Massage and the original Swedish movements : their application to various diseases of the body / by Kurre W. Ostrom.

MASSAGE AND THE SWEDISH MOVEMENTS

OSTROM.

MASSAGE

AND

SWEDISH MOVEMENTS.

OSTROM.

MASSAGE

AND THE

ORIGINAL SWEDISH MOVEMENTS;

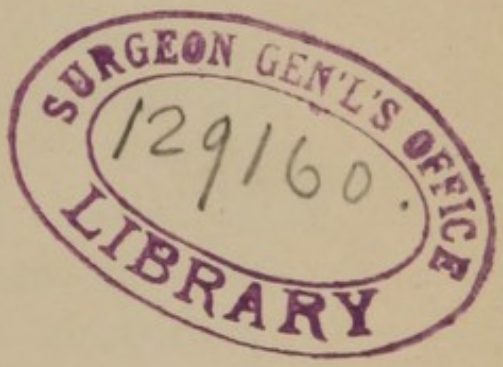
THEIR APPLICATION TO VARIOUS DISEASES OF THE BODY.

BY

KURRE W. OSTROM,

FROM THE ROYAL UNIVERSITY OF UPSALA, SWEDEN; INSTRUCTOR IN MASSAGE AND SWEDISH MOVEMENTS IN THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA AND THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE; LATE INSTRUCTOR IN THE PHILADELPHIA LYING-IN CHARITY HOSPITAL AND SCHOOL FOR NURSES, ETC.

ILLUSTRATED.



PHILADELPHIA:

P. BLAKISTON, SON & CO.,

1012 WALNUT STREET.

1890.

PRESS OF WM. F. FELL & CO.,
1220-24 SANSOM STREET,
PHILADELPHIA.

PREFACE.

As the tendency of modern therapeutics is to cure disease by the application of the laws of Hygiene, the author feels that, in presenting this little work to the medical profession and to those especially interested in the subject, he will be supplying in English a treatise that has long been needed.

It is true several books have been written on this subject by physicians, but none of them have been sufficiently explicit in telling how to perform the various manipulations, or the cases which may be benefited by the movements.

This work endeavors to show how the movements are to be applied to all parts of the body, and also to show for what diseases such movements are indicated.

I am very much indebted to Drs. Charles K. Mills and H. Augustus Wilson for their kindness in giving me ample opportunity to practically demonstrate the Swedish methods of Massage and Movements, at the Philadelphia Polyclinic and College for Graduates in Medicine.

I am also under obligations to several other professors of the same institution for valuable information received.

In describing the various movements and their influence upon the different parts of the body, I have consulted such well-known Swedish authors as *Wretlind*, *Hartelius*, *Kleen*, etc.

It is hoped that this little text-book will be a practical and valuable addition to what has already been published on the subject of mechano-therapy.

THE AUTHOR.

250 North 15th Street,
Philadelphia, December, 1889.

CONTENTS.

	PAGE
I. Definition,	8
II. Introduction,	9
III. Exercise,	13
IV. The System of Movements,	17
V. The Massage Treatment,	17
Introductory, General and Local,	31
VI. The Various Movements,	41
Rotation,	41
Pressing and Shaking,	44
Flexion and Extension,	45
Separating and Closing,	46
Bending,	47
Raising,	48
Pulling,	49
Turning,	50
Depression and Elevation,	51
VII. Positions,	53
VIII. The Physiology of the Movement Treatment,	55
IX. Mechanical Action of Muscles,	60
X. The Application of Massage and the Swedish Movements to Various Diseases of the Body,	64
General Weakness,	64
Anæmia,	65
Hysteria,	66
Chorea,	66
Plethora,	68

PAGE

Insomnia, ... 68
Apoplexy, ... 69
Tabes, ... 70
Neuralgias, ... 70
Affections of the Respiratory Organs, ... 71
Emphysema, ... 72
Catarrh of the Lungs, ... 73
Pharyngitis and Laryngitis, ... 73
Consumption, ... 74
Diseases of the Heart, ... 74
Hypertrophy of the Heart, ... 75
Diseases of the Digestive Organs, ... 76
Dyspepsia, ... 76
Habitual Constipation, ... 77
Hemorrhoids, ... 78
Enlargement of the Liver, ... 79
Diabetes, ... 79
Uterine Affections, ... 80
Amenorrhœa, ... 81
Dysmenorrhœa, ... 81
Rheumatism, ... 82
Lumbago, ... 82
Stiff Neck, ... 82
Gout, ... 83
Progressive Muscular Atrophy, ... 83
Lateral Curvature of the Spine, ... 84
Diseases of the Joints: 87
Sprains, ... 87
Synovitis, ... 88
Fractures, ... 89
Deformities of the Feet, ... 90
Affections of the Eye, ... 90
" " Ear, ... 91
XI. General Remarks, ... 92
XII. The Massage Treatment in America, ... 94

DEFINITION.

The Swedish Remedial Gymnastics, or Movement Treatment, as it is termed in America, is a treatment by different systematic manipulations or movements, the aim of which is to invigorate or restore parts that may have become diseased or that have lost their proper function.

MASSAGE

AND

THE SWEDISH MOVEMENTS.

INTRODUCTION.

Manual Treatment for disease has to a certain extent existed since the creation. Man had, by instinct, acquired the art of manipulation long before Nature yielded her secrets in medicine. This is still the practice among many nations. In Sweden even at the present time, certain manipulations are used among the peasants for cramps, dyspepsia, swellings etc. The Swedes seem never to have lost the art,—but recently revived in other countries.

Amiot and Dally speak of a perfect system of gymnastics among the Chinese three thousand years before the Christian era. They maintained that gymnastics, by preventing stagnation, pro-

duced an even and harmonious movement of the fluids in the human body, which is necessary to health. Not only did they use gymnastics to preserve health, but they also had a thorough knowledge of their therapeutical effects. From each of the natural positions they placed the body and limbs in certain derivative positions, which modified the movement of the fluids and were, of course, important in different diseases.

The priests of Egypt used some manipulation in the form of kneading and friction for rheumatic pains, neuralgias and swellings.

The Hindoos, also, had some knowledge of their therapeutical importance; but the masses were soon mystified by the priests, who, by incantations and magical words, led them to believe they were invented by the gods.

Even the Persians used a few movements for different affections.

The Greeks were the first to recognize gymnastics as an institution, a fact of much importance to the free states. Here they were auxiliary to the development of the people both socially and politically. The gymnasts were political, pedagogical, esthetical and therapeutic. The philosophers and the physicians *recommended* manual treatment. Plato even divided it into active and passive movements, and especially *recommended* the latter. Some phy-

sicians practiced the movements themselves; but there arose a class of people, called *Pädotribes*, some of whom acquired great skill in the manipulation of the human body.

Although the *Romans* imitated the Greeks to some extent, they rather preferred calisthenics; yet the manual method was more extensively practiced in Rome under the Emperors than it had hitherto been by any other nation.

Thus we see that among the ancients the most common movements were a few passive manipulations, while in the Middle Ages the gymnastics of an earlier period were more or less forgotten.

In the fifteenth and sixteenth centuries well-known physicians recommended gymnastics. Fuller and Tissot wished to combine the movements with the study of medicine. In the early part of the present century, a therapeutic system of gymnastics acquired a reputation heretofore unknown, in movements based upon a certain action between operator and patient.

The Swede, P. H. Ling (1776–1839), and his predecessors erected the first scientific system, in which they adopted the new Medical Science, making the movement treatment a perfectly scientific remedy worthy of the confidence of every educated man.

In our own time, Dr. Mezger, of Amsterdam, has demonstrated certain passive movements, and arranged them into a system that is now endorsed by every intelligent physician.

EXERCISE.

In walking or reading, or even in some of the ordinary occupations of life, it is true that a person takes a certain amount of exercise, but there is no *Method* in such movements.

It is easy to determine how much is to be done and how long it may be continued, but it will be a very difficult matter to *estimate* the amount of vital force necessary to carry these exercises into execution.

For instance, in walking, the strength of the motion depends not only upon the time and speed used, but also upon the weight of the body, supported by the lower limbs. In many cases the strength and tone of the muscles of the leg are not in proportion to the weight of the body.

This condition is exemplified in most of the calisthenic exercises.

When a person is practicing calisthenics, the strength of the exercise depends upon the constitution and upon the weight and the natural activity of the body, which are not necessarily in proportion to the individual's strength.

For instance, in jumping; to a person weighing

one hundred pounds, the exercise may be only light and agreeable, whereas to another weighing two hundred pounds, the weight of whose body is out of proportion to the muscular strength, the same exercise might prove positively injurious.

Not being able to *estimate* the vital force used in the common exercises, practiced under the head of calisthenics or in the different sports or games, they should not be classified under the name of *Medical* or *Remedial Gymnastics*. In the latter case it is necessary to be able to *estimate* the amount of force required in every movement, and apply it according to the strength of each individual.

The difference between the *Movement Treatment* and the common exercise does not consist only in the quantitative estimate of the movements.

In the exhilarating exercise of riding, the motion is *general*, acting upon the entire body, no part being excepted. On the other hand, in walking or dancing, the muscles of the legs are used almost exclusively; those of the arms not being brought into action at all. The dancing-master has well-developed muscles in his legs, whereas, unless he resorts to some special exercise for his arms, the muscles will not be in proportion to those of the legs.

Persons of *sedentary* habits, especially dressmakers and clerks, who have but little exercise of

any kind, are sure to have an ill-developed muscular system. Unless such persons take exercise systematically, they are liable to injure themselves severely. Persons who try to excel in any one kind of athletics, run great risks of exceeding their strength.

Thus we see it is impossible to *estimate* the benefit of calisthenics, which can easily be done with the Swedish Movements.

Finally, in the *Movement Treatment*, all movements are arranged in such a way and in such a form as to be comfortable, and adapted to all parts of the body.

Based upon a knowledge of the *Anatomy* and *Physiology* of the parts and their proper physiological limits, this treatment is much superior to any other, as well as more agreeable.

All joints have a natural motion within certain fixed limits. When such joints are gently exercised an agreeable sensation is produced, but if the exercise be too violent, Flexing, Extending or Rotating to excess, severe pains will probably result. The same may be said of the muscular system. Each muscle having a distinct and certain function to perform, proper exercise of these muscles, if confined to physiological limits, will be invigorating and agreeable to the patient.

In giving the *Swedish Movements*, special attention

is directed to the natural functions of joints and muscles. This is not the case, with any other kind of exercise, consequently the sensation and value of promiscuous movements can never be the same.

When movements are necessary over painful parts of the body, the patient must sometimes judge how much he can bear. *The Swedish Movement Treatment can better adapt itself to all conditions than any other treatment.*

Finally, the aim of the Swedish Movement is, by a careful manipulation of muscles and joints, to restore to good health such as are in any way diseased. The force of such manipulations can be estimated and the extent of their duration fixed.

THE DIFFERENT MOVEMENTS.

The movements are divided into the following:—

A. Passive.	B. Active.
1. General Passive Movements.	1. General Active Movements.
2. Massage Treatment.	2. Duplicated Active Movements.

The Passive Movements are all given to the patient by the operator.

The Active Movements are taken by the patient with the assistance or resistance of the operator.

The General Passive Movements may be performed while the patient is dressed.

The Massage Treatment is always applied upon the nude skin.

The General Active Movements are performed by the patient exclusively.

The Duplicated Active Movements are generally performed by the patient with the operator's resistance.

MASSAGE.

Before describing the movements, attention will be given to the Massage Treatment,—a series of passive manipulations on the body.

Dr. Mezger, of Amsterdam, and his two pupils, the Swedish physicians Berghman and Helleday, were the first to apply the Massage Treatment scientifically. Their method is now used throughout Europe. Dr. Mezger divides the Massage Treatment principally into four different manipulations :—

I. Effleurage. (Stroking.)—This manipulation consists of centripetal (toward the body or heart) stroking, performed with the palm of the hand (see Fig. 1), with the ulnar or radial border thereof, with the tips of the fingers (see Fig. 2) or the thumb (see Fig. 3). One hand is generally used at a time; but if a great deal of force is required, both hands, or one on top of the other, are used.

