought to be incurable in former years, by certain methods, are now treated successfully by others, so that our prognosis depends largely upon the means employed in the treatment.

THE NERVOUS SYSTEM.

THE IMPORTANCE OF THE NERVOUS SYSTEM.

When it is known that the nerves are the media through which all motion, sensation, as well as sympathy, throughout every organ and tissue in the body, are communicated, and a complete supervision of the manufacture, selection of all of the material that enters into the structure of every element, the direction of distribution, building up, tearing down and eliminating at the proper time, place, through the proper channels, their importance will be apparent.

That there are various opinions regarding the nervous system is conceded. That many theories are published, reputable, standard authorities testify. That the medical profession begins to believe that nervousness has its origin in or connected with the nervous system, volumes published abundantly exemplify. That we have a nervous system is no longer a mooted question, but from what has already been written and said about the especial offices these nerves perform or what the nature of their performances are, seemingly little is understood.

Anatomists tell us that we have twelve pair of cranial nerves, which have their origin inside of the cranium, and a spinal classification which originates in the medulla and extends through the foramen magnum down the spinal column. The distribution of nerves is pretty fairly shown by all of the works on anatomy of to-day, and physiologists have done well in describing their special official character.

The question now arises, what has this to do with Osteopathy? We answer, much every way, for we design to show that this science is based solely on nervous influence, and that without due regard to the nervous system but little may be accomplished in our understanding of, or the consequences of,

Osteopathic manipulations, or disease, its cause, treatment required, where to apply it, or anything about it. More devolves on an understanding of the action of the nervous system than the "luxation of the atlas." It has been a question with me since my attention has been called to investigate the nervous system, whether our physiologists have not come to hasty conclusions about how the nervous system controls. Looking over various authors regarding this matter, we find that all are of the opinion that the cranial nerves originate in the head. There is no difference as to the origin of the spinal nerves starting from the medulla oblongata, but there seems to be confusion as regards how sensation, motion and sympathy are carried on. The most of them assert that nerves branch, and that these branches have separate offices to perform, and that fibers run to certain localities, form ganglia, and from these ganglia new influences are generated, new nerve fibers originate, and are thus regarded throughout the whole system; and that because a nerve terminates in the tongue it must necessarily be a nerve of feeling. From long observation we have come to the conclusion that, to make out a rational system of nerve distribution, the literature on this subject should be worded differently, or entirely rewritten.

Not wishing to appear presumptuous or egotistic, but somewhat original on the plan of distribution, control and origin of the nervous system, I make this startling and entirely new assertion: All nerves originate in the brain. I assert this as an axiomatic, foregone conclusion, for the following reasons: First, the nervous system consists of bundles of fibers, composed of the same substance as that from which they originate—similar in structure as the brain itself—including its coverings, arachnoid, pia mater, dura mater, etc. These fibers convey intelligence to the parts to which, and in which they are distributed, and only influence at their ends, and through their footlets or terminals. Each motor and sensory nerve coming from its origin in the brain from whatever locality, ends with a sympathetic footlet, and through

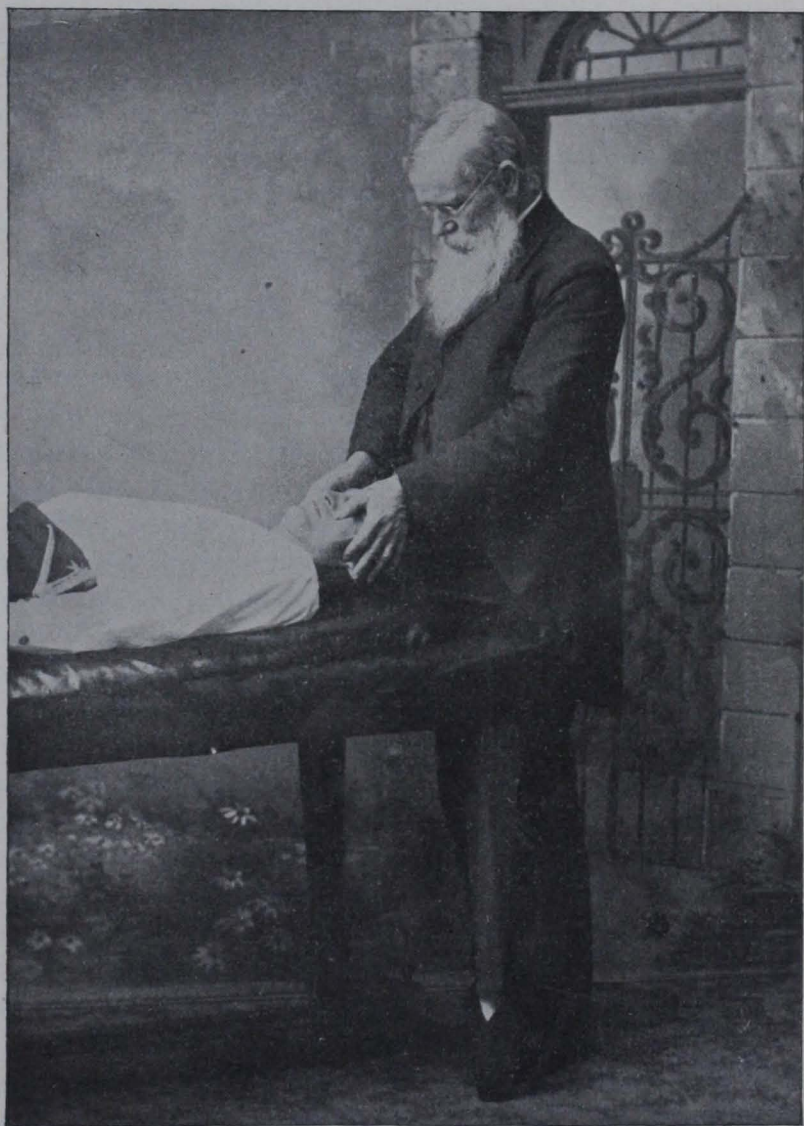
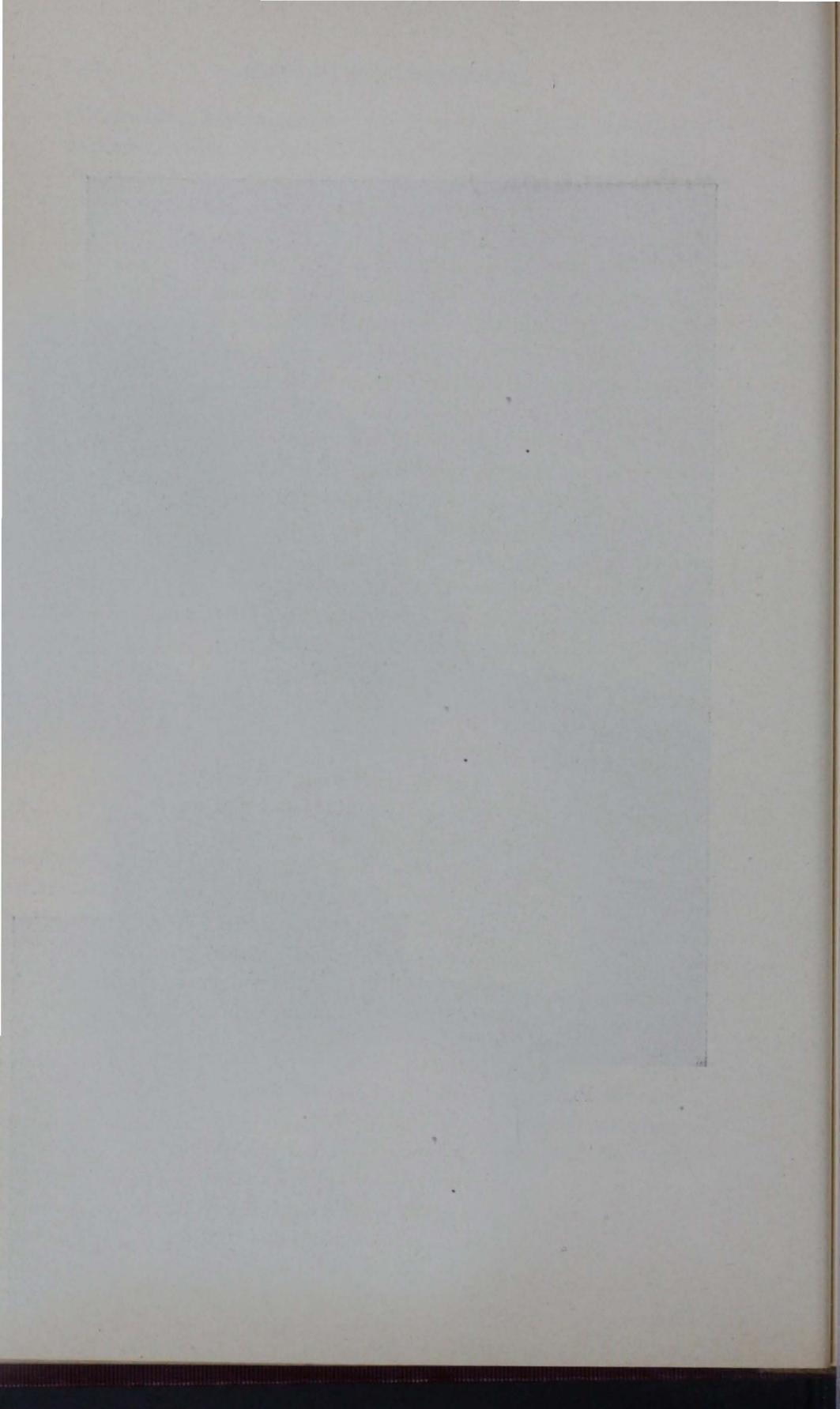


PLATE X.—Vibration of Facial Muscles.



this sympathetic fiber intelligence is communicated, direction is given there, impulse received, execution of the order at once ensues. To make this matter plainer, suppose the submaxillary gland should be required to generate a secretion to moisten the mouth—the mucous membrane there—and to mix with the food; what action does the nervous system perform? In the divine economy regarding the human system certain glands manufacture certain kinds of secretions, and others manufacture other sorts of secretion; all of which go through their normal outlets, to be appropriated accordingly. Now that perfect order may be had in this particular gland, it must be superintended by mind, and we will suppose that this mental influence is conveyed through the sympathetic nerves, as they of themselves have no sense, either of feeling or motion; the thought, starting at the origin of the line of communication, is transmitted to the farthest end of the line, and there ending in a footlet directly in contact with a motor footlet—one of the servants of the sympathetic—the executor of orders from the sympathetic; and through a laboratory of wonderfully complex construction, through which the blood passes, there is required to be manufactured a certain chemical (alkaline, for instance). This sympathetic nerve superintends the selection of the basic principles from the blood that make up this compound, and then sees to it that every detail is carried out, so that a perfect adaptation to the purpose intended is consummated. Who is ready to assert that all this comes by accident?—especially when the same thing occurs in every other department in the manufacture of every other organic substance the whole lifetime of the person whose body this sympathetic nervous system controls?

The nerves should not be understood as starting from ganglia or plexuses, for that would be admitting that each ganglion would be a nerve center, and this would make confusion worse confounded all over the system. While it is said by Dr. Watts that "The Lord works in mysterious ways His wonders to perform," we find that all of His ways are accord-

ing to the very strictest order, carried out to perfection in every detail. To assert that we have twelve nervous systems in the head, and thirty-one separate nervous systems in the spinal cord, and a chain of them in the abdomen, would not comport with facts, nor be at all consistent with reason.

It is said by all of the authorities examined, anatomists and physiologists, that the nerves have "branches." A more inconsistent idea could not be advanced, when we take into consideration that all nerves influence action at their terminals, and that a direct line of communication must be had from origin to terminus before any execution can be effected. To understand this matter fully, we will suppose—and that it is a fact—that nerve fibers originate in the brain as separate and distinct lines of communication for a special and distinct purpose, to connect with terminals of other fibers, which also start in a nerve center in the brain, and these separate fibers end in every tissue in the body, not being disjointed, relayed, resupplied in ganglion, but each fiber has a separate and distinct office to perform in the human economy, directed by a Divine Mind, whose control is ever omnipresent—everywhere in the body, seeing that every detail of every order is carried out to exact precision. Starting at the corium we have fibers terminating in the tissues all along the course of the line, like a bundle of fine thread or hairs of different lengths, cut off along the wisp, as it were, and the longer ends continuing to the farthest-off recesses of the body. This is easily understood when it is shown that a congestion of the corium on the top of the brain receiving an extra supply of blood from a bruise, paralysis is instantaneously produced on the opposite side of the body clear down to the end of the hallux. Each and every chemical change that takes place in the system everywhere, of every kind and character, is the result of nervous action, or mind acting through it. This we understand to be the physiological action of the nervous system, and, regardless of our will or nil, awake or asleep, is essential to our physical well-being. These facts understood, furnish

a whole lot of information in the direction of our comprehension of what disease is and how it is produced. The circulation of the blood, containing the inorganic elements in solution, is not only controlled by the Sympathetic Nervous System in the larger vessels leading from the heart, by controlling the peristalsis of the muscular walls, but into the finer arterioles and on into the capillaries, and mysteriously selects from it, while passing through the capillaries, such elements as are essential to the building up of material in the immediate vicinity of the capillaries, but marshals the waste material in due order and directs its onward course through the lymphatics on and into the veins beyond the capillaries, to be carried back to the heart, but continues its superintendence over the elements thus drawn from the blood in the capillaries, placing each atom in its proper place, so that the whole system is renewed at all times and all places at the proper time, everywhere in the body. The sympathetic nervous system is the great one that presides over all the functions in the body. It is called "sympathetic" because of its intimate relationship with every other part of the body. It superintends and energizes all of the processes of growth, repair, tissue building, respiration, circulation, and the elimination of the waste material from the tissues.