The aim of effleurage is principally to increase the circulation in the blood vessels and the lymphatics.

II. Frictions (Friction) are given with the thumb (see Fig. 4) or the tips of the fingers (see Fig. 5). They are strong, circular manipulations, and are always followed by centripetal stroking. The aim of this part of massage is to squeeze pathologically changed parts, and by carrying the diseased tissues into the healthy substances, expose them to a firm stroking, so as to have them absorbed by the lymphatics.

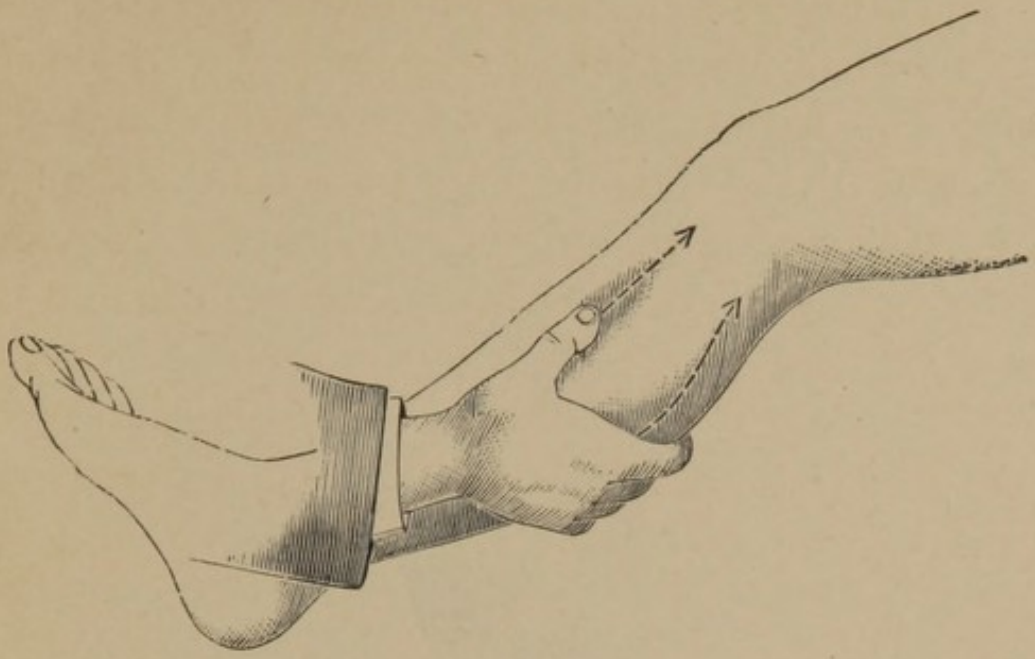


FIG. 1.—Effleurage with one hand.

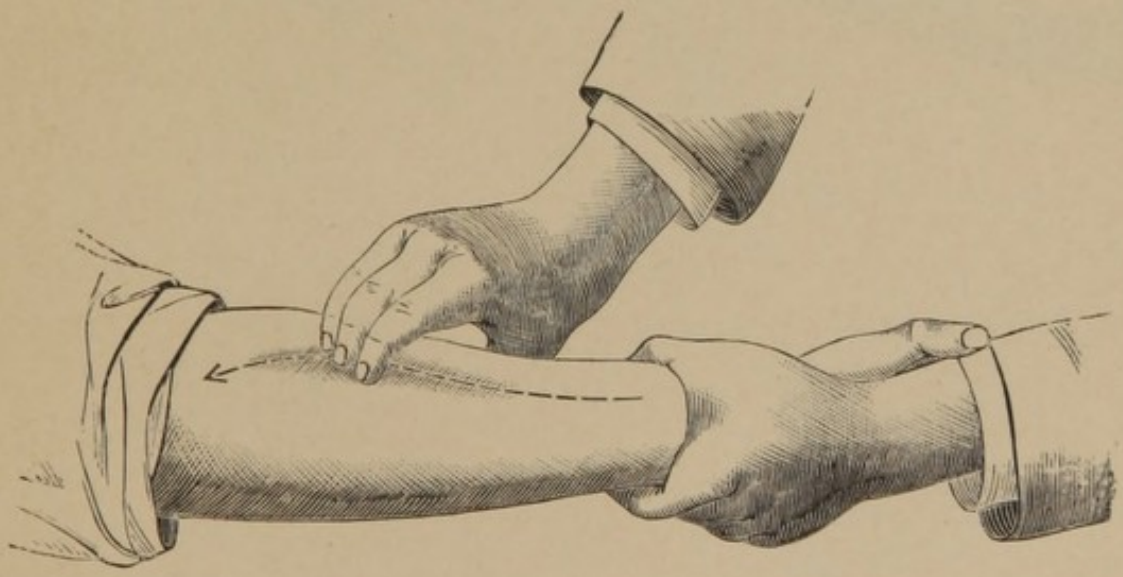


FIG. 2.—Effleurage with the tips of the fingers.

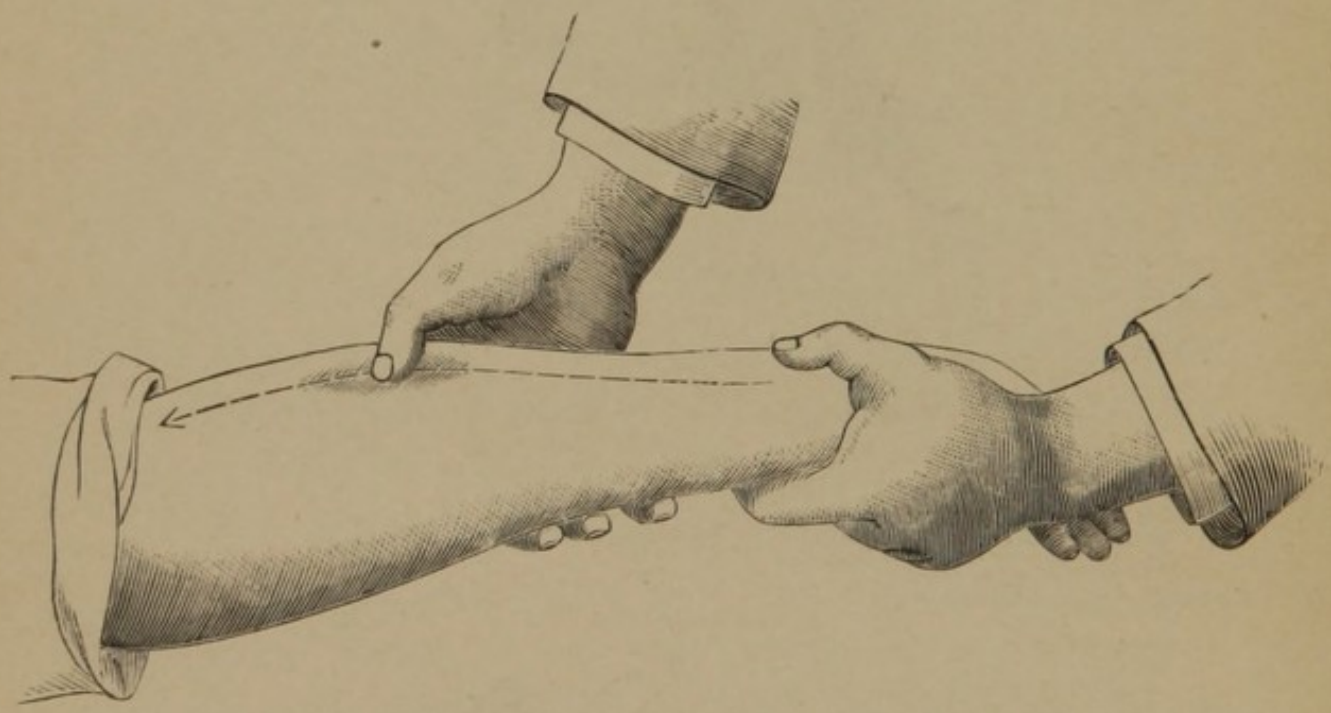


FIG. 3.—Effleurage with the thumb.

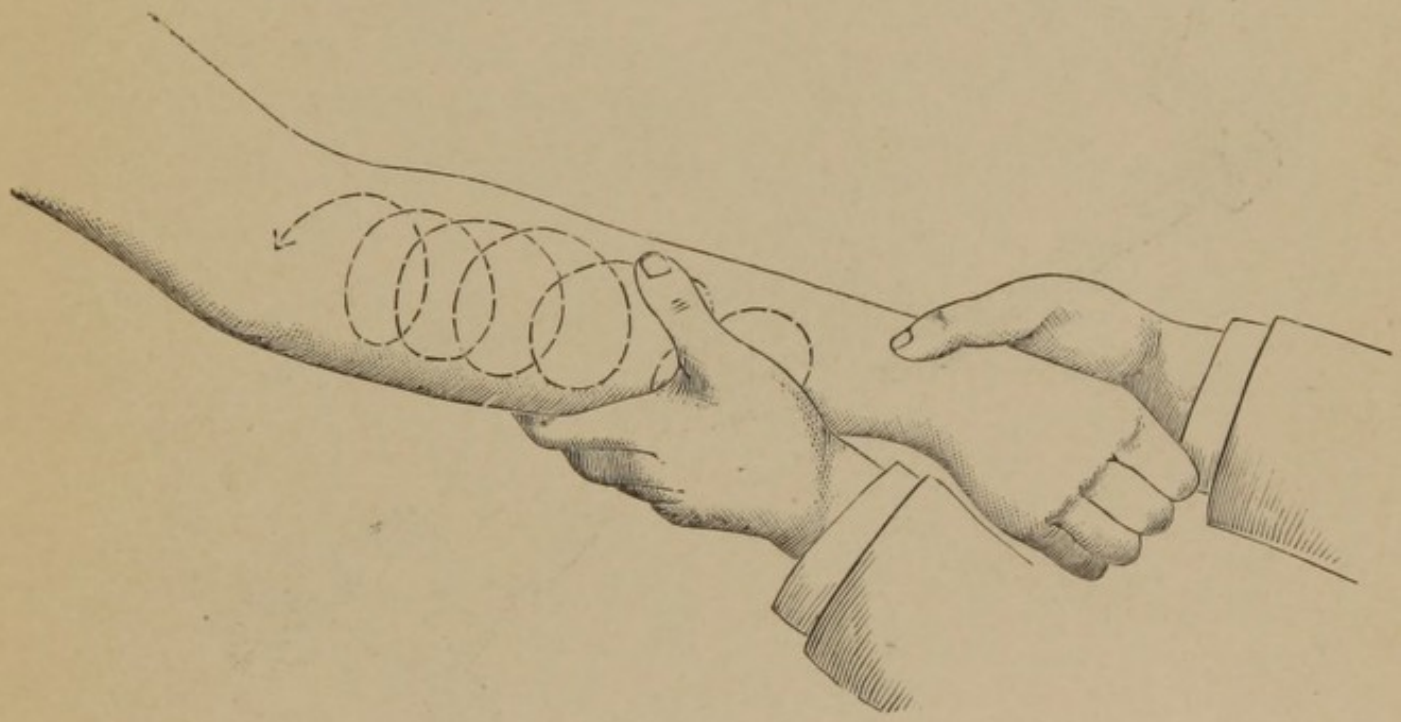


FIG. 4.—Frictions with the thumb.