"It is the sleepless sentinel who stands at the gates of life as long as we live, even a hundred years, and never sleeps for a single moment, night or day. Nothing short of lethal doses of narcotic or anæsthetic drugs can wrap it round in slumber robes and stretch it on its dreamy couch. It never sleeps but once, and that eternally. It is that body servant of yours who never deserts you nor quits your service night nor day, for a single moment, while you live; a friend that truly sticketh closer than a brother, watching every heart-throb and every breath you draw. It is that butler of yours who, without orders from you, looks after the nourishment of every bone, muscle, nerve and tissue of your body, and provides you with every well-spring of thought and emotion. It is that deft

artisan who oils every joint in your frame, and keeps it from cracking and rasping with friction and loss of mobility; who lubricates all of the surface of the body, internal and external, so that it does not dry up and crack to pieces, nor drip with excessive unction. It is that faithful servant who without murmuring pumps your breath and blood for you through the long hours of the night while you sleep, and through the busy hours of the day, when you are too busy to think of breath or blood. It is that janitor of the temple of your soul who keeps up the fires in your bodily frame and maintains $98\frac{1}{2}$ degrees of temperature throughout every department of the 'house not made with hands,' through summer's heat and winter's cold, whether you live in the tropics or 'on Greenland's icy mountains.' It is that cunning servitor who always stands at the window of your eye and opens and closes the iridescent curtain of the iris so as to let in just so much light as to enable you, in the glare of noon or the shadows of twilight, to see with comfort and pleasure all the beauties of the world around you. It is that faithful warden who stands at the gateway of your stomach and reports instantly to the brain whether you, in your ignorance or stupidity, put into your mouth a delicious fruit or a corrosive poison. It is that cunning mechanic who sees to it always that your blood, as it courses furiously through its channels, is composed of so many white and so many red corpuscles, and that each corpuscle carries with it so much lime, sulphur, phosphorus, carbon, oxygen, hydrogen, and nitrogen, and all of the other primal elements of your body in exact proportions, and sees to it, when they each lay down their burdens at the gateway of life, each atom thus carried into the economy by unerring selection, is built up into frame and wall and member and tissue of your body, always renewing life in the midst of death throughout the citadel of your being. And that same wise warden looks to it that every corpuscle or atom, on its return journey through other channels, is loaded with worn-out and effete materials, to be carried out of the great temple of life, to again mingle with

the clods of the valley. This nerve is the invincible defender of the fortress, who, amid the havoc of shot and shell, of saber stroke and leaden ball, the shock and concussion of collision, the delirium of typhoid and the wreck of insanity, still guards and protects and repairs the breached fortifications of life. Through all the infinite vicissitudes of life the great Sympathetic is still our best earthly friend and benefactor. It is the great clock in the temples tower that calls for every passing change of life, wound up to run a hundred years; and as it ticks your allotted time, it marks the age of speechless, puling infancy, when you can neither understand nor tell your own wants; it measures off your youth and strikes the hour of manhood; it calls you to the mystery and mating time of love; it rings the dinner bell each day of healthy life and calls the hour of sleep and rest; it changes the epoch of gray hairs and slower gait, of waning vision, of shrunken shanks and biceps; it sets your voice in piping tones to prating of the times that were, the deeds of former days, and youthful prowess, and when those deeds are told, you sigh and say, 'Ah, me, I am growing old.' And then, some day, when ripe and ready for the change, it rings the curtain down and closes up your stage from mortal gaze, and as one who quits a tenement long kept, and gives it over to worms and mould and dust, to cobwebs, bats and flies, its wheels turn slowly round, the hammer fails to strike; the hours are tolled, and this same friend goes out from long control to terminate a long career, lies down itself and goes to sleep—that sleep that knows no waking. Then swift decay comes and covers all with mould, and orders with dispatch assimilation with the clods that heap the valley, and leaves you there, with time, the elements and God. Who can comprehend its greatness, its countless capabilities, the vastness of its service, or the infinitude of mind that planned and constructed it?"

The above but feebly outlines the vastness of the functions of the sympathetic part of the nervous system. Opening the avenues a little wider, starting with the first impulse

noticeable in the functions of the cranial nerves, we perceive the sense of smell, then of motion, sight, feeling, tasting, seeing, hearing, all being special senses. These are marvelously wonderful. Then to trace the process of digestion, absorption, assimilation, manufacture of new material, the removal of the old, the chemical changes that are constantly going on in the whole body, opens to us a field that expands as we enter wider and wider, and this subject becomes the more interesting when the causes and the cure of disease are considered. Osteopaths claim that when all of the fluids are freely, normally circulating through their proper channels, all of the muscles are in their normal condition, and all of the nerves are free from pressure, health is the condition experienced.

THE VASO-MOTOR NERVE CENTERS.

It is said that such a thing exists in man, and to have its origin in the medulla. The exact center is supposed to be slightly above the calamus scriptorius. Recent observations concede to this set of nerves the power to control innervation of blood vessels, and that there are in this system afferent as well as efferent fibers. It is also said that the afferent set irritated excite or depress the activity of this center, and in a reflex way cause contraction or dilatation of the blood vessels. We are informed by anatomists on this subject that on irritation or stimulation of these filaments atonic contraction of the walls of the blood vessels occurs, and we are also informed that irritation of any sensory nerve of or in the body results in general contraction of the blood vessels, and that there soon occurs a relaxation of the walls of the vessels in the immediate vicinity of the parts irritated, that this activity is perceptibly decreased when the pneumogastric nerve is irritated.

That two actions occur or are the result of stimulation of the vaso-motor nerves generally is not yet thoroughly settled. The vaso-motor and the vaso-constrictor fibers both occupy-

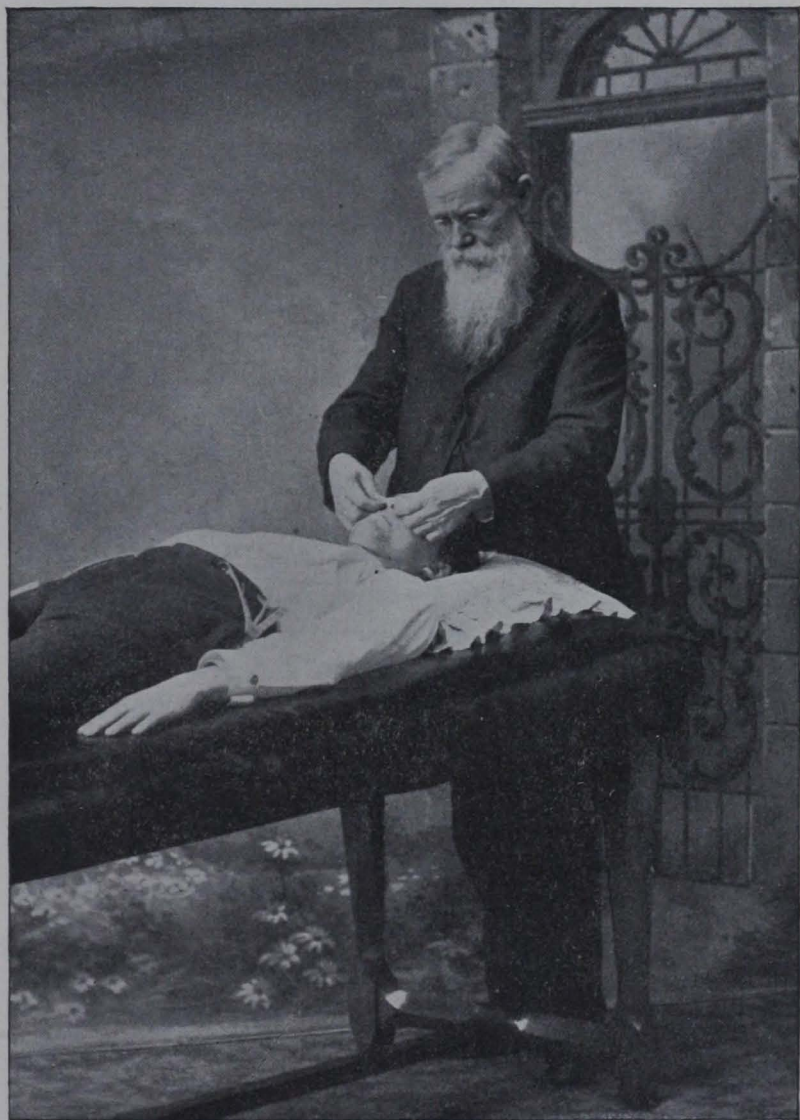
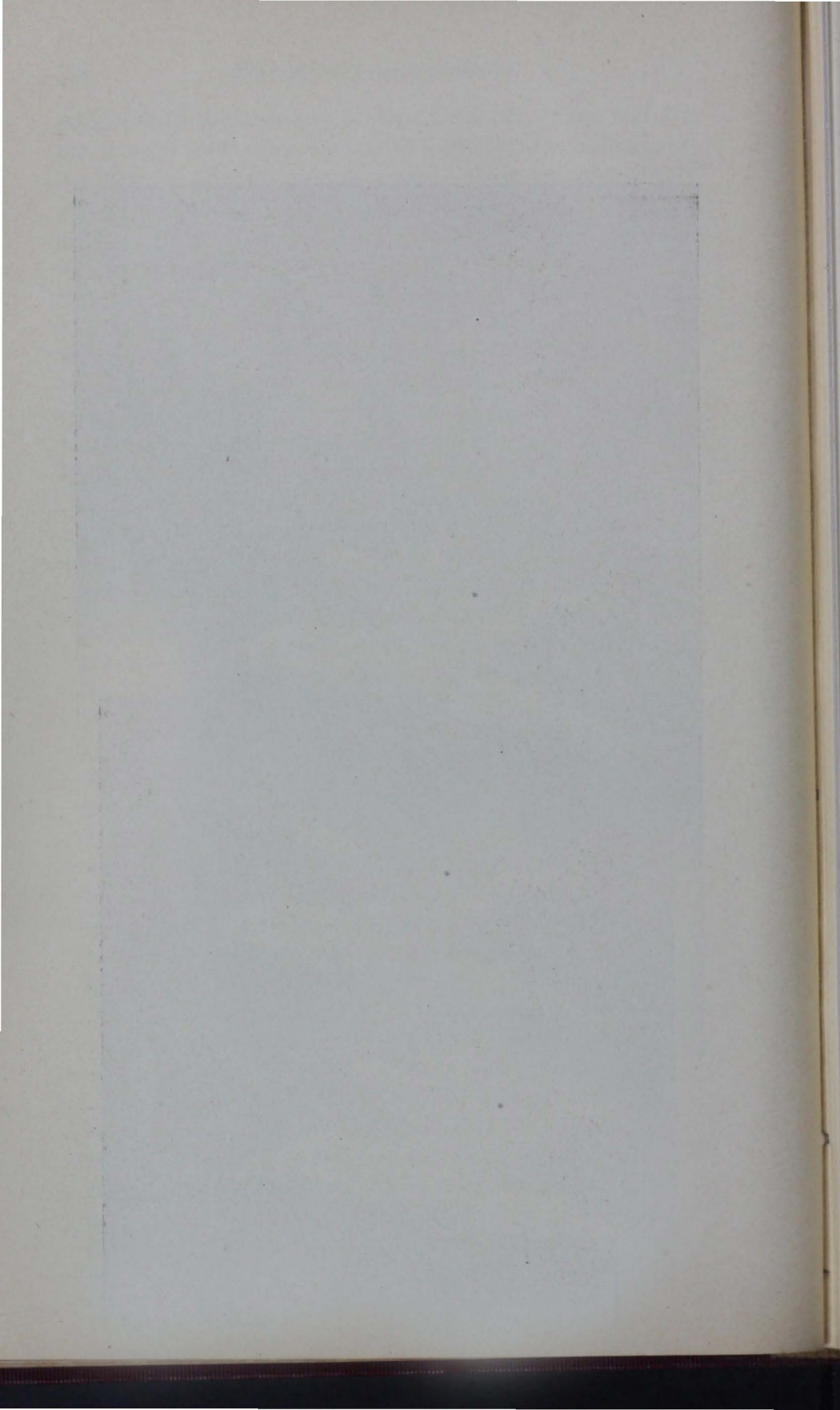


PLATE XI.—The Divulsion of the Nares.



ing the same sheath may be, but that one set of fibers carry two sorts of influences does not comport with observation. That the sympathetic nerves are all vaso-motor we incline to believe, because they surely control all action in every part of the body. That some points are more vulnerable than others is conceded. That there are certain fibers which terminate around the great openings of the heart and control its action and all of the blood vessels, the circulation therein, is true; but do not other sympathetic nerves end in other important structures and control them? When it is understood that all motion in the body, when controlled at all, is controlled by the sympathetic nervous system, we shall not be greater sticklers for a vaso-motor nerve center than we shall be, or ought to be, for a brachial plexus. The important practical point for consideration by the practitioner is, that we influence action in the blood vessels by stimulating the surface, skin and deeper structures in the neck, in the region of the occiput, and down at the sides of the spinous processes for three or four inches, embracing what we term the cervical plexus, or the ganglia along the sides of the neck. A steady pressure with thumb and fingers influences circulation. The degree of pressure governs results. A slight pressure stimulates, a hard pressure inhibits, slows heart's action, lessens irritation, or it ceases, and fever subsides by pressure in this region for a few moments. That these filaments convey influences to the heart and thence to the muscular walls of all of the blood vessels, seems to be a fairly well established fact. This is another step in advance of the use of a febrifuge in the way of medicine, and is used by the Osteopath successfully in treating fevers of the highest temperature and of the most malignant type. Strange indeed that we should be so slow to learn that the means for our own, as well as that of our neighbor's welfare are always within our grasp, if we only knew it!

NERVE CENTERS.

In the treatment of diseases osteopathically, it is claimed by many (ignorant, of course, of the fact) that certain nerve centers—for instance, those that control action in a vital organ—are reached or stimulated directly by contact along the spine or back of the neck, and therefore osteopathic treatment “consists in treating nerve centers.” A more erroneous statement could not be made. It is wholly devoid of truth. When it is an established fact that all nerves have their origin in the calvarium, the assertion that we reach nerve centers by manipulations, directly, is too palpably untrue for ordinary intellect to entertain. That certain definite results follow the manipulations of the body in different localities, in the various methods used by Osteopaths, is true, but why? Not on account of the treatment or stimulation of nerve centers. We exercise influences that we have no conceptions of in our manipulations, but that certain results follow certain manipulations is often demonstrated, but how they are brought about in the system is as obscure as the sun at midnight. Anatomy of recent years has taught us that nerves convey influences from a given center to a periphery, and that they in some way control action, sensation and sympathy. Observation confirms this notion or fact. Osteopaths are founding a system of healing on the basis of nerve influence, and investigation becomes interesting along this line, for “our craft is in danger” if it should be proven, and mysterious drug action will be abandoned, and reliance will be no longer had on them.

Starting at the base of the occiput, then, we begin our treatment of all diseases, for the simple reason that disease is the result of disturbed action of the source of vitality—that vitality is “in the blood,” and here, at the base of the brain, in the cervical region, we find terminal nerve filaments that, if stimulated, control the circulation of the vital fluid—the blood. The blood containing all of the inorganic elements from which is drawn the substance that makes organized tissue, it is essential that the unorganized elements be carried to

the various parts of the body needing said elements, and as they are only carried there in the blood, and that through arteries, and that the action of the walls of these vessels wholly depends upon nerve influence, it becomes apparent to the observer that it is essential to know how to influence nerve action.

The sympathetic nervous system superintends and, as we contend, controls every action in the body through the motor nervous system. The union of these two at their terminals constitutes a quorum—the sympathetic directs, the motor executes. Therefore, in order to carry on any process in the body, these two nerve terminals must have connection with each other. A modified or retarded suggestion by the sympathetic, and a sluggish execution of the order by the motor nervous system, produce all of the pathological disturbances known as disease. This will explain to the pathologist much that has heretofore been conjecture. These premises are self-evident. It is said that certain secretions are manufactured in certain glands by the sympathetic nerves; but has any one explained how it is done? It requires two forces in nature to accomplish anything.

THE ROLE THAT THE SPINAL SYSTEM OCCUPIES IN THE TREATMENT.

The spinal cord is not merely a channel to and from the brain, but regionally there are certain endowments that become of primary importance to the Osteopath. After leaving three or four of the cervical vertebrae, as we descend, every portion becomes a source of great importance. There are regions that, being influenced, reflect that influence in such a way as to demonstrate the supreme control of the portions of the body corresponding to the distribution of nerves emerging from the spinal regions. These important starting points in the treatment of disease determine results. Disease in parts supplied by spinal nerves may generally be located by

the presence of tender spots along the spine in the locality of the emergence of the nerves leading to and supplying the parts pathologically concerned; hence become an index thereto. In the distribution of the various filaments therefrom we have another evidence of unvarying uniformity of supreme supervision of the house we live in. Through these filaments, beginning at the foramina in or along the spinal column on either side, and inducing proper stimulation, we have learned, starts up new life in the parts supplied by these nerves, and diseases thought to be incurable by other means disappear.

The thirty-one pair of nerves that emerge from the spinal column exercise influences little understood by the large majority of people, and, we opine, by the medical world. From the three or four upper dorsal and the four lower cervical regions, starts out a force from the brain that invigorates the entire man, starting into activity vital organs, and perpetuating their action beyond human computation or imagination. The various seats of the energies of the whole man seem to, and do, come out of these foramina. For convenience and practicability therapeutically, we prefer to divide the spinal column into six grand divisions, to-wit: The Cervical, Brachial, Dorsal, Lumbar, Sacral, Coccygeal; the Cervical embracing the four upper vertebrae; the Brachial three lower cervical and first dorsal; the Dorsal the first dorsal and including the twelfth; the Lumbar the five lumbar vertebrae; the Sacral all of the sacrum; and the Coccygeal, the last, including the last set of ganglia on the inner side of the coccyx, called the ganglion of impar. With these divisions we have to do in the treatment of diseases of all forms and conditions, and through these various divisions we exercise influences that result in such marvelous cures as astonish the world. To study and to know the distribution and special functions of these spinal nerves qualify us to practice the healing art with a certainty not heretofore reached by any other method.

Whether influences start from the pressure directly ap-

plied near these foramina, or through the terminal filaments terminating in the integument, or through the muscular contraction on the corium of the nerves, or whether directly through the ends of the sympathetic nerves to the brain, starting forces from it we may never know certainly, but that changes do take place through this method, abundance of evidence accumulates.

THE GENERAL OUTLINE OF SPINAL NERVE INFLUENCE.

It is an accepted theory that nerves coming out of the foramina on either side of the spinal canal, through the foramina, are spinal nerves. These claim our attention here. The reader, if he is interested in the treatment of disease by this method, may be assured that surprises will often occur in his application of these treatments. The results of this treatment come through stimulation of nerve filaments which control the circulation of the fluids, the manufacture of organic material out of the inorganic substances held in solution in the blood, the elimination of the waste, and the building up process in every tissue in the body.

These we understand to be the sympathetic nerve filaments—not nerve centers. The learned Prof. E. H. Pratt, of Orificial Surgery fame, of Chicago, Illinois, demonstrated, years ago, that nerve waste resulted from muscular contraction or cicatricial impingement on sympathetic nerve terminals; and has very largely revolutionized the thought of the advanced thinkers and actors in the surgical world, demonstrating his theory by years of successful operations to relieve pressure. And while he recommends the use of other means than ours, the object is the same, and results show the correctness of the conclusion that the sympathetic nervous system controls when not forestalled.

It was long thought that the "dislocation of a rib" was responsible for all the mischief, or a "dislocated hip," or a "slipped vertebra," had much to do in producing disease of

all kinds; but the intelligent in the ranks of Osteopathy are ready to concede the causes to other sources, and now it is a pretty well settled fact that dislocation does not play such a role in the production of disease as formerly. Some signs begin to indicate a practical, physiological disturbance as the general factor in producing many of the ills that "flesh is heir to," and that a bone does not have to be "set" in every case that comes to us for treatment. The world surely "do move."

Theories about this and that cause of disease have been advanced, adopted; learned intelligencies of all schools have written great volumes to elucidate them, and time has shown their fallacy, and many remain as spectral ghosts to haunt mankind which in time will share a like fate. The masses bear the ills rather than fly to others they know not of. The education of the masses is the hardest work—the most difficult task to do, for it is with the people these new systems have to do, and the proper presentation of plausibility for their rejecting the old and adopting the new, is a herculean task. Solomon said a long time ago that "there is nothing new under the sun," and for fear somebody should rise up and present something new, the people, with one consent, decide not to investigate, for fear Solomon might be found to be mistaken.

The reader need not lose any nerve force on this proposition, for we have nothing new under the sun—for this has always been under the sun. Since Adam first exercised the prerogative of mobility, and demonstrated that locomotion could be made with his shanks and biceps, our system has had a place in the Divine as well as human economy.

It is not a matter of concern with us about reaching nerve centers directly, for these are inside of the brain, and inapproachable by direct contact; but that influence is conveyed from the terminals to centers there can be no doubt. When it is understood that nervous influence is exercised at *the ends* of the nerves, we may readily see that there is reason in *stimu-*

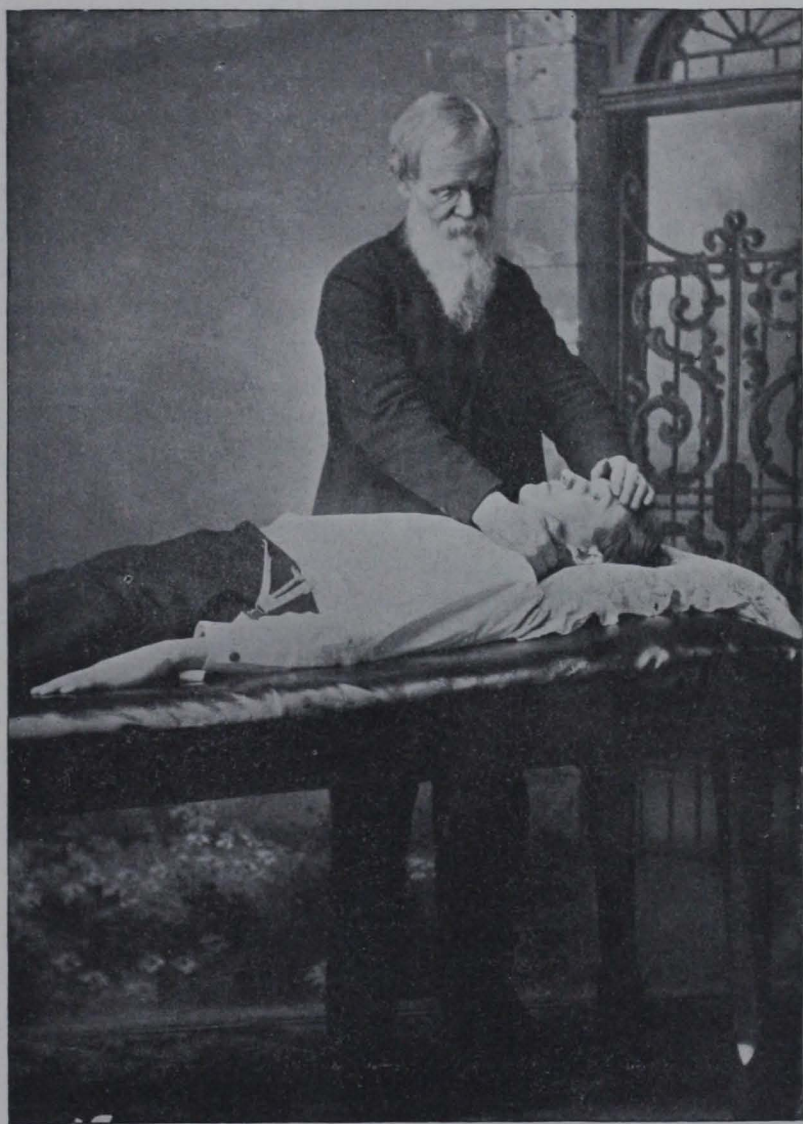


PLATE XII.—Manipulation of Muscles of the Neck.

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lating nerve terminals. That there is a sudden change of the secretions in certain organs through the stimulation of nerves along the spine there is abundant proof. We reach the stomach, through the splanchnics by stimulating the dorsal region in the neighborhood posterior to the stomach, neutralizing an excessive acidity instantaneously, and relieve colic. We influence the terminals of the sympathetic filaments along the spine in the region of the twelfth dorsal vertebra, and exercise an influence over the secretions of the kidneys. We irritate or stimulate the lumbar region about the second lumbar vertebra, and an influence is exerted in the genital organs. These are some of the examples which fully demonstrate our philosophy of cure. Take, for instance, a case of excessive secretion of urine: we possess the ability to regulate, by simply stimulating certain portions of the lumbar terminal nerves, in a certain locality, beginning at the right place, and following up the stimulation in the proper direction. All other excessive secretions are controlled the same way. Nervous influence is the proper influence to bring to bear in the cure of all diseases. The nerves themselves are controlled by other nerves, and the smallest imaginable molecule of every atomic cell is under the direct influence of the sympathetic nervous system, and when we properly understand how to utilize it, direct it, relieve it of any and all abnormalities—in a word, know when its functions are interfered with, where, and know, too, how to right it, disease is simply under our control. The marvel of marvels is, how does the nervous system perform such wonderful things? To the student of nature who accepts demonstrations as proof, it can be readily shown that intelligence must permeate every tissue in the body in order to look after the building up, repairing the waste, taking care of the worn-out material, and looking after every department as needed, in such wonderful precision; and that this mind must have a perfect system about it or confusion worse confounded would soon end in chaos. It takes just so many elements to constitute the human system, and

these must be in exact proportion, and be held in solution during their passage through the various channels, and must give off exactly so much of this and so much of that particular element at the proper time and place, in order to maintain the weight, constituents and office of the various organs at all times, in all altitudes, countries and climates—and hence mind must be a prime factor in the business; and we insist that these nerve channels are the media through which this mind executes its will. If the communication is free from start to ending, the functions are properly performed; but if interrupted, intercepted, confusion reigns, and the degree is always in proportion to the quantity and quality of the obstacle or obstacles to be overcome. Hence our motto, "Take Off the Pressure."