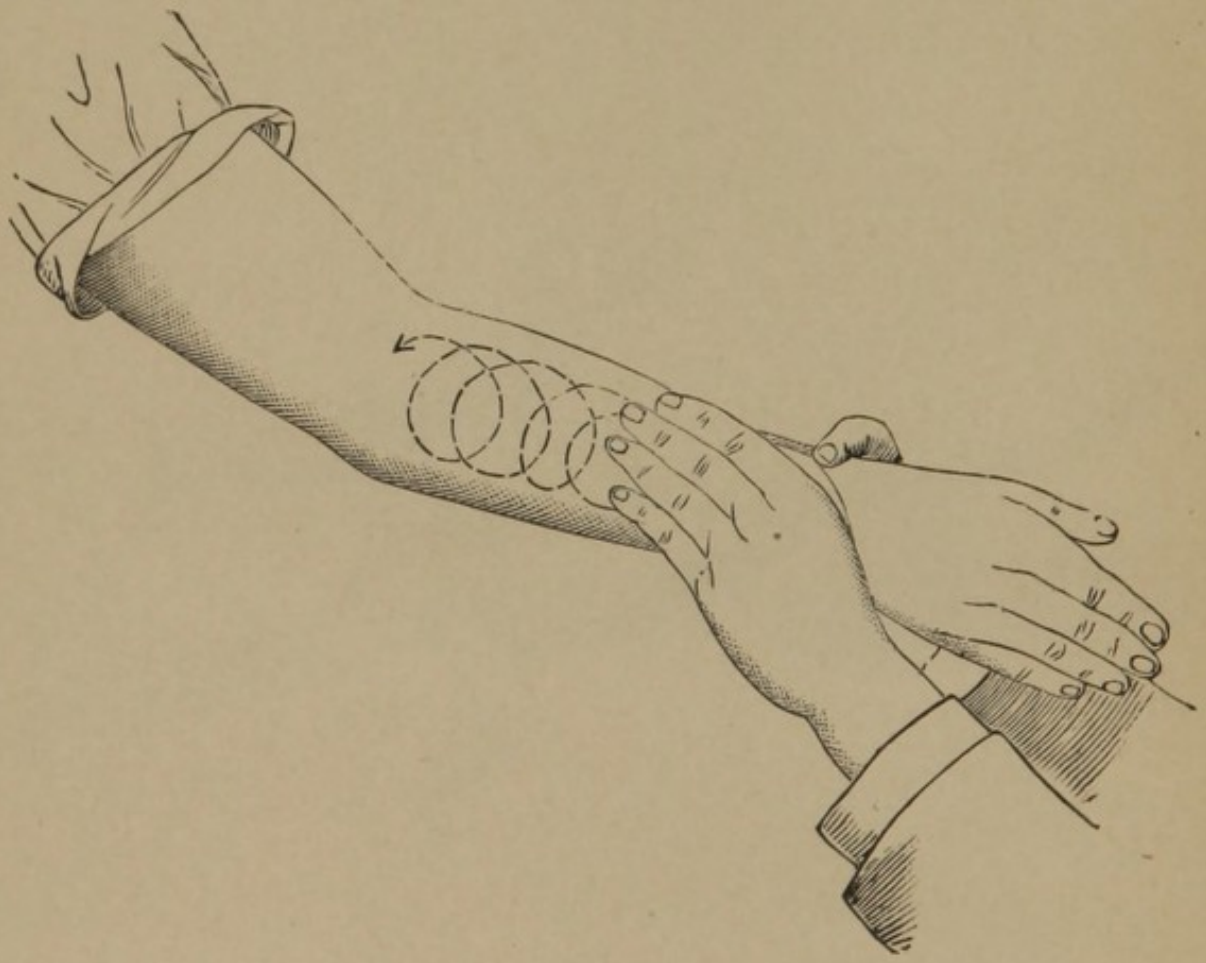


FIG. 5.—Frictions with the tips of the fingers.

III. PÉTRISSAGE. (Kneading.)—This manipulation is performed generally by the tips of the thumbs (see Fig. 6), or with the index finger and the thumb (see Fig. 7) or the palm of the hand (see Fig. 8). It is used principally on the extremities. The operator picking up a special tissue, muscle or tendon, and placing one finger on each side of the part, proceeds in centripetal motion, with a firm pressure. The action of this manipulation is the same as that of frictions.

IV. TAPOTEMENT (Percussion) is divided into four kinds :—

(*a*) *Clapping*, which is performed with the palm of the hand (see Fig. 10).

(*b*) *Hacking*, with the ulnar border of the hand (see Fig. 11).

(*c*) *Punctation*, with the tips of the fingers (see Fig. 12).

(*d*) *Beating*, with the clenched hand (see Fig. 13).

The movement is a "wrist movement," and, with the exception of Beating, must be performed quickly and easily, without too much pressure.

Clapping is used to reach superficial nerves. *Hacking* is principally used around a nerve-centre and upon the muscles. *Punctation* is used upon the head and around the heart. *Beating* is used for sciatica and muscular atrophy.

The strength of the manipulations is a principal

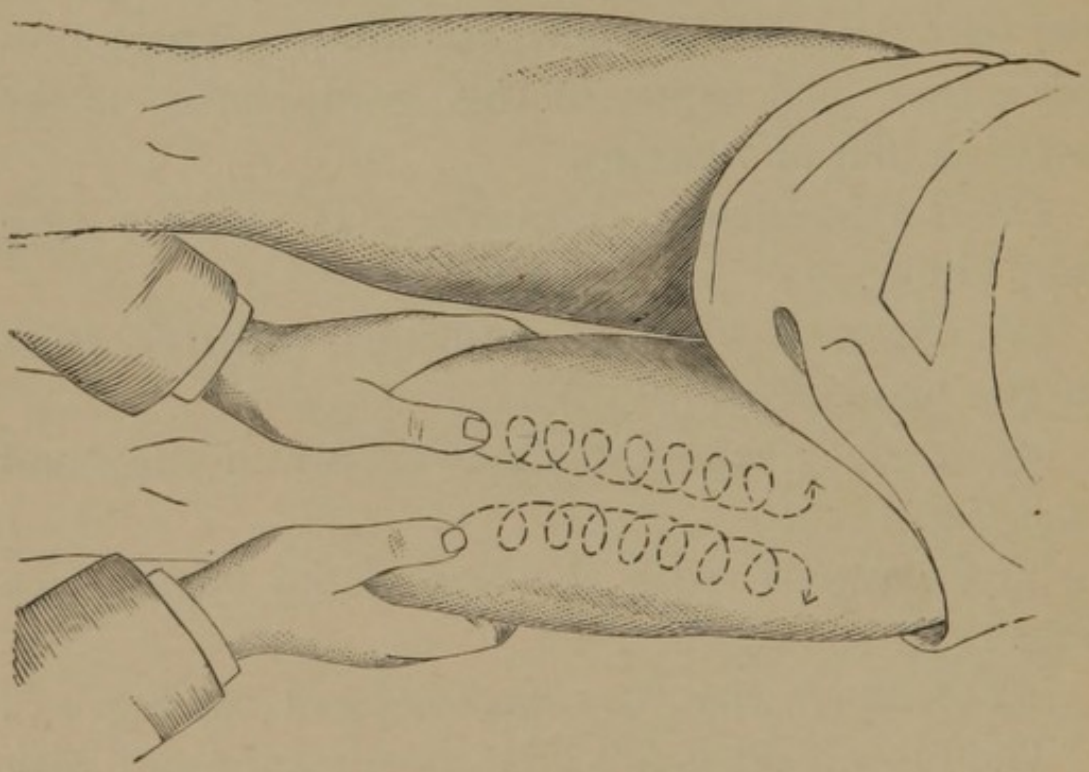


FIG. 6.—Pétrissage with the tips of the thumbs.

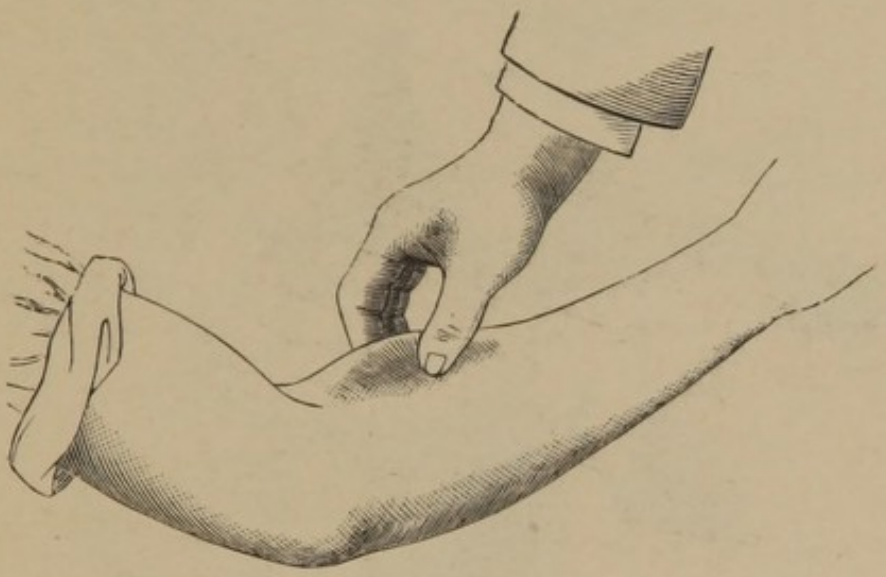


FIG. 7.—Pétrissage with the index finger and the thumb.

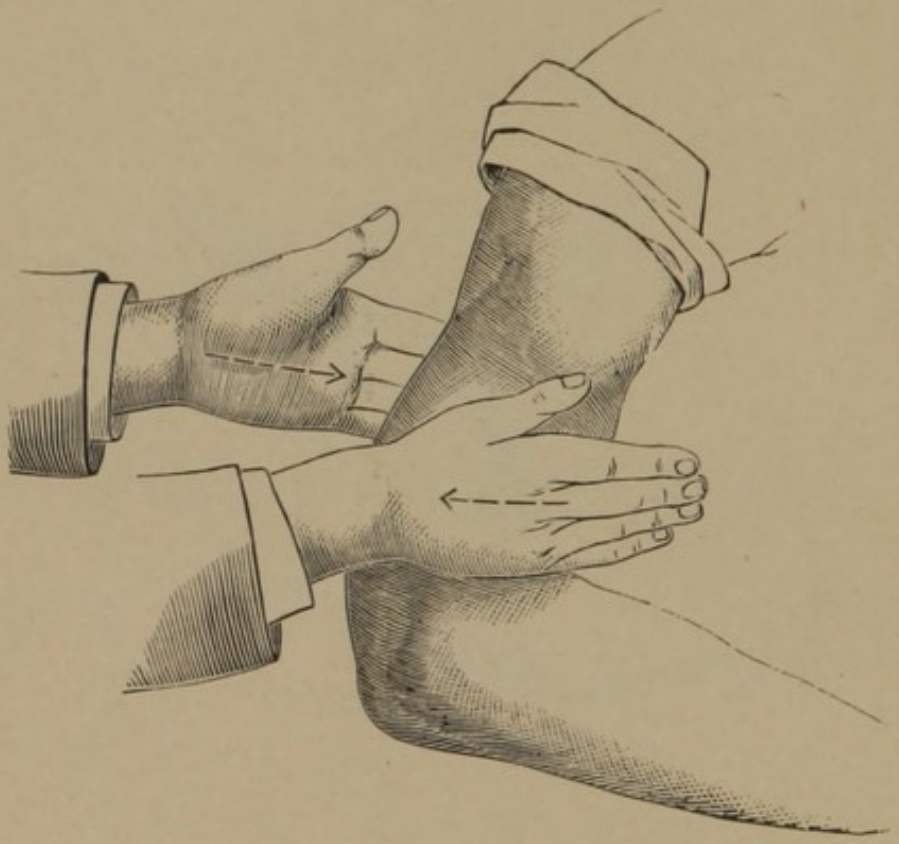


FIG. 8.—Pétrissage with the whole hand.