NERVE FORCE.

There is much said about Nerve Force. What is nerve force? It surely seems to be some inherent power in the nerve that is exercised by the nerve itself. That we have any nerve force is an assertion without proof, or even the semblance of truth. There is an expression equally as meaningless—Nerve Waste. What does that mean, if not the wasting of the nerve itself? There are so many terms used that confuse the mind, meaningless terms, that we are often at a loss to know what is meant by them. The best way to express anything is to state exact facts. What is nerve force? What is nerve waste? When we properly understand that nerves are only the channel through which force is conveyed, and that force is the result of chemical changes, and that chemical changes are the result of mixing chemical elements, we shall begin to imagine what the term "nerve force" signifies. Cut off the supply of the material that constitutes force, and you have a waste. Where does this supply come from? From the food eaten. These forces, then, come from the food eaten, chemically changed during the process of digestion,

assimilation, circulation. The circulation embraces general and special circulation, mixture and admixture, combination and recombination in every department in the physical organism, and organizes and disorganizes, renewing and changing forces constantly. The little tubes we call nerves are only the conductors of the intelligences carried on everywhere in the body at all times. The arterial set of tubes carry the material outward, distributing the material to the remotest confines of the various parts of the body, and the other tubes, called the venous system, carry it back to the great center—the heart, constantly, so that these conditions called waste and supply go on all the time. You may now understand what is meant by nerve force, or nerve waste. Freedom of the circulation means building up, impeded circulation means tearing down—retrograde metamorphosis. There is no force in a nerve any more than there is in a bone. The medium through which a force is conveyed is not the force. To say that we lose nerve force is to say we lose all force in the body, or some force. Does it occur to the reader that the letting down of the system in any degree or the rousing of it in any way is the result of the chemical changes that take place in the elements? If that is not understood, the comprehension of the meaning of disease has not dawned upon the mind of the reader. We assume that this body is a cosmos—a world within itself—of the world chemically, materially, so far as our bodies are concerned, and that our spiritual man is only an inhabitant endowed with personal, entire control of it, and that these tubes called sympathetic nerves are the connecting links that unite every department with the central station, and that through these various tubes is communicated, in a normal state, the intelligence needed everywhere in the body, to all of the material carried there through the arteries, even to the regulating the caliber of them.

The manufacture of the various fluids in the different parts of the body is superintended by the intelligence conveyed through these nerve tubes, and we are wont to call this

intelligence nerve force. These minute tubes, filaments, originate in the brain, are connected with the minutest portions of every tissue in our body. How intelligence reaches the various parts of the body through these tubes we may never comprehend, but that it does is not now questioned by physiologists. How this element called Neurin is manufactured, we can not tell, neither do we know how sulphur is generated in the muscular fiber, yet analysis has demonstrated that to be a fact. That the channels through which we are said to receive intelligence are five is a pretty well understood fact; but how is it deposited in or upon the tablets of the brain, subject to our demand for use, is a mystery to us all. Something from without finds its lodgment through these avenues that we call thought—intelligence; this, we are taught to believe, is thought—knowledge, intelligence. That is what we assume is the power within the physical organism that controls every department we call the body, through these organs we denominate nerves. Cut off the communication anywhere along the lines of their distribution, or abridge their sphere of action by change of structure in their chemical constituency, and you have what is denominated disease. Muscular fiber may be affected in the same way; so may any other tissue in the body be thus changed; and the change in the molecules of any element produces a change in every other part of the system, because the system is a unit—a cosmos. These changes result as a consequence of sluggish or impeded circulation of the fluids of the body anywhere, in any and every structure. The chemical changes resulting from decomposition of blood cells, as they are termed, are in proportion or exact ratio to the tissue involved, parts affected, locality and organ involved. In some instances we have fever as a result, in others a paralysis, in others a constipation, and in some others a diarrhœa, in another insanity. The nomenclature of disease is, and always has been misleading, and the treatment seems to have had reference more to the name than to the real pathological condition. The comprehension of the phil-

osophy and the true state of the case, as taught in this book, according to the real facts involved in the science, reveals causes as they are, and not after some hypothesis, and at the same time states fairly and fully the means whereby the causes may be removed. There are no clear-cut, comprehensive methods to be relied upon in the various systems purported to be remedial, but in most cases a "try potency," and if that doesn't do, try again. There are many remedies that have had their influences, and doubtless oftentimes seemed to satisfy both the doctor and patient—at least something was being done, that no doubt relieving the condition satisfied. We are not trying to disprove the efficacy of other systems, but to show up our own. The superiority of our system is the subject under discussion, and we expect to prove it to the satisfaction of every reasonable minded reader—as a drugless system of healing.

The metabolism and anabolism, as results of chemical changes due to the intelligence conveyed through the sympathetic nerves, are instances of the Divine mind—the omnipotence and omnipresence of an overruling Director that is ever superintending all His works in righteousness everywhere. To think of chemical changes going on everywhere in our body all the time, directed by an unseen, unfelt power, is indeed marvelous to contemplate. The same sort of mysterious change goes on all of the time in all this beautiful world we live in, and in all things in the world—in everything. It is simply an effort, or an action, on the part of the Osteopath to remove whatever obtrudes itself in the way of these agencies which keep up these marvelous and mysterious changes that, in a normal condition, produce results seemingly so opposite, and yet so harmonious that there is harmony everywhere, and yet a constant building up and tearing down of the material that constitutes bone, muscle, ligament, cartilage, hair, nails, skin, nerve, artery, vein, and gland, and all of the other tissues of this body of ours. To assume the prerogative of being able to mend the ways of Deity is surely most presumptuous on

the part of the created. It is not the object of this book to explain the author's theological views, but to show that there is something that we call Deity that we recognize as supreme, and that wisdom manifests itself in the direction of each atomic cell in the body. That this organism, this wonderfully marvelous structure, is a machine, as some would have us believe, does not comport with facts. If we could but lift this science from environments, out of the association of ignorant pretenders, whose sole aim in life is to mystify, to relegate its discovery to some unlettered, ignorant "witch of Endor," or some spiritualistic medium, who claims control of some Dutch-Indian spirit of modern times, or perchance in the Olympiad days of long ago, and that it has come on down the ages, touching and enlightening the minds of an occasional "mediumistic forecaster," and that within a very few years past it was discovered that "dislocation of bones" caused all the pathological discrepancies that flesh is heir to! The principles belonging to this science are physiological, anatomical, easily understood, taught, and rational, and need no mysterious mantle to obscure its meaning or cover up its scientific results. To say that all of it is discovered is to deny science, literature, philosophy, progress in knowledge. To say that it, under its present status of development, can not be improved, or a better manner of applying it improved upon, is unreasonable, untrue.

THE NERVOUS SYSTEM AS A GUIDE TO DIAGNOSIS.

Beginning at the atlas—the junction of the occiput with the neck—we learn that we may start influences by manipulations that determine pathological conditions elsewhere, and that through a proper stimulation of terminal nerves we may control the action of various vital organs almost at will, depending largely on our knowledge of the nervous system. Here we impress the vaso-motor nervous system which seems to exercise such a marvelous influence over the peristalsis of

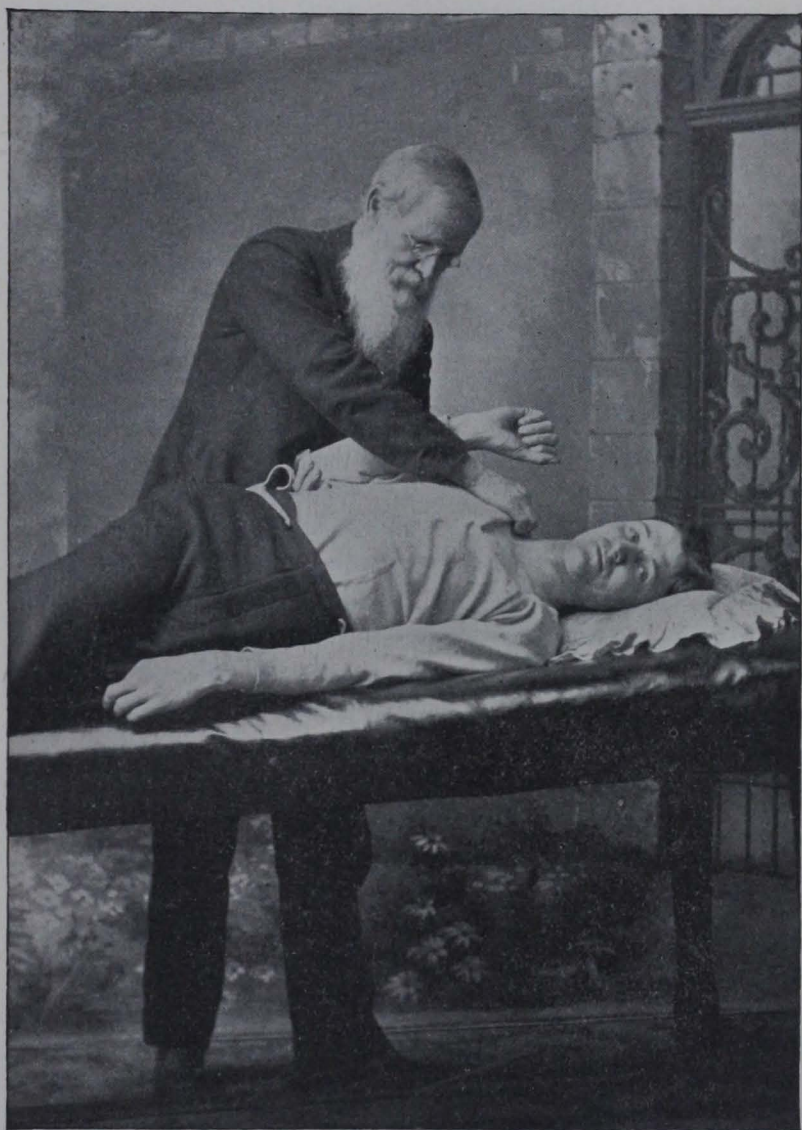
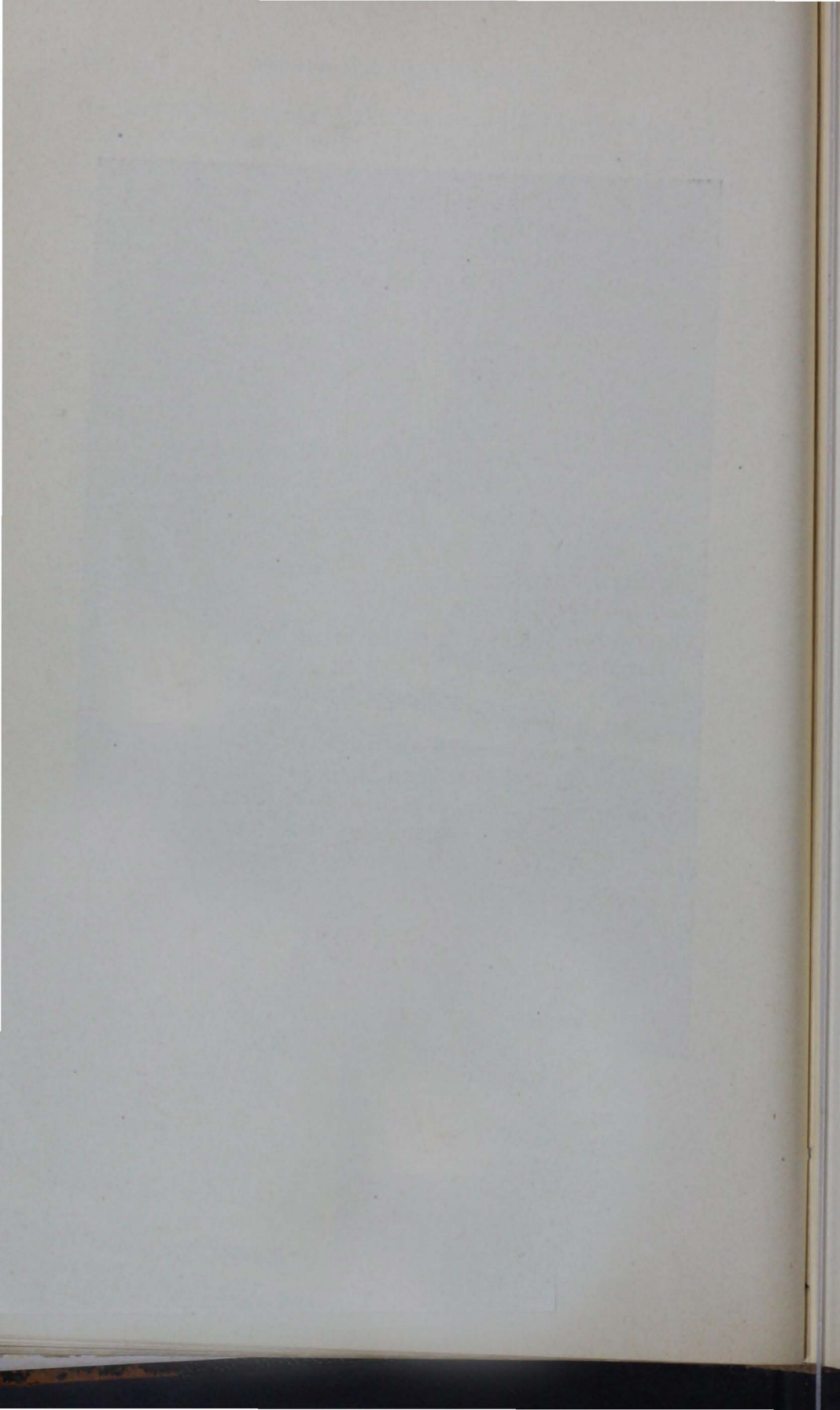