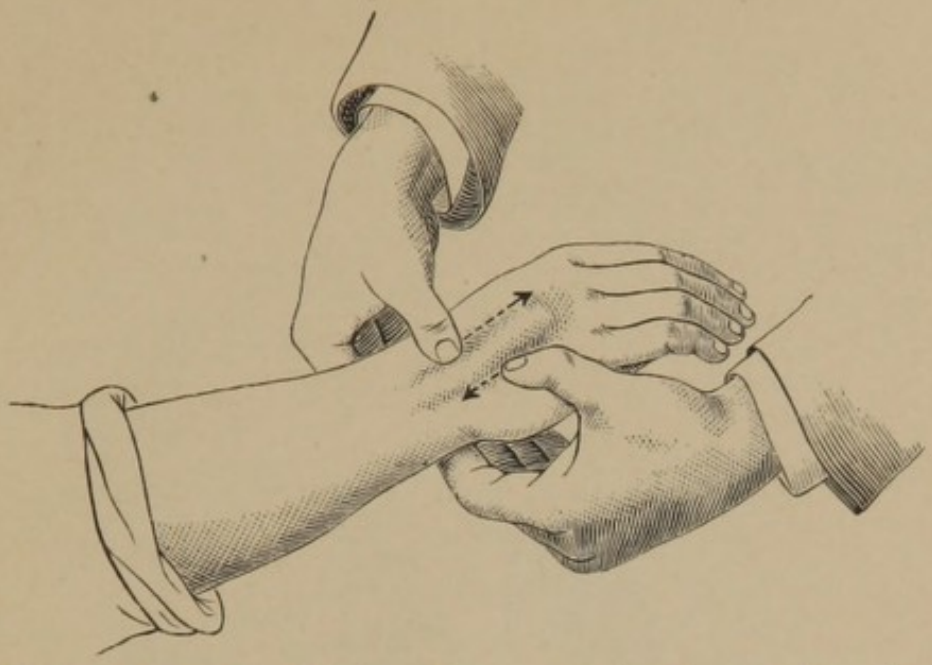


FIG. 9.—Pétrissage on the hand for contracted tendons and muscles.

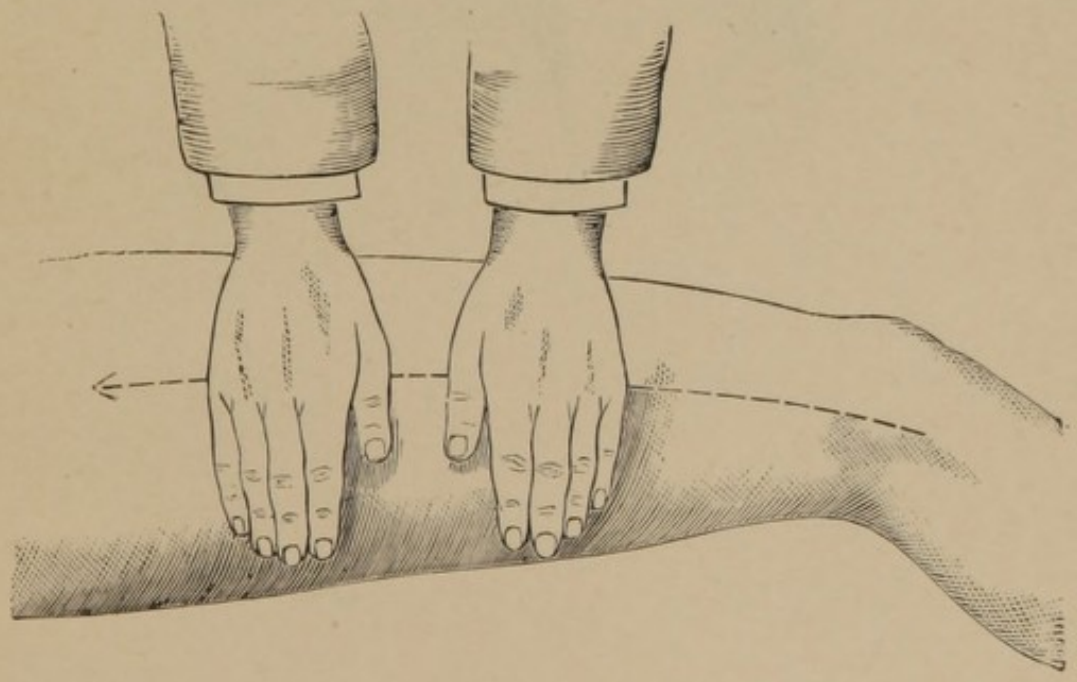


FIG. 10.—Clapping.

FIG. 11.—Hacking.

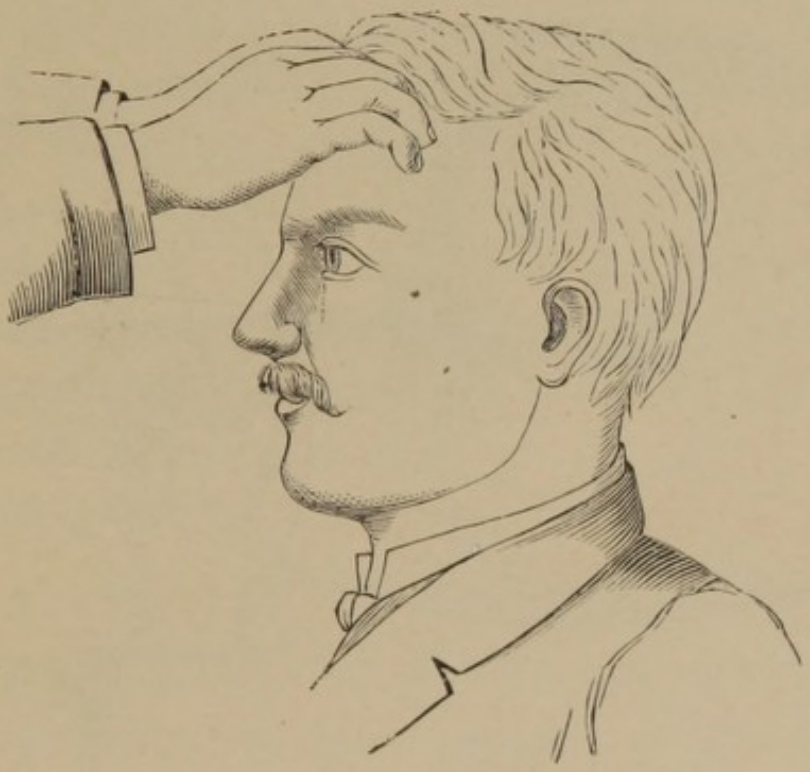


FIG. 12.—Punctuation.

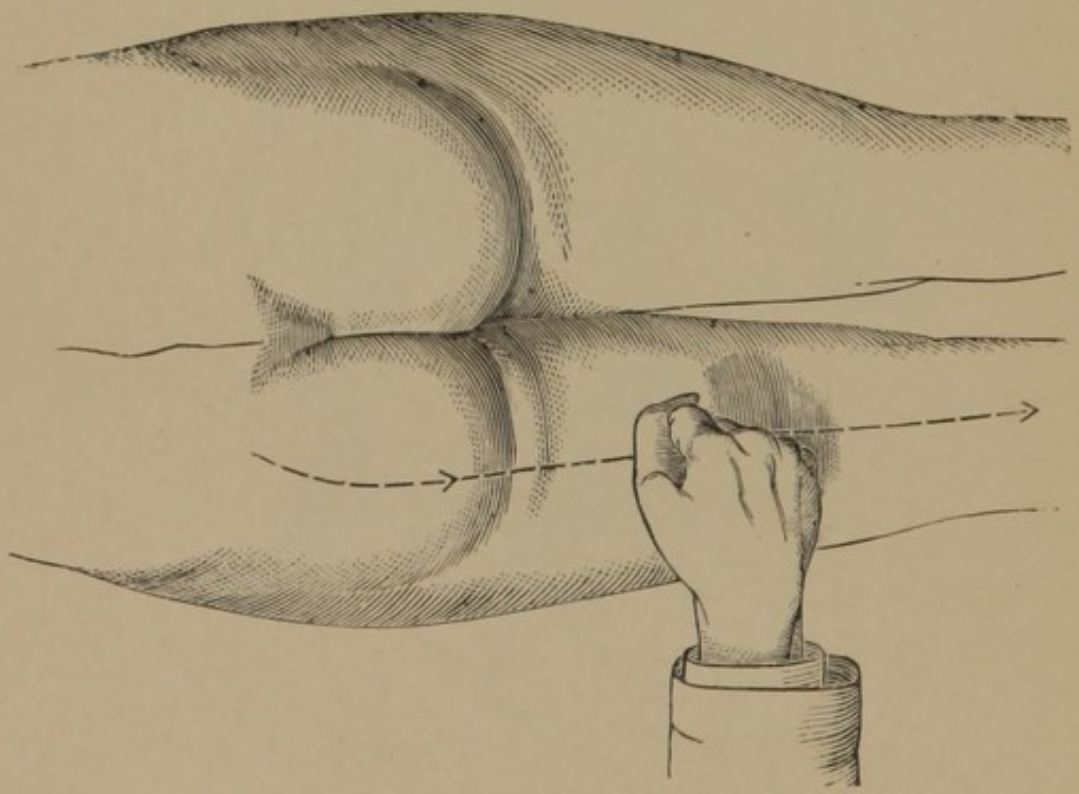


FIG. 13.—Beating.

point in the Massage Treatment, and the "self-made" masseur will often unnecessarily bruise his patient. As a rule, begin with a moderate pressure, ascertaining from the patient his sensation. To avoid abrasions use white vaseline or some other oleaginous substance. *Massage must always be applied on the nude skin.* The masseur who works outside the clothes, when acting upon special parts of the body, or "works in the dark," tires his fingers and loses a principal feature in the application —the *feeling*, which is so extremely necessary in a careful masseur. Some authors claim that working outside the clothes will save the patient's skin; but could anything be more pleasant and agreeable than a soft hand?

Massage is divided into—

INTRODUCTORY, GENERAL AND LOCAL.

Introductory Massage consists of Centripetal strokings around the affected parts. For instance, in a case of an affection of the knee-joint, introductory Massage should be used on the lower part of the thigh and somewhat below the knee. This part of the Massage is very useful in cases where it is impossible for the operator to apply the treatment directly to the diseased parts.

General Massage, so successfully used by some

eminent American physicians, consists of a centripetal stroking in connection with some muscular Kneading from the toes upward. It is principally used for nervousness, making an important part of the well-known "Rest-cure." General Massage (30–40 minutes) may be used with good results in connection with certain baths. As soon as a part is masséed, it should be subjected to a few passive rotary movements and afterward covered up.

LOCAL MASSAGE.

I. Massage of the Leg.—Begins with firm Stroking from the foot to the hip, being careful to avoid bone. Next apply Friction, beginning with interosseous muscles, proceeding slowly upward. This movement should be succeeded by Stroking. Then Knead; special care being taken to pick up the various tissues. Hacking over the muscular parts will finish the treatment of the leg.

II. Massage of the Arm.—The arm is treated in the same manner as the leg, the shoulder-joint receiving especial attention. The arm must be in a semi-flexed position.