PLATE XIII.—Raising of the Clavicles on Table.



blood vessels, starting influences at the orifices of the heart, and thence along the muscular fiber of all of the arteries in every part of the body, completely controlling the caliber of the same, their peristalsis, the quantity and flow of all of the fluids in every department of our body; said to exercise two separate and distinct influences—afferent and efferent, conveying these to and from the heart; somehow influencing the whole system in such a manner as to convey intelligences to the brain of the exact status of every part, pain, pleasure, joy or sorrow, rejoicing or grief, health or disease. This is the most marvelous phenomenon imaginable. While it is supposed to be situated in what is called the cervical ganglia, experience has partially demonstrated, at least, that such an influence may be produced or achieved all along the spinal column, clear down to the last ganglia, at the lower end of the coccyx. Recognizing the all-important fact in this system, a complete supervision of the nervous system by this system called the sympathetic, and understanding that the filaments of this set of nerves begin in the calvarium and end everywhere in and on the surface of the body, controlling all action, motion and sensation, we can readily understand in a measure how we effect motion through these filaments (for we do not reach nerve centers directly in our manipulations). At the base of the brain, on the posterior aspect of the upper portion of the cervical region, there are collected together a greater number of sympathetic nerve filaments than in any other locality reachable with the hand or fingers, hence this becomes our vulnerable point, and here we start impressions that seem to control motor influences in every other; and, having learned this, we utilize this salient locality, and begin our treatments here. This division of the spinal nerve is recognized as the Vaso-Motor Nerve Center. It embraces four vertebral spaces—from the base of the skull to the lower margin of the fourth cervical vertebra. The next important division, beginning at the fourth cervical vertebra, and embracing all that part of the cervical region as far down as and

including the first dorsal, is what is commonly recognized as the Brachial Plexus. From this point down the dorsal region, including the twelfth dorsal vertebra, we have the Dorsal Plexus. Continuing from the lower margin of the twelfth along down the column to the upper end of the sacrum is embraced what is termed the Lumbar Plexus. The Sacral Plexus, of course, embraces the whole length of the sacrum to the coccyx. The Coccygeal Plexus, situated on the inside of the coccyx, is called the ganglion of impar. The importance of these divisions will appear in due time, later on.

CONSIDERATIONS EXTRAORDINARY.

The division of the nervous system, especially the spinal, into groups of plexuses, only serves the purpose of locality of distribution, assumed origin and effect of a stimulation in this or that particular locality somewhere else, or at some particular exit of a spinal nerve, or the particular cluster of sympathetic or other filaments. The main consideration that we desire to emphasize above all others is the control exercised by the sympathetic nervous system, whose filaments terminate everywhere in the system, and that influences are exerted at the ends of these nerves, and that these are executed through the motor nervous system and the sensory nervous system. The motor nervous system executes, as it were, the orders of the sympathetic; and the sensory nervous system feels impressions, and these impressions are conveyed to the headquarters through the sympathetic nervous system. Recognizing these principles, we are guided in our conclusions in reference to the condition or conditions of various parts of the body. There are no sensations without impression—pressure or contact at the ends of nerves. Knowing the origin, course and ending of a nerve, and knowing the office of a nerve, our diagnosis of conditions in the parts supplied thereby becomes clear to our vision. The nerves penetrating through muscles have no influence on that muscle, but the influence is exer-

cised by the nerves ending in the muscle. Understanding this fact, our diagnosis should be clear as to the nerves involved in a given pathological condition. And as the nervous system controls the circulation of the fluids, it may be seen that, should interference in the normal action or office of the nerves distributed to certain localities be made, the results could be fairly calculated. If, for instance, cold should contract muscular fibers through which a trunk or bundle of nerve fibers passed, impinging upon it so as to interrupt its normal action, the influence would be felt at the end of its distribution, and if a motor nerve, motion in the part to which it was distributed to a greater or less extent would be disturbed. If a sensory nerve, sensation would share a like effect; and if a sympathetic, there would be impairment of the function of both motor and sensory, for all action, as well as all sensation, is under the control of the sympathetic. If the communication at the ends of the nerves is cut off, failure of the execution of function ensues. To regard the nervous system in any other light, confusion involves our every effort to treat pathological conditions. For instance, suppose we recognize any nerve passing out of the spinal cord as one nerve, then, after it penetrates the muscular tissue a short distance, it divides, one branch terminating in one muscle and another in some other muscle (instance, the Anterior Thoracic). Would it not seem that the same origin is the common sense view to entertain? Our anatomists tell us that one branch arises from the outer cord and another from the inner cord. Suppose, now, that pain is found in the pectoralis major, our manipulations would be directed to the pressure on the branch that supplies the pectoralis muscle. There would be no use or propriety in our treatment of the branch that comes from a different locality, and that supplies another muscle. There is such a world of confusion in the knowledge of the distribution of the nerves, the branch idea, and the supply of tissue through which nerves pass, that no correct conclusion is arrived at as to pathological conditions, under-

standing of causes, or manner of treatment required. When it is understood that every filament, wherever distributed, has its origin in the brain, goes to a certain place, exercises a particular function, and that at the end of that nerve; and that every other nerve does the same thing, being distinct in identity, whether emerging through one foramen with a thousand or a million of other nerves, every one representing a distinct appointment, and filling a place in the animal economy, and there ends—the influence of pressure may be better understood. The nerves that supply one muscle do not supply another—never. If the reader gets this idea into the mind, Osteopathy will have some meaning to it. Otherwise it will present the same jargon to his mind as the medicine theories do. We recognize the fact that nerves originating in the corium may end anywhere along the line of the course pursued, whether it be the side of an artery or in the tissue at the remotest point of the body under or in the skin of the hallux.

There are, it will be understood, twelve places of origin in the brain for nerves, and each and every fiber has its distinct origin and ending—with no branches. We do not regard the nervous system as having branches, nor originating in ganglia, nor anastomosing. Everything in and controlling the physical organism has mind to superintend its every part, and that mind acts in harmony with itself in all other things, and until it is demonstrated that something else than nerves conveys through them the intelligence of a Divine Mind, I shall insist upon the truth of the statement made regarding the origin and distribution of the conductors of this intelligence. Take, for instance, the renal splanchnic nerve: Stimulation of sympathetic nerve filaments, reached at the twelfth dorsal vertebra, increased action of the kidneys ensues. Take the lower lumbar nerves: Stimulation of them upward lessens the irritability of the neck of the bladder. Special nerves control certain tissue, and certain individual localities. Certain filaments of the pneumogastric nerves control certain results

or generate certain secretions in the walls of the stomach, and certain others oversee the elimination of that secretion at particular suggestions or impulses—and so it is everywhere in the system. If this were not the case, pray tell how all of the elements are so perfectly manufactured in all of the glandular systems, and certain chemical constituents are removed from the blood in certain organs and certain others in other glands? In the salivary glands we have alkaline secretions formed, in the liver we have an alkaline, but in the stomach wall we have an acid secretion. These things do not happen. It is an every-moment occurrence from youth to old age.

It should be no trouble for the reader now to comprehend the philosophy of the cause of disease. Recognizing the fact that influences of intelligence are cut off anywhere along the line from beginning to terminus, being the only channel of communication, is it not plain that action beyond the cut-off is nil? The contraction of muscular fiber, direct pressure from without, or an immediate or gradual accumulation of blood or other fluids around the nerve or at the terminal, interferes with the function of the said nerve, and if a bundle of them in the same way, the effect is the same. And now, as it is the province of the sympathetic nervous system to control selection, assimilation, etc., and as this system controls circulation in the capillaries, as the blood passes through these tubes, there is the proper amount of and number of the elements drawn therefrom to supply the demand at that particular place so as to build up waste or worn-out tissue, and at the same time direct the elimination of the material that has served its purpose in the physical economy, through the lymphatic tubes into the venules or veins beyond the capillaries, thence to be conveyed back to the heart, and from there to the lungs for renovation. This constant round goes on in every part of the body all the time, in a normal condition. This is what we mean by a physiological condition—when there is no obstruction anywhere, undue pressure, contracture of muscular fiber or paralysis of nerve centers so as to arrest nerve

action. The philosophy involved in the circulatory apparatus, the nervous system that controls it, its anatomy and its physiology, make it easy to comprehend how pathological conditions are changed by manipulations, and the necessity of understanding what normal action is, so as to be able to correct abnormal conditions when they occur.

It is a notorious fact that somehow, through nerve influence, there are maintained in the system two antagonizing elements—the Positive and the Negative—and that these are generated in certain parts of the system for special and distinct purposes, and that when the union of these poles takes place, the current established, neutrality occurs, and the excess of the acid or the alkali so changed as to reinstate normal action in the parts disturbed or exercised thereby. Whether the scientific world has observed such a condition in the system or not, we have not seen an account of it, but that it is so our observations in numerous instances have abundantly demonstrated. We have an example in point in the pathological condition called colic. The excessive acid in the stomach contracts the muscular fibers so as to compress the sensitive nerves in the stomach walls, hence pain. This excessive acidity is due to incoordination of the pneumogastric nervous system and the splanchnic nervous system, one generating acid and the other alkaline secretions. Proper pressure—stimulation of the sympathetic filaments on the sides of the spinous processes over the splanchnics—corrects the acidity. Colic is instantaneously relieved by the proper manipulation in the splanchnic region.

THE ORDER OF THE SPINAL NERVES.

The First Cervical supplies the rectus lateralis, rectus capitis, anticus, posticus, sterno-hyoid, sterno-thyroid.

The Second and Third Cervicals supply the sterno-mastoid, trapezius, scaleni and neck, omo-hyoid and diaphragm. The sensations at the back of neck to vertex, occipitalis major,

minor, auricularis magnus, superficialis colli, and supraclavicular.

The Fourth Cervical supplies the diaphragm, deltoid, biceps, coraco-brachialis, supinator longus, rhomboid, supra and infraspinatus. The sensations from the fourth cervical to the second dorsal, reflected to the eye, on irritation of the muscles of the neck, anterior surface of the shoulder, outer arm, supraclavicular, circumflex, external musculo-cutaneous, and cutaneous nerve terminals.

The Fifth Cervical supplies the deltoid, biceps, coraco-brachialis, brachialis anticus, supinator longus, supinator brevis, deep muscles of the shoulder blade, rhomboid, teres minor, clavicular part of the pectoralis, and serratus magnus. The sensations are at back of shoulder and arm, outer side of arm and forearm to the wrist (subclavicular, circumflex, external cutaneous, posterior spinal branches).

The Sixth Cervical supplies the deltoid, biceps, brachialis anticus, subscapular, clavicular portion of the pectoralis, serratus magnus, triceps, pronators, rhomboid and latissimus dorsi. Reflex sensations from the fifth and sixth, that go to the triceps, affect also the elbow, producing extension of the forearm. That portion including the sixth to the eighth cervical supplies the posterior portion of the hand, and causes extension of hand.

The Seventh Cervical supplies the long head of the triceps, extensors of wrist and fingers, pronators of wrist, flexors of the wrist, subscapular, pectoralis (costal part), serratus magnus, latissimus dorsi, and teres major; causes closure of wrist and fingers. It is distributed to the hand, palm of the thumb, index and one-half of the middle finger, through internal cutaneous, radial, median and posterior spinal nerves.

The Eighth Cervical supplies the triceps (long head), flexors of the wrist and fingers, and the intrinsic hand muscles. Through the internal cutaneous and ulnar, the hand, back and palm, and inner border of the forearm.

The First Dorsal supplies the extensors of the thumb,

intrinsic hand muscles, thenar and hypothenar muscles, and the sensations are chiefly on the inner side of forearm to near the axilla, through the internal cutaneous, and lesser internal cutaneous or nerve of Wrisberg.

The Second Dorsal sends sensations to inner side of arm, near and in axilla, through the intercosto-humeral.

The Second to Twelfth Dorsal supplies muscles of the back and abdomen, erector spinae. The Fourth to Seventh Dorsal supplies the epigastric region, and from the seventh to the eleventh the abdominal region. There are vasomotor centers from the second dorsal to the second lumbar region. The skin of the chest and abdomen, in bands, running around and downward, correspond to spinal nerves. The upper gluteal region is supplied by the intercostals and dorsal posterior nerves—with sensations.

The First Lumbar nerve goes to the cremasteric, with third lumbar supplying the inner side of the thighs, and the Second Lumbar supplies the vastus internus muscle, and with the first, through the ilio-hypogastric and ilio-inguinal, supplies the skin over the groin, and the second supplies the outer, upper and front of the thigh, through the genito-crural and external cutaneous.

The Third Lumbar and the Fourth supply the sartorius flexors of the thigh, extensors of the knee, and abductors of the thigh, and through the gluteal send sensations to the front and side of the thigh (outside), and inner side of the foot and leg through the internal cutaneous and long saphenous and obturator.

The Fifth Lumbar supplies the outward rotators, flexors of knee and ankle, peronei muscles and extensors of the toes, and through the external popliteal, external saphenous, musculo-cutaneous and plantar exerts an influence in these parts.

The First and Second Sacral supply the calf muscles, glutei, peronei, extensors of the ankle and small muscles of the foot; reflexes to the plantar region come from the fifth lumbar, and second sacral reflex influences to the back of

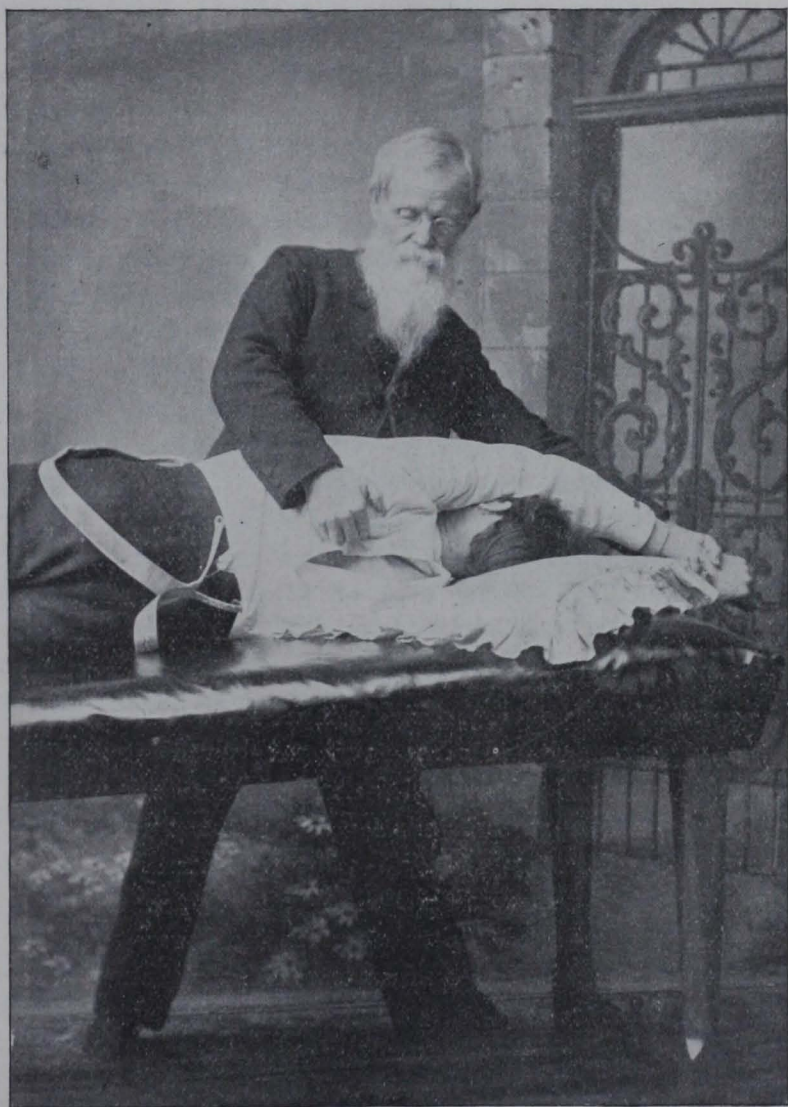
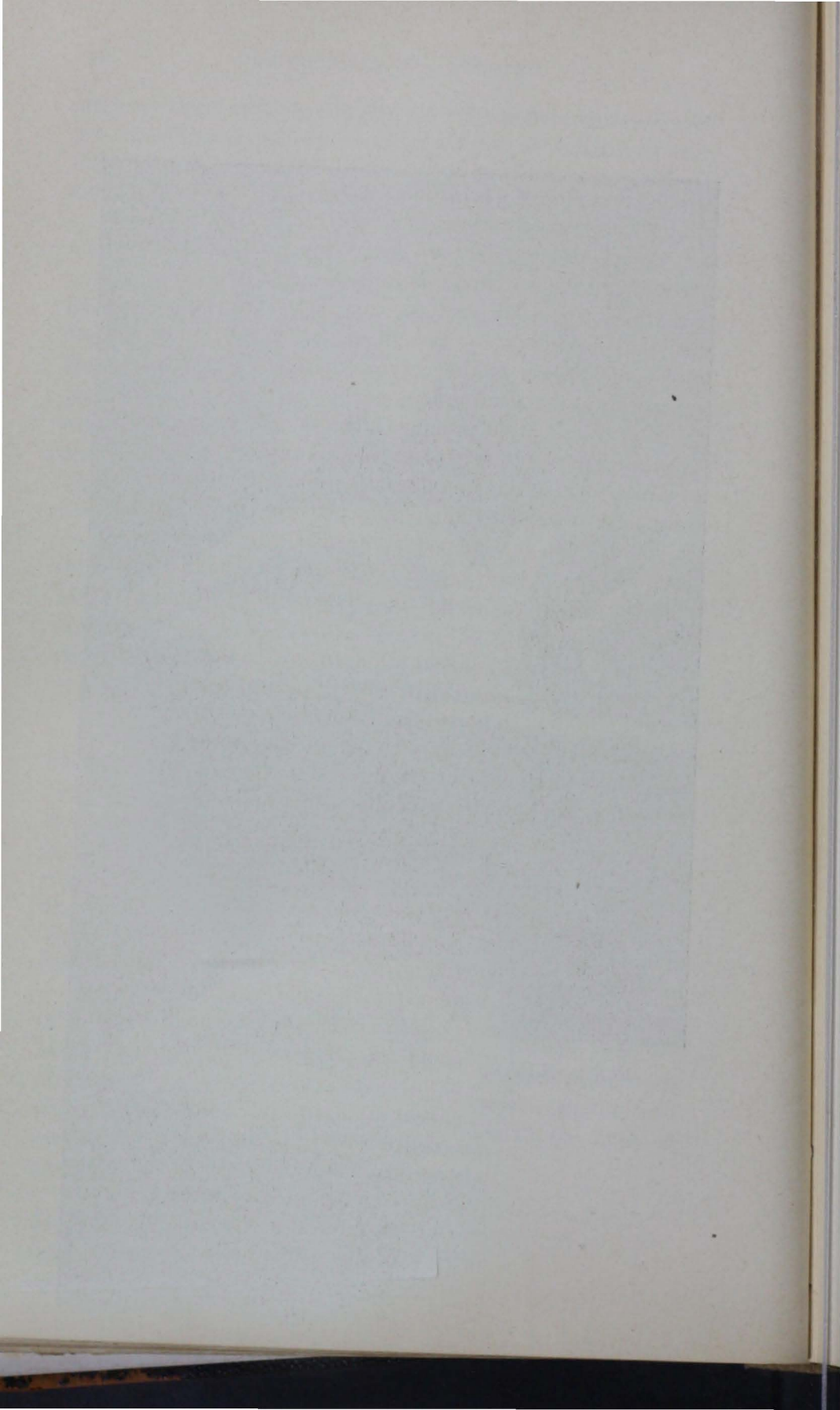


PLATE XIV.*a.*—Arm Movement, Patient on Table.



buttock, side of leg and ankle, sole of the foot and dorsum of foot.

The Third, Fourth and Fifth Sacral send filaments to the perineal, muscles of the bladder, rectum and external genital, and are supposed to be the genital center, vesical center and anal center, sending to these parts the small sciatic, pudic, inferior hemorrhoidal and inferior pudendal.

The above is all that the anatomies and physiologists teach on this important system, so far as reflexes are concerned, and origin of the nervous system that controls and regulates sensation and reflexion.

The Osteopathic practice includes all these, but has advanced greatly in regard to the controlling influence the nervous system exerts, and does not regard simply the reflexes so much as the controlling influences of the sympathetic nervous system, in superintending and directing repair and waste, and its supreme control over every tissue in our body. What therapeutical benefit are the sensations in the cure of disease? The thing to do is to remove abnormal obstructions and permit normal and uninterrupted action throughout every department, and regard reflexes as simply the influences brought about as suggestions and declarations of the sensory nervous system as to its impingements, etc., in the great economy of nerve influence. Our interest as Osteopaths depends solely upon the knowledge of the sympathetic nerves.

CERVICAL AND DORSAL NERVES.

The first cervical nerve and the second cervical ganglion embrace the spinal, cervical plexus, hypoglossus, and the glosso-pharyngeal.

Between the second and the third cervical vertebrae we have the anastomosis (apparent) of the superior cervical ganglia, with first cervical pair.

Between the second and third cervical vertebrae we have the superior cervical ganglia, connecting with the third, the

pharyngeal and carotid filaments (branches) of the superior cervical ganglion, pharyngeal and inter-carotid plexus.

At the second, embracing the second, third and fourth to the fifth, we have the vaso-motor ganglia, which control the circulation.

At the third cervical begin the phrenic ganglia, embracing the fourth and fifth cervical; and between the third and fourth we have the pharyngeal and inter-carotid plexus and the laryngeal branches, the right pneumogastric and the vagus.

At the fourth cervical we have the phrenic, the superior cardiac nerves, cervical plexus, and communicating fibers (branches) to the superior and middle cervical ganglia. A communicating branch or filament from the fourth cervical unites (apparently in the same sheath) with the fifth to begin the brachial plexus. A set of nerves from the fourth connects the cervical with the brachial, and it is supposed that the vaso-motor takes in the cervical from the second to the seventh.

Between the fifth and sixth cervical we have the cardiac plexus. Between the sixth and seventh we have the inferior cervical ganglia, embracing the sixth and seventh.

At the first dorsal we have the center for the lungs—the thoracic ganglia of the sympathetic nerves.

At the second dorsal we have the cardiac plexus and the nerve center for the ciliary plexus of nerves that control the ciliary muscles.

At the fourth, the ganglia that control the pyloric end of the stomach—and some intercostal nerves and vessels.

Between the fifth and sixth we have the pulmonary veins and the vaso-motor to the arm.

At the fourth and fifth dorsal vertebrae we have the center of abdominal brain (going to it).

The center that controls heat, chills, etc., is at the eighth dorsal, taking in the seventh, eighth and ninth dorsal for chills.

Between the eighth and ninth, the œsophagus, right pneumogastric and vagus nerves.

At the ninth dorsal we control fever. Between the ninth and tenth we control the blood supply to the ovaries.

At the tenth dorsal we treat for pain in ovaries.

At the eleventh and twelfth dorsals we have the renal splanchnics, and treat there for the diaphragm, the kidneys, liver, diarrhea and flux. For these affections treat up from the sacro-lumbar junction. Also for nocturnal enuresis and hydrosis.

At first lumbar we have the renal plexus. At the second the spermatic plexus. From the second lumbar to the fourth lumbar we have the pelvic plexus, and at the second the parturient plexus. At the fourth we have the defecation ganglia, that control the action of the lower bowels. The center of the pelvic brain is at the fifth lumbar. At the fourth is the superior aortic plexus.

The fifth is the hypogastric plexus, and controls the vena cava inferior.

The third sacral controls the sphincter of the bladder (?).

The fourth sacral, the vagina, relaxing it.

The fifth sacral controls the levator ani muscle and external sphincter muscle.

The above is what they teach at the American School of Osteopathy.

On the following pages we reproduce diagrams and classifications of the nervous system, as outlined by S. O. L. Potter, M.D.

THE SPINAL NERVES, 31 PAIRS.

8 CERVICAL, 12 DORSAL, 5 LUMBAR, 5 SACRAL, 1 COCCYGEAL.

N. B.—Read from the Black Type outwards to left and right.

to muscles and skin of back.	{ <i>Ext. Br.</i> <i>Int. Br.</i> }	POST. DIV.	{ Each Spinal Nerve divides into }	{ ANT. DIVISION, to Plexuses, etc. }
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Post. Div. of 2d N. Post. M. of head, etc. Complexus Muscle. Skin of occiput.	{ <i>Ext. Branch</i> supplying }	POST. DIV.	{ 1st Cervical Nerve. Sub-occipital }	{ ANT. DIV. { <i>Brs. (3) to Recti cap. Muscles.</i> <i>Commun'g</i> { 2d Cerv. N. <i>Brs. to</i> { Vagus N. Hypogl. N. Sup. Cerv. Gang. <i>Br. to Occip-atloid artic'n.</i> }
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Splenius. Cerv. ascendens. Transv.-colli. Trach-mastoid. Complexus.	{ <i>Ext. Branch</i> supplying }	POST. DIV.	{ 2d Cervical Nerve. }	{ ANT. DIV. { <i>Fil. to Sterno-mast. M.</i> <i>Asc. Br. to 1st Cerv. N.</i> <i>Desc. Br. to 3d Cerv. N.</i> <i>Fil. to Commun. N. N.</i> <i>Occipitalis Minor Nerve.</i> }
to 1st Cerv. N. Skin of occiput. Auricular.	{ <i>Int. Br. or</i> <i>great Occip.</i> }			