III. Massage of the Chest.—Begin with Stroking. Putting the hands flat on each side of the sternum (breast bone), stroke upward and outward, making a circular movement (see Fig. 14). Con-

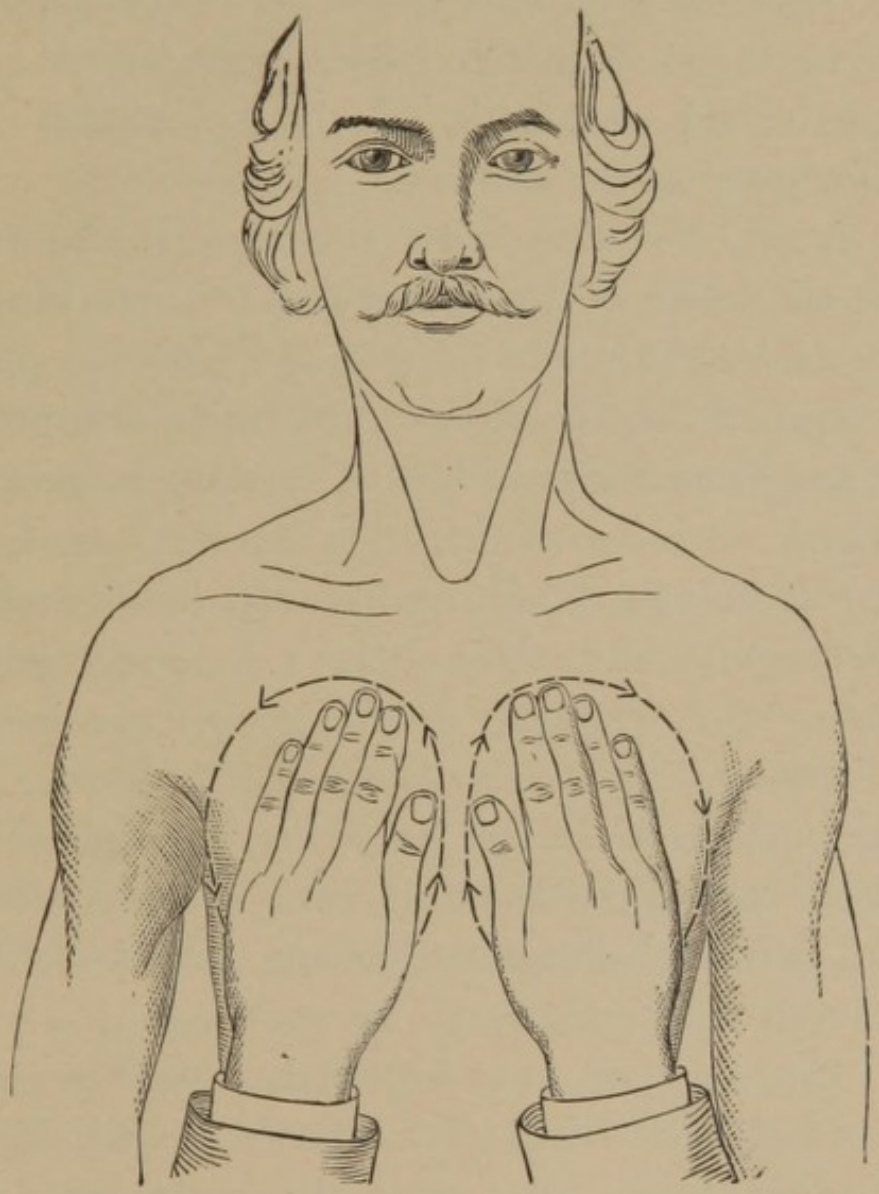


FIG. 14.—Effleurage on the chest.

tinue with Punctation over the heart in circles. Use Hacking and Clapping according to circumstances, always being careful not to use too much strength.

IV. Massage of the Back.—1. Begin by Stroking downward from the base of the skull. Keep one hand on each side of the spine and stroke firmly down to the sacrum.

2. Apply Friction with the tips of the fingers down each side of the spinal column, working also upon the muscles of the back and sides.

3. Spread the hands over the back, and with the thumbs Knead about half a minute between the vetrebræ.

4. Finish with Hacking up and down each side of the spine ten times. If necessary, perform Stroking and Clapping of the side, especially the right side.

For *Lumbago* use the following movement: The operator spreading his hands over the "small of the back," performs circular Stroking with his thumbs, alternately.

V. Massage of the Abdomen.—1. The patient lies on his back with knees drawn up to relax abdominal muscles. Begin at the right side, where the operator is sitting. Spread the right hand over the abdomen, and press with the heel of the hand and the fingers, alternately, over the transverse

colon, making a slight downward movement in returning.

2. Knead the transverse colon with the tips of the thumbs.

Massage of the abdomen should in many cases be followed by a beating of the sacrum when the patient turns on his face. The operator beats the sacrum with clenched hand in circular movements, so as to act upon the rectum.

VI. MASSAGE OF THE HEAD.—1. *Stroking.*—Beginning with the neck, keep the left hand firmly on the forehead, and with the right in a V-shape, stroke the neck downward. In Stroking the forehead, place the thumbs between the eyebrows and stroke firmly over the temples to the ears, both thumbs working together, so as to act upon the *supra-orbital* nerve (see Fig. 15).

2. *Friction* is freely used with the palm of one hand, the other assisting in holding the head in position.

3. *Hacking* is used with both hands striking together, making circles over the head, beginning on the top and moving backward, downward and forward to the starting point.

4. *Shaking.*—Finally, clasp the forehead with both hands close together, and shake the head carefully.

VII. MASSAGE OF THE FACE.—1. *Stroking.*—Place the index finger in the mouth, and with the thumbs

FIG. 15.—Effleurage on the head.

stroke the muscles in the superior and inferior maxillary regions (see Fig. 16).

2. *Friction.*—Use the thumb and index, picking up the muscles and working upon them with small rotary motions.

This treatment is used with great success for facial paralysis.

VIII. Massage of the Eye.—*Stroking.*—The patient sits with the head leaning backward, the operator standing at his side. The index finger is placed on his eyebrow, the middle finger grasping the eyelid, which is pressed with either a radial or circular motion against the eye. Be very careful not to use too much strength, and perform the movement as quickly as possible.

IX. Massage of the Throat.—*Stroke* with two fingers on one side and the thumb on the other side of the trachea. Finish with similar stroking in connection with a slight shaking.

X. Massage of the Neck.—The patient faces the masseur with the head thrown back, so as to extend the exposed parts. The masseur places his hands at the lobes of the ears and performs a stroking downward to the shoulder. The patient should be told to breathe freely and easily. (Gert's method.)

XI. Massage of the Uterus.—1. The *External Method* is merely a modification of the massage of

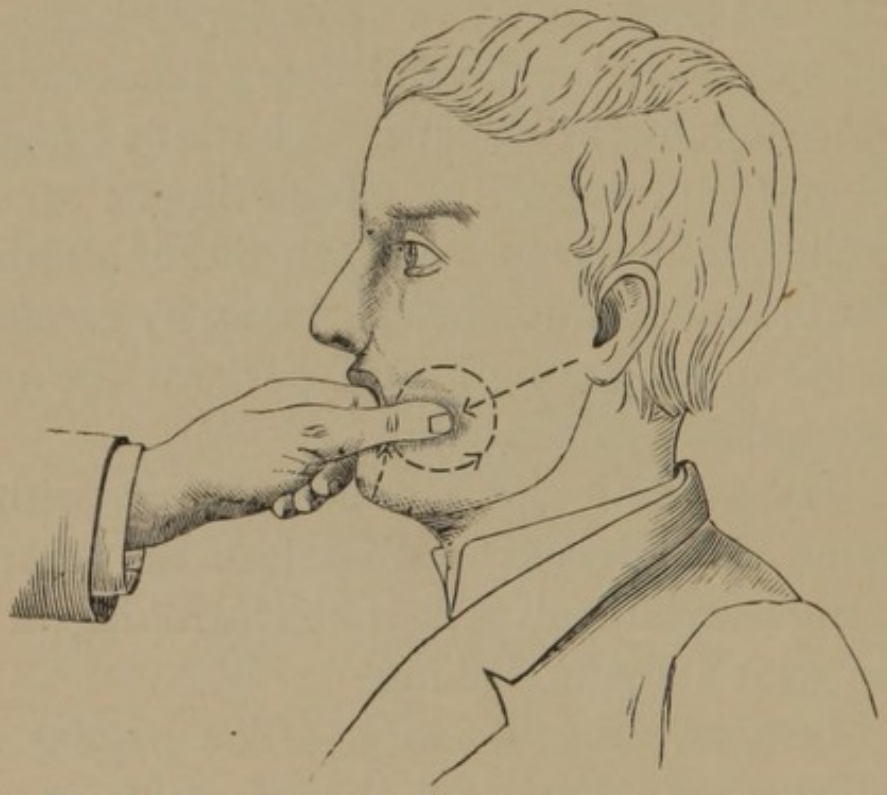


FIG. 16.—Massage of face.

the abdomen. The patient must be in a half-lying position, with the knees flexed, in order to relax the abdominal muscles. Begin with the circular manipulations, from right to left, following with *Stroking* and *Friction* over the lower part of the abdomen.

It is generally used for atony of the uterine organs, and must always be succeeded by *Percussion* or *Beating* of the lower part of the back. The Swedish Movements are a valuable auxiliary, controlling, as they do, the circulation in the abdomen and the lower extremities. The massage increases the current in the blood vessels and the lymphatics, the resorption is restored, and the muscular organs in the smaller pelvis are strengthened.

Special manipulations of the intestines relieve the bowels, which in cases of uterine affections must be of great importance.

2. A *Second Method* is rather difficult to perform, as one or two fingers must be inserted in the vagina or the rectum, against which we work from the outside. It should be performed only by a person who has a thorough knowledge of the parts.

Dr. Norstrom, in Paris, recommends in massage of the Uterus:—

1. Graduate the pressure of the uterine body after you have seized it.

2. In order to get a good hold, push down during expiration; maintain the distance gained

during inspiration and start again during the next expiration.

3. Be careful not to increase, by any sudden movements, the painful impression experienced by the patient when the uterus is first taken hold of; wait a moment before beginning pressure. The pressure sometimes produces reflex pains in various parts of the body.

4. Devote all your attention to supporting the uterus. This is easy when it is large and soft; very difficult when it is small and hard; it is then that it moves with great facility to one side or the other.

THE VARIOUS MOVEMENTS.

1. Rotation.
2. Pressing and Shaking.
3. Flexion and Extension.
4. Separating and Closing.
5. Bending.
6. Raising.
7. Pulling.
8. Turning.
9. Depression and Elevation.

1. ROTATION.

Rotation is a rotary movement by which the different joints are brought into motion within their natural limits.

I. *Rotation of the Feet* may be performed with the patient in a sitting or half-lying position.

In the first position, the operator sits in front of the patient, and, taking the feet in his lap, grasps the toes and moves the feet outward, describing a circle. In the second position, the patient is half-lying, his feet resting on the couch or bed. The operator grasps the toes and proceeds with the

same motion as above. Relax the muscles, if necessary, by shaking the toes.

The Rotation of the Feet is intended to promote circulation in the lower extremities, and is often used for attracting the blood from other parts. The movement is performed 15–20 times. The strength of the motion depends upon the size of the circle described. (Passive.)

II. *Rotation of the Foot.*—The operator, sitting in front of the patient, takes the heel in his left hand, and, grasping the toes with the right, performs a rotary motion from the ankle, pressing the foot forward. 10–15 times in each series.

It is used principally for deformities and affections of the feet. (Passive.)

III. *Rotation of the Leg.*—The patient in a half-lying position. The operator, placing one hand on the sole of the foot and the other below the knee, with the thumbs inward, raises the leg and performs a circular motion by the hip-joint, pressing upward, inward and outward. 12–15 times on each limb.

It is used to regulate the circulation of the abdominal organs and to prevent stiffness in the hip-joints. (Passive and General Active.)

IV. *Rotation of the Arms.*—The patient sitting. The operator, standing behind, grasps the extended arms below the elbows and rotates them upward and outward. The patient may also be in a stand-

ing position, in which case the operator must support him with his chest. It is used principally to assist respiration and circulation. (Passive or Active.)

V. *Rotation of the Shoulder.*—The patient sitting or standing. The operator, putting one hand on the shoulder-joint and the other below the elbow, rotates upward and outward. 15–20 times.

The movement is used for stiffness in the joint and for inflammation of certain muscles. (Passive, seldom Active.)

VI. *Rotation of the Hand.*—The operator takes the patient's hand, and, grasping the wrist with his free hand, rotates from side to side. 10–18 times.

It is used for stiffness in the wrist after fractures of the arm; also to increase the circulation. (Passive.)

VII. *Rotation of the Head.*—The patient sitting with the back supported. The operator, placing one hand on the forehead and the other on the neck, rotates SLOWLY from side to side. 8–10 times.

It is used for anæmia of the brain, stiffness of the neck, etc. (Passive.)

VIII. *Rotation of the Body.*—The patient in a sitting position, with hands on hips. The operator, standing behind, places his right hand on the right shoulder-blade, and his left in front of the other, and performs the motion in such a way as to press

the patient forward with one hand and carry him backward with the other, always being careful to describe a circle.

It is used principally for affections of the abdomen. To secure a very strong action of the movement, the patient turns his body somewhat in the motion. (Passive.)

IX. *Rotation of the Pelvis.*—The patient resting with body on a couch or bed, and grasping it to keep immovable, the lower extremities extended. The operator grasps the feet and proceeds with the Rotation of the Legs, endeavoring to produce a circle large enough to bring the pelvis into action.

Rotate 10 times to each side, if the patient's strength permits. (Passive.)

The aim of the Rotation is to lengthen and shorten the veins, so as to produce a sucking of their contents, thus stimulating the circulation and assisting the heart in its action.

2. PRESSING AND SHAKING.

These movements are mostly applied to the extremities and are generally combined.

In *Pressing*, the operator uses the tips of his fingers in vertical motion over the principal nerves. In *Shaking the Arm*, the operator grasps the hand and shoulder, keeping the arm in an extended

position, and shakes as quickly as possible. In *Shaking the Leg*, he grasps the foot with one hand and the thigh as high as possible with the other, and shakes quickly.

These movements are always Passive, and are principally used in nervous affections.

3. FLEXION AND EXTENSION.

I. *Foot.*—The patient lying or sitting. The operator, grasping the ankle with one hand and the toes with the other, moves the foot up and down as far as the limits of the joint permit. 10–18 times.

It is used for deformities, and especially for stiffness of the Achilles tendon. (Passive and Duplicated Active.)

II. *Leg.*—The patient in a lying or sitting position. The operator puts one hand under the sole of the foot, the other hand below the knee, thumbs inward. The patient moves the limb up and down, while the operator resists.

It may also be a passive movement, and is used for stiffness in the knee and hip-joint, and for contraction of certain muscles. (Passive or Duplicated Active.)

III. *Arms.*—The patient sitting. The operator standing behind, grasps the patient's wrists, telling him to keep his elbows close to the body and to

move the arms up and down, the operator making a suitable resistance. 10 times. It is a circulatory movement. (Duplicated Active.)

IV. *Arm.*—The patient sitting. The operator, standing in front, grasping the wrist with one hand and around the triceps muscle with the other, the patient moves the arm up and down, the operator making a suitable resistance. 10–15 times. The motion may also be passive, and is used for acting upon the joints and for certain local affections. (Passive or Duplicated Active.)

V. *Hand.*—The patient sitting. The operator, in front, takes the fingers firmly in one hand, the other grasping the wrist, and works up and down about 10 times.

It is used for stiffness of the wrist and for writers' cramp. (Passive or Duplicated Active.)

Flexion and Extension are used principally for regulating the circulation in certain parts and for relieving local congestion.

4. SEPARATING AND CLOSING.

I. *Arms.*—The patient sitting with arms extended. The operator, standing in front, grasps his wrists; the patient moves his arms out and in, the operator resisting. It is used for extending the chest. (Duplicated Active.)

II. *Legs.*—The patient sitting or half-lying. The operator grasps the ankles underneath, the patient separates and closes his legs, with the resistance of the operator, who may need an assistant. (Duplicated Active.)

This movement acts upon different abdominal organs.

III. *Knees.*—The patient in a half-lying position, with the knees flexed. The operator, standing at his side, places one hand on each knee and resists the patient, who separates and closes his legs. 8–16 times. (Duplicated Active.)

5. BENDING.

I. *Head.*—The patient, sitting or suspended, bends the head backward and forward 8–10 times.

It is used to force the blood to the head in anæmia of the brain, and to extend the muscles of the back in lateral curvature of the spine. (Active.)

II. *Body* (sideways).—Suppose a case of lateral curvature of the spine. If the right side is affected, the patient stands with his left arm straight up, close to the head. The operator, standing behind, places one hand on the right side, at the highest point of the curvature, the other on the opposite hip; the patient bends slowly toward the left side, thus

acting upon the affected muscles. (Duplicated Active.)

III. *Body* (backward and forward).—The patient standing, with the hands on the back of the head or on the hips. The operator, at his side, places one hand on the chest, the other on his back, and moves the patient backward and forward, supporting his feet from behind, if required. (Duplicated Active.)

IV. *Knees.*—Patient is in a standing position, with hands on hips; operator, at his side, places one hand on patient's chest and the other on back. The patient is told to (1) raise on his tip-toes; (2) flex his knees as much as possible; (3) raise up on the tip-toes; and (4) to regain the general standing position. (Duplicated or General Active.)

6. RAISING.

I. *Leg.*—The patient lying flat on his back. The operator grasps the heel underneath, one hand supporting the knee underneath, and raises the extended leg upward. 10 times.

This movement may also be active, and is used principally for sciatica and slight rupture.

II. *Body.*—The patient sitting on a stool or a turned chair. The operator places his hands flat on the shoulder-blades. The patient, if strong enough, clasps his hands on the back of his head,

and bends forward, keeping the head up. He then raises his body up, with a strong resistance of the operator.

It is used for deformities of the back. (Duplicated Active.)

III. *Body.*—The patient lying with hands clasped on the back of his head. The operator places his hands around the ankles, with thumbs inverted, and holds them firmly. The patient then rises slowly to a sitting position. There is no better movement for compressing the contents of the bowels. The movement may also be a general active, and is used principally for constipation.

IV. *Chest.*—The patient sitting. The operator, standing behind and placing his hands around the patient's armpits in front, raises the body slowly forward, upward and backward, describing a circle. The movement is always *passive*, and is used to assist respiration.

7. PULLING.

I. *Leg.*—The patient standing on a chair, with hands against the wall for support. The operator, grasping the foot around the instep, carries the leg backward. 8–15 times.

The movement is abducent, as it causes a great tension in the front part of the abdomen. (Passive.)

II. *Body* (backward).—The patient kneeling on

a sofa, with knees separated; hands on hips. The operator stands behind, with one knee supporting the lumbar region, his hands grasping the armpits from behind, and carries the patient slowly backward; the latter making a slight resistance. 6–12 times, according to strength. (Duplicated Active.)

The motion has a strong effect on the muscles of the abdomen, and is used principally for cases of dysmenorrhea.

8. TURNING.

I. *Foot.*—The patient sitting or lying. The operator puts one hand back of the ankle, the other grasping the toes and the front of the foot, and turns the foot from side to side. The motion is always passive, and is used chiefly for sprains and deformities.

II. *Leg.*—The patient lying. The operator places one hand on the sole of the foot, the other pressing on the knee to keep the leg extended, thumbs inward, and moves the limb slowly inward and outward.

The motion is used for stiffness in the hip-joints and for contraction of certain muscles. (Passive.)

III. *Body.*—The patient standing or sitting, with hands on the hips or clasped on the back of the head. The operator standing behind, places his right hand on the shoulder and his left in front of the other,

and moves the patient to one side and back again, changing the position of the hands before turning to the other side. The movement is also duplicated active, and is used for congestion of the abdominal organs and for acting upon the great venous system.

IV. *Arm.*—The patient sitting or standing. The operator supporting the elbow with one hand and grasping the hand with the other, moves the fore-arm from side to side (pronation and supination). If the whole arm is to be turned, the operator must grasp the elbow to keep it extended. The movement is passive, and is used principally for stiffness in the joints, and for relaxing the tendons and muscles in cases of after-operation.

V. *Head.*—The patient sitting. The operator placing one hand on the forehead, the other on the neck, and moves the head slowly from side to side. 10 times. (Duplicated Active.)

9. DEPRESSION AND ELEVATION.

I. *Arms.*—The patient sitting or lying. The patient raises his arms, the operator grasping the hands from behind. The operator presses the arms down, the patient resisting. The patient raises the arms, while the operator resists. 10–12 times. (Duplicated Active.)

II. *Legs.*—The patient lying flat on the back, grasping the bed or couch to keep himself immovable. The operator grasps the soles of the feet, thumbs inward. The movement is performed down and up with the knees turned out, the patient resisting in the elevation and the operator in the depression.

The movement is very effective and must be performed with great care. 6–10 times. (Duplicated Active.)

A few movements belonging to the Swedish system have been omitted, as not being of much practical use.

POSITIONS.

The movements may be performed in five different positions: *Standing*, *Sitting*, *Lying*, *Kneeling*, or *Suspending*.

From these so-called *ground positions* we have many subdivisions. From the position of standing alone we have forty-seven * derivative positions. For this reason, and because the movements are applicable to almost any position, the Swedish Movements are superior to all others.

These subdivisions, although good in many cases, have given rise to a ridiculous number of movements, in all about eight hundred.

Every movement has a compound name, the first part indicating the position of the patient, the second the movement to be performed. For instance, *Sitting Rotation of the Arms.*

The passive movements need practice on the part of the operator, but the active movements require a greater degree of skill. The operator must know the amount of resistance that each

---

* It would be too much to carefully analyze all these derivative positions in this little text-book; they must be taught by an educated instructor.

group of muscles is capable of standing. He must be very careful not to overtax his patient, who is often tempted to exert his muscles beyond their natural strength. This danger is avoided in the passive movements, since pain will be the result of too great force.

The careful operator must study every case, and by repeated questioning estimate the patient's strength and regulate the resistance accordingly. The trained masseur soon satisfies himself in this respect, and by adapting the manipulations and movements to existing conditions, obtains good results.

THE PHYSIOLOGY OF THE MOVEMENT TREATMENT.

The *Movement Treatment* is not shrouded in mystery, nor is a minute knowledge of Anatomy or Physiology necessary to understand its nature and comprehend its workings. Its physiology is very simple and easily understood, because it always endeavors to follow the laws of nature.

Motion and activity are the principal characteristics of man; and all parts of the body are so formed as to fulfill their proper functions.

By the law of metamorphosis, every particle, after remaining a certain time in the body, is cast off, to be replaced by a new one. This alteration is carried on very slowly and almost imperceptibly, but without interruption.

Every one knows that it is impossible to abstain from food and not lose in weight and flesh. This loss indicates that the body is consuming itself, under a chemical process called *combustion*, by which heat is produced, and carbonic acid, water, etc., excreted by the lungs, the skin, the kidneys, and the intestines.

The process may be too rapid or too slow. The

first takes place in fevers, with their high temperature and great emaciation; the second, in many chronic disorders, with lowered temperature and lowered vitality.

Those organs which are in a state of permanent activity are most likely to suffer from over-work; but there is danger of the opposite extreme in the muscular system, so much of which is dependent for action entirely upon the exercise of will.

This great muscular system, with the nerves and vessels by which it is supplied, and the joints which it controls, comprises about nine-tenths of the whole organism.

Generally speaking, the action of the voluntary muscles is reduced to a *minimum*. How much of the great muscular system has the clerk brought into use? Only the muscles of the arm, the rest remaining inactive, and these muscles are so overtaxed, as to cause an irritation of the nerves communicating with them, and the result is nervous disorders, such as writers' cramp.

Aside from what their occupation affords them (and that is more or less defective), most persons have no other exercise than the daily walk to and from their business, which rarely exceeds an hour a day. While this exercise is better than none, its benefits are often overestimated. In walking, only certain muscles are actively engaged, and even

those very imperfectly. The muscles of the leg are used in taking the step and the muscles of the back in keeping the body upright, but this exercise, with its uniform nature, is of less value than any other.

It is necessary to give the muscles alternate work and rest. In walking, the muscles of the back are kept in a permanent state of tension, so that they have not the time perfectly to contract and relax, which is essential to beneficial exercise.

Although, from a purely hygienic standpoint, walking in the pure air is of great benefit, aiding respiration, yet the daily walk to a given place becomes mechanical and automatic, no attention being paid to the movements by the will power.

It is evident to all, that in the various motions of the body or the limbs, a change is taking place in some of its tissues by means of *combustion.*

First, this activity creates heat, the intensity of which can be estimated, but not the amount. Second, a certain amount of waste material is thrown off and absorbed by the veins and the lymphatics, to be eventually excreted from the body. The creation of heat, which in a few minutes reaches several degrees, is soon made evident by copious perspiration.

The chemical change produces carbonic acid and other substances, which cause the feeling of languor. This sense of fatigue remains, until the

products of the change are carried away by the blood vessels and the lymphatics.

By this process, which is constantly going on in the working muscles, some part of the tissue is consumed, but the loss is compensated by the nourishment which it receives from the blood.