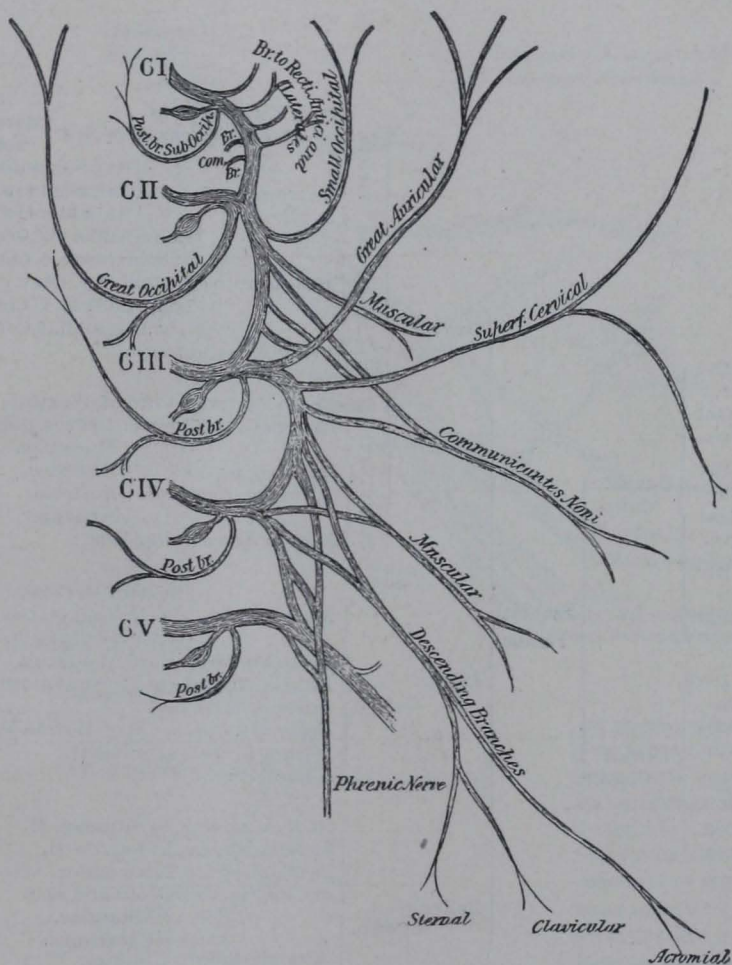
Splenius. Cerv. ascend. Trans. colli. Trach-mast.	{ <i>Ext. Br.</i> supplies }	POST. DIV.	{ 3d Cervical Nerve. }	{ ANT. DIV. { <i>Auric. Magnus.</i> <i>Superf. Cervical.</i> <i>Br. to 2d Cerv. N.</i> <i>Br. to Spinal-ac.</i> <i>Fil. to 4th Nerve.</i> <i>Fil. to Lev. ang. scap.</i> <i>Supra-clavicular.</i> <i>Fil. to Com. N. N.</i> <i>Fil. to Phrenic N.</i> }
Integument of occiput.	{ <i>Int. Br.</i> to supply }			

Muscles of the back.	{ POST. DIV. { 4th Cervical Nerve. }	{ ANT. DIV. { <i>Fil. to 3d Cerv. Nerve.</i> <i>Fil. to 5th Cerv. N.</i> <i>Fil. to Phrenic N.</i> <i>Fil. to Scalenus medius.</i> <i>Fil. to Supra-clavic. N.</i> }
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Anterior Branches of 1st Cerv. N. 2d Cerv. N. 3d Cerv. N. 4th Cerv. N.	{ Cervical Plexus. }	{ Superficial Br. { <i>Ascending Set (5) to head and shoulder.</i> <i>Descending Set (3) Sternal, Clavic. Acrom.</i> <i>Internal Set.</i> <i>External Set.</i> }
		{ <i>Commun- icating to</i> { Vagus. Hypogl. Symp. <i>Muscular.</i> COMMUNIC. NONI NERVE. PHRENIC NERVE. <i>Muscular (4).</i> <i>Comm'g to Spinal-ac. N.</i> }

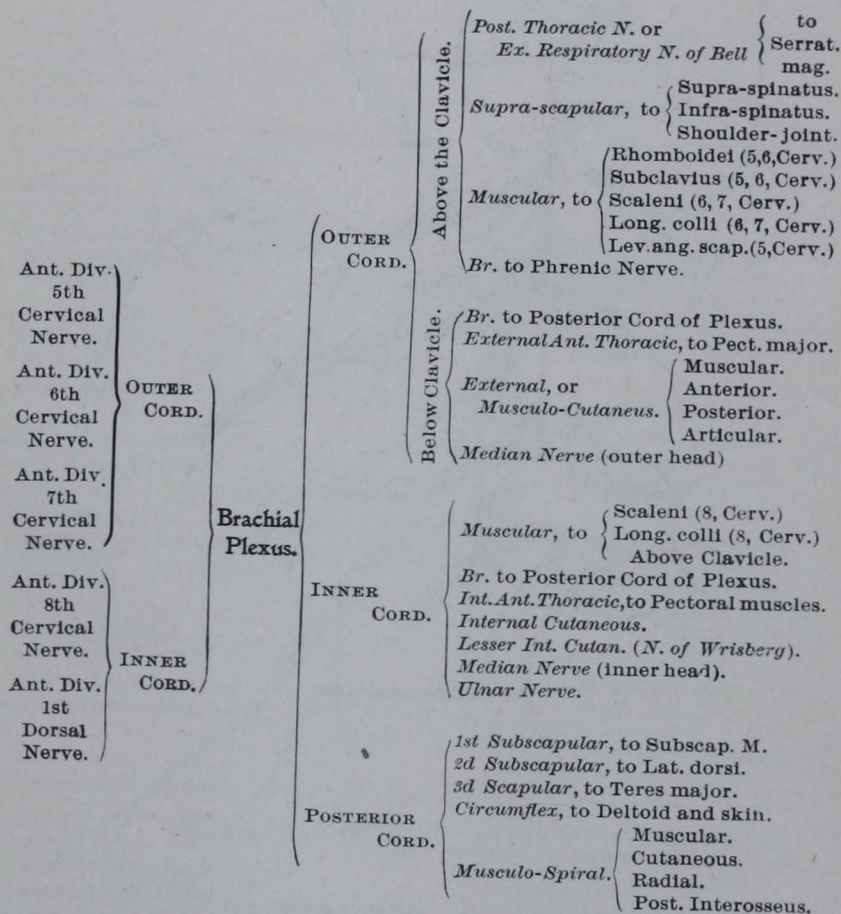
THE SPINAL NERVES.

Cervical Plexus.



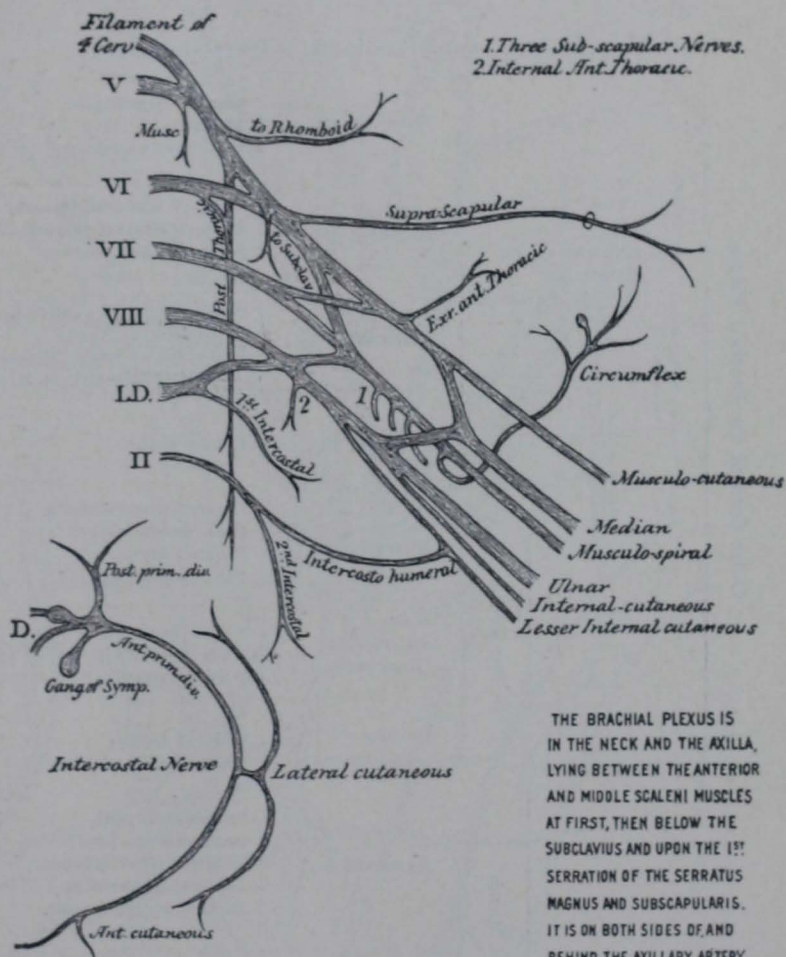
THIS PLEXUS { LIES UPON THE { SCALENUS MEDIUS AND } MUSCLES.
 THE CERVICAL { IS COVERED BY THE STERNO-CLEIDO-MASTOID MUSCLE.

THE BRACHIAL PLEXUS.



THE SPINAL NERVES

Brachial Plexus



THE BRACHIAL PLEXUS IS IN THE NECK AND THE AXILLA, LYING BETWEEN THE ANTERIOR AND MIDDLE SCALENI MUSCLES AT FIRST, THEN BELOW THE SUBCLAVIUS AND UPON THE 1ST SERRATUS OF THE SERRATUS MAGNUS AND SUBSCAPULARIS. IT IS ON BOTH SIDES OF, AND BEHIND THE AXILLARY ARTERY IN ITS 2ND PORTION, EXTERNAL THERETO IN ITS 1ST PORTION.

NERVES OF THE UPPER EXTREMITY.

TERMINAL BRANCHES OF THE BRACHIAL PLEXUS.

Outer Cord of the Brachial Plexus.

(1) EXTERNAL ANTERIOR THORACIC, to Pectoralis major.

Muscular, to { Coraco-brachialis,
Biceps.
Brachialis anticus.

(2) EXTERNAL OR
MUSCULO-
CUTANEUS.

Anterior Br. { Skin of forearm (front)
Skin of ball of thumb.
Joins Radial Nerve.

Posterior Br. { Skin of forearm (back).
Joins Radial Nerve.
Joins Ext. Cutan. Branch of
Musculo-spiral. N.

Articular Br. to { Elbow joint.

Muscular, to { Pronator radii teres.
Flex. carpi rad.
Palm. longus.
Flex. subl. digit.

Anterior Interosseous, to { Flex. long. poll.
Flex. prof. digit. (Ext. $\frac{1}{2}$).
Pronat. quadrat.

Palmar Cutaneous. { Skin of palm.
Skin of ball of thumb.

(3) MEDIAN.

In Forearm.

In the Hand.

External Br. { to Abduct. poll.
to Opponens poll.
to Flex. brev. poll.
Digital, to thumb.
Digital, to 1st finger.

Internal Br. { *Digital*, to contiguous sides
of index, middle and ring
fingers.
Filaments to two outer Lum-
bricales.

[illegible]

Pouter, del

THE DORSAL NERVES.

N. B.—Read from the Black Types outwards to left and right.

Transv. colli.	} <i>Ext. Brs.</i> to	} Each 6 Upper Dorsal Nerves.	} ANT. DIV. <i>Thoracic</i> <i>Intercostals.</i>	} <i>Muscular.</i>	} <i>Intercos.</i> <i>Tri. Ster.</i>
Longis. dorsi.					
Trachelo-mast.					
Levat. costar.					
Sacro-lumbal.					
Accessorius.					
Semi-sp. dorsi	} <i>Int. Brs.</i> to	} Each 6 Lower Dorsal Nerves.	} ANT. DIV. <i>Thoracic</i> <i>Intercostals.</i>	} <i>Lateral</i> <i>Cutaneous.</i>	} <i>Skin of</i> <i>Chest,</i> <i>Breast,</i> <i>Side,</i> <i>Back.</i>
Multif. Spinæ.					
Skin of back.					
Same as above.	} <i>Ext. Brs.</i>	} Each 6 Lower Dorsal Nerves.	} ANT. DIV. <i>or</i> <i>Thoracico-</i> <i>abdominal</i> <i>Intercostals.</i>	} <i>Muscular.</i>	} <i>Intercos.</i> <i>Abdom. M.</i>
Skin on back.					
Same as above.	} <i>Int. Brs.</i>	} Each 6 Lower Dorsal Nerves.	} ANT. DIV. <i>or</i> <i>Thoracico-</i> <i>abdominal</i> <i>Intercostals.</i>	} <i>Lateral</i> <i>Cutaneous.</i>	} <i>Skin of</i> <i>Abdomen,</i> <i>etc.</i>
No br. to skin.					
				} <i>Anterior</i> <i>Cutaneous.</i>	} <i>Rectil. M.</i> <i>Skin of</i> <i>Abdomen.</i>

THE LUMBAR AND SACRAL NERVES.

An
External Branch,
sending filaments
to the Erector
spinæ and
Intertransversales
muscles, and the
skin of the gluteal
region, posteriorly.

An
Internal Branch,
sending filaments
to the Multifid.
spinæ, and skin
over vertebræ of
spinal column.

The Posterior Division of each of these Nerves has	1st	Lumbar.	{	Ant.	Div.	{	Nos. 1, 2, 3, Comm. Br. to 2d Lum.
	2d	Lumbar.	{	Ant.	Div.	{	Nos. 3, 4, 5, Comm. Br. to 3d Lum.
	3d	Lumbar.	{	Ant.	Div.	{	Part of 5, 6, 7, Comm. Br. to 4th Lum.
	4th	Lumbar.	{	Ant.	Div.	{	Part of 5, 6, 7, Lumbo- Sacral Cord to 5th Lum.