This exercise demands a greater supply of blood, and neither its *quantity* nor its *quality* can be diminished without seriously endangering health.

To replenish the blood, the lymphatics carry the digested food from the stomach and intestines into the blood-circulation. But before it is in a condition to nourish the body it must be carried to the great vessel of the lungs, where it is brought in contact with oxygen.

By proper exercise the respiratory movements become longer and deeper, and the capacity of the lungs is very much increased.

The same stimulating effect is produced upon the circulatory system. An increased amount of blood is sent to the different parts, necessitating a freer circulation.

Thus we find that exercise systematically applied produces direct and positive action upon the *Circulatory*, *Digestive* and *Respiratory* systems.

Since carbonic acid gas is carried off through the lungs, and water through the kidneys and skin, we can easily comprehend, that exercise will aid

materially in hastening the elimination of such waste.

Of course, in the process of combustion, heat is necessarily produced, and if the excess is not carried off, serious results may ensue.

In health, Nature has provided proper facilities for carrying off all heat above the normal amount, by exhaustion from the skin and lungs.

MECHANICAL ACTION OF MUSCLES.

There is also a mechanical process that takes place in every kind of muscular work, for when the muscle contracts, its mass is condensed, and the soft parts near the muscle are exposed to a very strong pressure.

This fact has a very important bearing upon the veins and the lymphatics, and upon the fluid which these vessels carry to the heart.

While the heart controls the action of these vessels, much aid is afforded them by the temporary pressure of the contracted muscles, and thus we see that exercise stimulates and increases the circulation in the veins and lymphatic vessels.

But these are not all the results that are produced by proper exercise. In voluntary muscular action, as a rule, one or two joints are set in motion.

These joints are protected to prevent their bony surfaces from coming in contact with each other. While the motion is a rubbing or friction movement, exercise properly taken is free from all danger; moreover, the joint is decidedly benefited by such action, nutrition to the part being increased.

Generally, where the muscles are attached to the

bones, large *processes* or elevations are found, and the greater the muscles the larger the processes. This must indicate an increased nutrition to the bone, as well as increased strength to the osseous system.

The effect of exercise is not only chemical and mechanical, but also physiological.

The voluntary movements are what separate animals from plants.

The higher we go in the scale of animal life, the more perfect is the mechanism for executing the various movements necessary to its existence. We find a finer muscular development in connection with a more highly developed *nervous system.*

Involuntary motions are adjusted by the *Sympathetic Nerve System,* while the voluntary movements are controlled and regulated by the *Cerebro-Spinal Nervous System.*

That mysterious power which we call *will* imparts, at times, an impulse to muscular activity, and at others it restrains and impedes it.

Whatever the nature of the will, we know that when an impulse is generated in the brain, it is carried to the nerves of the spinal cord, and from them to the peripheral nerves, and thence to the muscle, which causes what we call contraction.

Thus we see that exercise is not so simple a thing as is commonly supposed, *but, on the contrary, it is*

a complex process involving the brain, the spine, the nerves and the muscles.

As the activity of a muscle produces a constant change in the circulation, so this same action will greatly influence the *substance* of the nerves themselves.

This applies only to motor nerves, although some authors claim that exercise has an indirect effect upon the Central Nervous System.

At times physicians employ certain remedies called *Derivatives*, the object of which is to relieve certain parts and certain conditions, by acting upon other parts of the body. For instance, by the use of purgatives, to relieve portal congestion or to remove a sluggish circulation in the brain. In some mental disorders, as in melancholy or hysteria, the same theory directs that the mind should be constantly employed, so that the patient may have no time to think of himself.

Again, when there is a disturbance in the normal condition of the motor nerves, as in spasms, it may be removed by a strong and decided impression upon the Central Nervous System through sorrow, sudden terror, etc., or by an impression upon the nerves, by burning.

When there is any disturbance in the Central Nervous System, we can often, by employing agents to act upon the motor nerves, remove its cause.

We reach this conclusion because persons suffering from irritation of the Central Nervous System are generally those who use their motor nerves but little. Again, it is a common experience for the well-trained masseur to see these patients improve very rapidly, and be finally cured by fixed duplicated active movements.

Thus we conclude that active movements have a beneficial effect upon the nervous system, direct upon the motor nerves and indirect upon the central and sensitive nerves.

What we have said about the effects of the movements has been of a general character, but it is necessary to understand the *local* effects upon the different organs of the body.

When treating a local affection, the movements or manipulations are to be applied in such a way that the affected part will derive the benefit. When the circulation is feeble in certain parts, the muscles in the neighborhood must be made to act, so that the blood will circulate more freely in the part diseased.

THE APPLICATION OF MASSAGE AND THE SWEDISH MOVEMENTS TO VARIOUS DISEASES OF THE BODY.

In applying the movements and massage Ling's and Mezger's systems have generally been adopted. Professor Hartelius, of Stockholm, in his admirable work on Ling's system, pays less attention to massage and more to the movements than the author.

The Movement Treatment, being an invigorating remedy, is recommended principally for chronic diseases, where either the whole organism or only a part is weakened.

GENERAL WEAKNESS.

Apply general massage over the limbs and the body. Follow with Passive Flexion and Extension of the extremities. Finally, give Percussion * (hacking) of the back, if the patient's strength permits. The first treatments should last from 30–40 minutes, gradually increasing to an hour.

---

* Wherever the expression "Percussion" is used the author means the Hacking.

ANÆMIA.

For this disease some authors recommend general massage of the whole body, others recommend a complete series of movements. *A series of well-selected movements* will perhaps be a more effective agent in renewing the blood. This treatment must be only by passive movements, and such as will aid the *digestion*, the *circulation* and the *respiration*.

The following series, recommended by Professor Hartelius, has frequently been used with success :—

1. S. Raising of Chest.*
2. Half L. Rotation of Feet.
3. Massage of Abdomen.
4. S. Rotation of Arms.
5. High S. Rotation of Body.
6. Half L. Flexion and Extension of Legs.
7. Massage of Abdomen.
8. St. Percussion of Back.

The first movement is for respiration, extending the chest. The air is inspired more freely and a greater quantity of oxygen brought in contact with the blood. 8–12 times. The second carries the blood to the feet, which are generally cold; the third aids digestion and increases the appetite; the

---

* S. means sitting; St., standing; L., lying; Kn., kneeling; Sp., suspending.

fourth, see No. 1 ; the fifth affects the great venous system ; the sixth increases circulation in the lower extremities ; the seventh is an abduction movement, and the eighth has a refreshing action on the whole system.

The movements are scientifically arranged to remove the tired feelings, the lost appetite, the cold hands and feet, the backache, and all the symptoms we find in an anæmic patient.

It is necessary, as in all cases, to note how the patient bears each movement. If any are too strong, they must be omitted.

If there are any abdominal affections, special attention must be paid to them in the selection of the movements.

HYSTERIA.

For Hysteria we use such manipulations as will act directly upon the peripheric nervous system. The general massage, followed by a few rotary movements of the extremities, is to be recommended.

CHOREA.

If the disease has advanced so far that the child has no control whatever over the limbs, place him on a couch or bed, one operator standing at the head, holding the arms, another stand-

ing at the feet, grasping the lower extremities. Begin with easy stroking with the palm of the hand, over the extremities and the chest, gradually increasing the strength; then turn the patient over on his face, and continue the firm stroking over the back and neck. The full treatment should last an hour, and be repeated daily for four or five days.* As soon as improvement is visible begin with certain passive movements, such as Flexion and Extension of the extremities, Separating and Closing of the knees, Bending of the head, Depression and Elevation of the arms.

The patient is soon able to take duplicated active movements, and is finally instructed in general active movements or calisthentics, the operator keeping exact time.

The trouble cannot be overcome in less than from 4–8 weeks, the movements being applied daily, There is often a relapse in the second week, but strong treatment, with special attention to the duplicated active movements, will yield good results in the majority of cases.

---

* Recommended by Blaché.

PLETHORA.

In this disease we use movements such as will attract the blood from the head and produce muscular activity.

1. S. Raising the Chest.
2. Half L. Rotation of Leg.
3. S. Rotation of Body.
4. Half L. Rotation of Feet.
5. St. Rotation of Head.
6. Kn. Turning of Body.
7. Beating of Sacrum.
8. S. Rotation of Arms.
9. S. Percussion of Head, with Shaking and Stroking.

INSOMNIA.

There are certain movements which so affect the central or sympathetic nerve-system that they are called by some authors "sleeping-movements."

As a rule, the general active movements are sufficient. The treatment should always be applied at bedtime, although the result will not be visible until the fourth or fifth treatment. The following manipulations and treatments will prove beneficial:—

1. General Massage.
2. S. Depression and Elevation of Arms.

3. Half L. Flexion and Extension of Legs.
4. S. Turning of Body.
5. Separating and Closing of Arms.
6. L. Raising of Body.
7. St. Bending of Knees.
8. Massage of head.

APOPLEXY.

Experience shows that even old cases of paralysis are very often improved, and sometimes completely cured, by mechano-therapy. Its advantages consist in being able to work upon the entire nerve-system as soon as the least activity is apparent in the affected side.

The massage is used at first to irritate the nerves and to increase nutrition. It will *always* be of some benefit, provided the system has power to react.

When there is active power in the affected side, use, in connection with the massage, the following movements (for the right side):—

1. S. Raising of Chest.
2. Half L. Rotation of Legs.
3. S. Rotation of Right Shoulder.
4. Flexion and Extension of Right Leg.
5. Depression and Elevation of Right Arm.
6. Pressing and Shaking of Right Leg.

7. Pressing and Shaking of Right Arm.
8. St. Percussion of Back.

Paralysis from accident, gout or rheumatism is very often treated by massage, the result depending upon the condition of the affected nerves. When caused by poison, mechano-therapy is recommended principally as a stimulating remedy, when the patient is convalescent.

TABES.

Apply massage of the spine in connection with Pressing. Massage of the abdomen, with Pressing above the bladder, and Pressing and Shaking of the extremities are frequently used. Some authors recommend Extension of the legs, Pulling of the legs and Beating of the sacrum. The movements should be refreshing and invigorating, and great care should be taken not to over-exert the patient.

NEURALGIA.

Diseases of the peripheric nerves are more successfully treated by mechano-therapy than are affections of the central nerve-system. Most neuralgias yield readily to massage, and in cases of *sciatica* it has been used with most excellent results.

For the latter disease, if the right leg is affected, use—

1. Stroking of Right Leg (from behind).
3. Percussion and Beating over the nerve.
3. Flexion and Extension of Right Leg.
4. Raising of Leg.
5. Beating of Sacrum and Right Leg.

Some of the manipulations must be repeated in the series 2–3 times. In raising the leg, place it, if necessary, on the shoulder, and bending up and down, extend the sciatic nerve as much as possible.

Rheumatic neuralgias in other nerves, as in the *trigeminus*, so often found in anæmic women, are often relieved by massage in a few weeks.

Use freely Punctation over superficial nerves, and firm Kneading and Stroking with the thumbs. If the nerve is very tender begin with a slight introductory Stroking with the thumbs.

In some cases it may be advisable to use massage of the head, as described in Local Massage.

AFFECTIONS OF THE RESPIRATORY ORGANS.

Respiration is altogether mechanical, depending upon the constitution of the muscles of the chest, the extension of the latter, and the quantity of air inspired. If the capacity of the lungs be increased,

all difficulty of breathing, coughs, etc., caused by an imperfect respiration, will soon disappear.

In cases where defective respiration is the result of weakness of the respiratory muscles or of deformities of the chest, the movements have proved the best means for increasing the capacity of the respiratory organs.

The effect of the Medical Gymnastics is to necessitate frequent and deep inspirations, and thus increase the capacity of the lungs, promoting pulmonary circulation and causing a more complete oxygenation of the venous blood.

The following affections of the respiratory organs have been successfully treated by massage and movements.

EMPHYSEMA.

In applying the movements for this affection the principal points are to act first upon the digestive organs, if they are so disturbed as to prevent natural respiration; second, upon the organs controlling the circulation through the pulmonary vessels; third, upon the chest directly, to restore the intercostal muscles.