Lumbar Plexus.

- (1) Ilio-hypogastric.
- (2) Ilio-inguinal.
- (3) Genito-crural.
- (4) Ext. Cutaneous.
- (5) Ant. Crural.
- (6) Obturator.
- (7) Accessory
Obturator
(when present).

An
External Branch,
forming loop on
sacrum and great
Sac-Sciatic. lig to
supply skin over
glutei.

An
External Branch,
to Multifidus spinæ
and back part of
coccyx
(the two lower
nerves).

The Posterior Division of each of these Nerves has	5th	Lumbar.	{	Ant.	Div.	{	Joins the Lumbo- Sacral Cord.
	1st	Sacral.	{	Ant.	Div.	{	Joins the Lumbo- Sacral Cord and 2d Sacral.
	2d	Sacral.	{	Ant.	Div.	{	Joins with 1st Sacral.
	3d	Sacral.	{	Ant.	Div.	{	Joins with 2d Sacral and part of the 4th.
	4th	Sacral.	{	Ant.	Div.	{	Br. to Plex- us, Visc. Brs. Mus. Brs., FIL. to 5th.

Sacral Plexus.

- (1) Super. Gluteal.
- (2) Muscular Brs.
- (3) Small Sciatic.
- (4) Great Sciatic.
- (5) Pudic.
- (6) Articular.

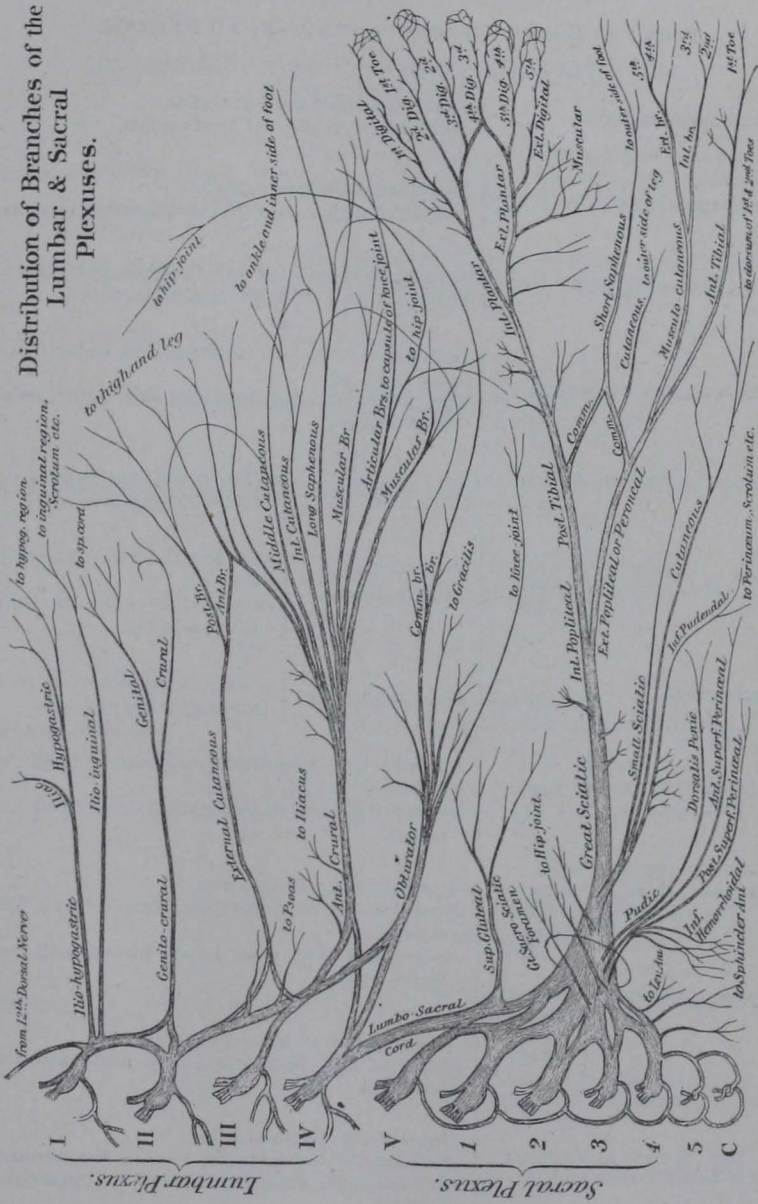
Are below the
Multif. spinæ,
join together
in loops over
back of sac-
rum, sending
filaments
to skin.

Post. Div.	5th	Sacral.	{	Ant.	Div.	{	Br. to skin of coccyx. Br. to Coccygeus M. Br. to Coccygeus Nerve.

Post. Div.	Coccygeal.	{	Ant.	Div.	{	A delicate filament, going to skin, over coccyx.

THE SPINAL NERVES.

Distribution of Branches of the Lumbar & Sacral Plexuses.



Potter, del.

DISTRIBUTION OF THE BRANCHES OF THE
SACRAL PLEXUS.

- (1) SUPERIOR GLUTEAL, . . . $\left\{ \begin{array}{l} \text{Sup. Br. to the Gluteus medius and minimus.} \\ \text{Inf. Br. } \left\{ \begin{array}{l} \text{to the Gluteus medius and minimus.} \\ \text{to the Tensor vaginæ femoris.} \end{array} \right. \end{array} \right.$
- (2) MUSCULAR BRANCHES, to $\left\{ \begin{array}{l} \text{Pyriformis, Obturator internus, the two Gemelli, and the Quadratus femoris muscles.} \end{array} \right.$
- (3) ARTICULAR BRANCHES, to the hip-joint.
- (4) SMALL SCIATIC. $\left\{ \begin{array}{l} \text{Inf. Gluteal, } \left\{ \begin{array}{l} \text{Gluteus maximus muscle.} \\ \text{Skin of side of penis, or vulva.} \end{array} \right. \\ \text{Inf. Pudendal, } \left\{ \begin{array}{l} \text{Skin of upper and inner thigh, and of} \\ \text{scrotum or labium.} \end{array} \right. \\ \text{Cutaneous, } \left\{ \begin{array}{l} \text{Ascending, to Skin over Glutei.} \\ \text{Descending, to Skin of posterior thigh.} \end{array} \right. \end{array} \right.$
- (5) GREAT SCIATIC. $\left\{ \begin{array}{l} \text{Articular, } \left\{ \begin{array}{l} \text{to the hip-joint.} \end{array} \right. \\ \text{Muscular, to } \left\{ \begin{array}{l} \text{Adductus magnus, Biceps.} \\ \text{Semi-membranosus, Semi-tendinosus.} \end{array} \right. \\ \text{EXTERNAL POPLITEAL OR PERONEAL. } \left\{ \begin{array}{l} \text{Terminal Branches.} \\ \text{INTERNAL POPLITEAL NERVE.} \end{array} \right. \left. \begin{array}{l} \text{(See page 190.)} \end{array} \right. \end{array} \right.$
- (6) PUDIC, . . . $\left\{ \begin{array}{l} \text{Perineal, } \left\{ \begin{array}{l} \text{Superficial Perineal, } \left\{ \begin{array}{l} \text{to Skin of anus, scrotum,} \\ \text{penis and labia, and the} \\ \text{Sphincter ani muscle.} \end{array} \right. \\ \text{Muscular, to perineal muscles.} \end{array} \right. \\ \text{Inferior Hemorrhoidal, } \left\{ \begin{array}{l} \text{to Sphincter ani muscle.} \\ \text{to Skin of anal region.} \end{array} \right. \\ \text{Dorsal of Penis, } \left\{ \begin{array}{l} \text{Skin of dorsum of penis.} \\ \text{Br. to Corpora cavernosa.} \end{array} \right. \end{array} \right.$

The Sacral Plexus lies in the pelvis upon the Pyriformis muscle, and is covered by the Pelvic fascia, and the Sciatic and Pudic arteries.

THE SYMPATHETIC NERVOUS SYSTEM.

Ganglion of Ribes.

{ On the Anterior Communicating Artery.
 { In it begins the double chain of gangliated cords enumerated below.

<i>External Branches to join the 1st, 2d, 3d, 4th Cervical Nerves.</i>	Superior Cervical Ganglion.	<i>Sup. Brs.</i>	<i>Some to Pneumogastric, Glossopharyngeal and Hypoglossal Nerves.</i>
			<i>Ascend. Br.</i> <ul style="list-style-type: none"> <i>Ext Br. forms Carotid Plex.</i> <i>Int. Br. forms Cavernous Plex. along. Int. Carotid Artery.</i>
<i>Ext. Brs. to 5th and 6th Cervical Nerves.</i>	Middle Cervical Ganglion.	<i>Int. Brs.</i>	<i>Anterior Branches, to Plexus on Ext. Carotid Artery.</i>
			<ul style="list-style-type: none"> <i>Pharyngeal, to Pharyngeal Plexus.</i> <i>Superior Cardiac Nerve, to Cardiac Plexus, goes to Deep Pl. on right side, to Superficial Pl. on left side of body.</i>
<i>Ext. Brs. to 7th and 8th Cervical Nerves.</i>	Inferior Cervical Ganglion.	<i>Int. Brs.</i>	<ul style="list-style-type: none"> <i>Filaments along Inf. Thyroid Art. to Thyroid body and Larynx.</i> <i>Mid. Cardiac Nerve, to Deep Cardiac Plexus.</i>
			<ul style="list-style-type: none"> <i>Filaments along Vertebral Art. to cranium.</i> <i>Inf. Cardiac Nerve, to Deep Cardiac Plexus.</i>
<i>Ext. Brs. to 12th Dorsal Nerve.</i>	12th Thoracic Ganglia.	<i>Int. Brs.</i>	<ul style="list-style-type: none"> Upper 5th or 6th to Aorta and Vertebral column. 2d, 3d and 4th to Post. Pulmonary Plexus. Lower 6th from the 3d Splanchnic Nerve, thus— 6th-10th, <i>Great Splanchnic</i>, to Semilunar Gang. 10th-11th, <i>Small Splanchnic</i>, to Coeliac Plexus. 12th, <i>Smallest Splanchnic</i>, to Renal Plexus.
<i>Ext. Brs. to Lumbar Nerves.</i>	4th Lumbar Ganglia.	<i>Int. Brs.</i>	<ul style="list-style-type: none"> Some to Aorta Plexus. Some to Hypogastric Plexus.
<i>Ext. Brs. to Sacral Nerves.</i>	4th Sacral Ganglia.	<i>Int. Brs.</i>	<ul style="list-style-type: none"> to Pelvic Plexus. to Plexus of Middle Sacral Artery.
Coccygeal G., or Ganglion Impar.		In which ends the double chain of gangliated cords enumerated above, and called The Sympathetic Nervous System.	

DISTRIBUTION OF THE NERVES OF THE LEG AND FOOT.

[TERMINAL BRANCHES OF THE GREAT SCIATIC.]

- | | | | |
|--|---|--|---|
| EXTERNAL
POPLITEAL
OR
PERONEAL
NERVE. | { | (1) <i>Articular</i> (3), distributed to the knee-joint. | |
| | | (2) <i>Cutaneous</i> (2 or 3), to skin of leg, exteriorly and posteriorly. | |
| | | (3) ANTERIOR
TIBIAL. | <i>Muscular</i> , to { Front muscles of leg.
Peroneus tertius. |
| | | | <i>External Br.</i> { Extensor brevis digitorum.
Tarsal articulations. |
| INTERNAL
POPLITEAL
NERVE. | { | (4) MUSCULO-
CUTANEOUS. | <i>Internal Br.</i> { Skin of contiguous sides of great
and 2d toes. |
| | | | <i>Muscular</i> , to { Peroneus longus and brevis. |
| | | (3) EXT. SAPHENOUS, | <i>External Br.</i> { Skin, outer side of foot and
ankle.
Skin, contiguous sides 3d, 4th
and 5th toes. |
| | | | <i>Internal Br.</i> { Skin, inner side of foot and
ankle.
Skin, contiguous sides 2d and 3d
toes and inner side of great toe. |
| | { | (1) <i>Articular</i> (3), to knee-joint. | |
| | | (2) <i>Muscular</i> , to Gastrocnemius, Plantaris, Soleus and Popliteus. | |
| | | (3) EXT. SAPHENOUS, | Formed by a filament from each of the
Popliteal nerves, to skin of outer side
of the foot and little toe. |
| | | POSTERIOR
TIBIAL. | <i>Muscular</i> , to { Flexor longus pollicis, Flexor
longus digitorum. Tibialis
posticus. |
| <i>Plantar Cutaneous</i> , to skin of heel and sole. | | | |
| | { | INTERNAL
Plantar. | <i>Digital</i> , to skin, $3\frac{1}{2}$ inner toes. |
| | | | <i>Muscular</i> , to flexors, etc. |
| | | EXTERNAL
Plantar. | <i>Articular</i> , to tarsus. |
| | | | <i>Cutaneous</i> , to sole of foot. |
| | { | EXTERNAL
Plantar. | <i>Muscular</i> , to Flexor accessorius |
| | | | <i>Superficial</i> , { to $1\frac{1}{2}$ outer toes.
Flexor brevis min. dig.
4th Interosseous. |
| | | DEEP BR. | <i>Deep Br.</i> { 3d and 4th Lumbric. |
| | | | <i>Rest of Interossei.</i> |