Stroking of the chest may be used in connection with the following movements:—

1. S. Raising of Chest.
2. Half L. Rotation of Feet.

3. S. Raising of Chest with Shaking.
4. S. Turning of Body.
5. Massage of Abdomen.
6. See No. 3.
7. See No. 4.
8. St. (arms up) Clapping of Chest.
9. St. Percussion of Back.

CATARRH OF THE LUNGS.

Certain manipulations (Hacking, Clapping and Shaking) on the chest have been used to induce expectoration. The movements must be such as to cause muscular activity and increase the secretion from the skin. Action upon the digestive organs will produce a derivative effect upon the lungs.

PHARYNGITIS AND LARYNGITIS.

Because massage of the neck and throat induces such an evacuation of the blood vessels, it has been freely used for acute catarrhs of the pharynx, windpipe and nose. We are able by careful examination of the inflamed mucous membranes, before and after the application of massage, to notice directly the result. Not the symptoms only, but the headache, the pain in the forehead, the dizziness, etc., resulting from the stagnation of blood, disappear after a few

treatments. By massage we also act upon the tonsils and other glands, thus assisting expectoration.

Croup may sometimes be speedily relieved. *Weiss* has noted a case of croup in which a single application removed the most imminent peril.

The massage of the neck and throat ought to be more freely used, and should be recommended by practicing physicians.

CONSUMPTION.

Some respiratory movements are used to make the patient more comfortable, increasing the inspiration and assisting the heart in its action.

Massage of the lower extremities is sometimes applied to relieve the swelling and to increase the circulation.

BRONCHITIS, NERVOUS ASTHMA, etc., are frequently treated by massage, generally in the form of Strokings of the entire chest, the patient inspiring deeply at the same time. The séance must not exceed 20 minutes.

DISEASES OF THE HEART.

Massage and movements are indicated in affections of the heart caused by nervous debility, anæmia, diseases of the stomach, etc. The movements mostly used are :—

Sitting, Raising of the chest, with Shaking, to produce strong respiration ;

Rotation of the extremities, to assist the heart in its action ;

Rotation and Turning of the body, to give effect upon the great venous system ;

Centripetal Stroking, to remove the subcutaneous effusions.

In organic diseases of the heart, movements are recommended by some of the most eminent physicians. They apply movements to support the heart in its action, generally using such as will increase the circulation in the distant parts of the body. Direct treatment over the region of the heart, in the form of Clapping and Punctation, is also used.

HYPERTROPHY OF THE HEART.

Almost all who have used movements for hypertrophy, have found them of great benefit. Apply :—

1. S. Raising of Chest.
2. Half L. Rotation of Feet.
3. S. Rotation of Arms.
4. L. Extension of Legs.
5. Punctation over Heart.
6. Half L. Separating and Closing of Knees.
7. S. Rotation of Body.
8. St. Clapping of Chest.

From this series, it will be easy for the masseur to select movements for affections of the heart, where mechano-therapy is not contraindicated.

DISEASES OF THE DIGESTIVE ORGANS.

In applying mechano-therapy for these affections, we must call attention to the fact, that most of them develop from circulatory disturbances, the vessels being relaxed.

There are different ways to apply massage of the stomach ; one has already been described. Another way is to place the fingers about two inches below the ribs and, with Pressing, move the hand upward in connection with Shaking. In a special position (half lying, with knees flexed, so as to relax the abdominal muscles) it is quite easy to reach the stomach by Pressing, Shaking and Kneading.

Massage of the stomach is indicated in all affections caused by circulatory disturbances or general weakness (atony) of the parts.

DYSPEPSIA.

1. Massage of the Stomach (15 minutes).
2. Percussion of Back.
3. High St. Pulling of Legs.
4. S. Turning of Body.

5. Flexion and Extension of Legs.
6. S. Rotation of Arms.

The movements are repeated if required.

HABITUAL CONSTIPATION.

Massage and movements are now freely used for constipation. The treatment must always be local in the beginning, and afterward constitutional.

1. Local Massage (10–20 minutes).
2. St. Bending of Knees (hands on hips).
3. L. Raising of Body.
4. S. Turning of Body.
5. St. Beating of Sacrum.
6. See No. 3.
7. See No. 4.
8. Flexion and Extension of Legs.
9. See No. 3.
10. St. Percussion of Back.

Schreiber says: "Chronic constipation offers the most signal successes to mechano-therapy, for it is possible to make direct mechanical pressure upon the cœliac and hypogastric plexuses, and through these to reflexly excite peristalsis; furthermore, the vasomotor nerves and the intestinal muscular fibres are directly stimulated by the squeezing to which they can be subjected." The

treatment is indeed very effective, and it is not rare to obtain an evacuation of the bowels immediately after the manipulations.

HEMORRHOIDS.

Closely connected with the former disease is the accumulation of blood in the abdominal parts called hemorrhoids.

By the manipulations on the abdomen we assist the intestines in their action; by Rotation and Turning of the body we control the great venous system, and by Beating over the sacral region we increase the circulation through the rectum.

The following movements have been used with success:—

1. Massage of Abdomen (10 minutes).
2. St. Bending of Knees.
3. Separating and Closing of Knees.
4. L. Raising of Body.
5. Rotation of Legs.
6. Beating of Sacrum.
7. Rotation and Turning of Body.

Although we highly recommend the movements for this affection, we must acknowledge that one treatment a day is not enough. The patient must be instructed in certain calisthenics which give a direct effect upon the great venous system.

ENLARGEMENT OF THE LIVER.

We use such movements as are calculated to increase the circulation through the great venous system.

1. S. Rotation of Arms.
2. L. Rotation of Feet.
3. S. Raising of Body.
4. L. Rotation of Legs.
5. S. Rotation of Body.
6. St. Flexion and Extension of Feet.
7. Massage of the Liver with Clapping.
8. Separating and Closing of Knees.
9. See No. 3.
10. St. Percussion of Back.

The movements must be performed twice a day, and the patient instructed in certain calisthenics.*

DIABETES.

Some authors report cases of diabetes successfully treated by mechano-therapy. Schreiber says: "The best effects will ensue, when the greatest number of muscles are brought into play. It is necessary to select such movements as will call into action equally all the great muscle-groups." In Paris, where diabetes is common, the patients are advised

---

* "Home-Gymnastics."—Hartelius.

to take very strong bodily exercise. The quantity of sugar secreted must indicate a deficient oxygenation of the materials produced by the liver. Strong bodily exercise, which increases oxygenation in all the membranes of the body, ought to eliminate the abnormal deposit of sugar.

The proper exercise for this affection is not yet well determined. When the patient has a constitution strong enough to bear the treatment, use the following movements :—

1. St. Percussion of Back.
2. L. Rotation of Feet.
3. Separating and Closing of Arms.
4. S. Bending of Body backward.
5. Flexion and Extension of Legs.
6. Raising of Body.
7. Flexion and Extension of Arms.
8. Separating and Closing of Knees.
9. St. Percussion of Back.

UTERINE AFFECTIONS.

Massage is applied directly to force the organs to contract, and the movements to regulate the circulation through the abdomen. Atony and dislocations of the organ are generally treated by massage; disturbances in regard to menstruation only, by movements.*

* *Dr. Douglass Graham* makes the only exception.

AMENORRHŒA.

1. S. Raising of Chest.
2. Rotation of Feet.
3. S. Turning of Body (inspiration).
4. S. Rotation of Body.
5. Beating of Sacrum.
6. See No. 3.
7. Rotation of Arms.
8. St. Percussion of Back.

Some of the movements must be repeated several times in the series, and when treating extremely anæmic women great care should be taken not to give too many.

DYSMENORRHŒA.

1. St. Turning of Body.
2. Rotation of Feet.
3. Beating of Sacrum.
4. S. Raising of Body.
5. Pulling of Legs.
6. Separating and Closing of Knees.
7. Beating of Sacrum.
8. St. Percussion of Back.

This series of movements will relieve the intense pain that many women suffer prior to the periods.

RHEUMATISM.

The Active Movements, as well as Hacking and Beating of the affected parts, are of great benefit in cases of Rheumatism. In severe attacks the treatment should be applied twice daily. The patient must move his limbs freely instead of keeping them inactive. 10–30 treatments are generally sufficient to effect a cure.

Begin with general massage over and around the affected part; continue with local massage on the diseased muscle or joint, and finish the treatment with a few movements that give effect upon the circulation and respiration.

LUMBAGO.

Use massage of the back as specially described. Apply the treatment twice or three times daily until relieved.

Some cases have been cured with only one application, but it generally takes from *two* to *four days* to conquer the trouble.

STIFF NECK.

This affection is somewhat similar to lumbago, and has been treated with like success. Begin with massage of the sterno-cleido-mastoid and continue

with Pressing and Shaking. A few (in the beginning passive) movements will finish the treatment. Though at first painful, the patient will in a few days be relieved by the treatment.

GOUT.

Between the attacks massage is often prescribed, especially for *podagra*. The treatment must be given for general activity of the muscles.

1. St. Bending of Knees.
2. St. Bending backward (back supported).
3. L. Flexion and Extension of Legs.
4. S. Turning of Body.
5. S. Rotation of Arms.
6. Flexion and Extension of Feet.
7. S. Raising of Body.
8. Beating of Sacrum.
9. Massage of Stomach.
10. St. Percussion of Back.

The general massage is always of benefit, and firm friction on the sole of the foot is very effective in cases of podagra.

PROGRESSIVE MUSCULAR ATROPHY.

Use massage in the neighborhood of the affected muscles and upon them, and such movements as are calculated to increase circulation through the

diseased parts. It must be admitted that little can be done without the aid of electricity for this affection.

LATERAL CURVATURE OF THE SPINE.

The movements for this affection are many and based upon different principles. If the curvature is only of a muscular nature, and the muscles of the convex side are weakened or pathologically changed, it is apparent that the principal aim of the treatment is to restore the affected muscles. The operator must use those active movements which especially invigorate the muscles of the back. The passive manipulations are not of much service, although sometimes recommended.

For *Single Curvature*, before there is any deformity in the spine itself, use the following movements :—

I. *Standing, Bending to the Side.*—The patient stands with hands clasped on the back of the head. The operator places one hand on the highest point of the curvature, and the other on the opposite hip, the patient bending slowly about ten times.

II. *Lying on the Side, Bending of Trunk.*—The patient lying with legs on a couch or table, in side-position, the convex side up. The movement must be performed slowly, as it is very effective. If strong

enough, the patient is to keep his hands on the back of the head.

III. *Standing, Raising of the Arms.*—The patient is standing with thighs supported; the arms are raised by the patient while the operator resists, grasping the hands.

If one shoulder-blade is lower than the other, work only with the corresponding arm.

These three movements are of the greatest importance, and must be repeated at least three times at every séance.

By special derived positions, we can prevent deformity of the scapula. The most astonishing results have been obtained in slight curvatures by these movements alone.

When the curvature is DOUBLE, we must have movements to extend the whole back, and then we use:—

I. *Suspending, Bending of Neck.*—The patient is suspended a few inches from the floor. The operator, standing at his side, places one hand on the forehead, the other on the back of his head. The patient moves his head forward and backward 8–12 times, the operator resisting, according to the strength. The movement causes both a passive and active extension of the back.

II. *Sitting, Raising of Back*—(previously described).

III. *Suspending, Separating and Closing of Legs.*— If the patient is weak, be careful in beginning to have somebody to support his sides.

IV. *Standing, Raising of Body.*— The patient, standing with thighs supported and hands clasped on the back of the head, bends forward as far as possible. The operator, standing behind and supporting the feet, places one hand on each side of the spine. The patient raises his body, while the operator resists.

This movement is very important, as in a double curvature there is not only the curve sidewise, but also a turning of the vertebræ. By the strong extension of the curvature the turned vertebræ resume a more normal position.

All these movements must be repeated several times in each series, and must be followed by a raising of the arms upward and a sinking of the arms. A rest between every movement is necessary, the patient lying down in a horizontal position. The movements are preferable to machinery, the patient being easily instructed how to practice them with home assistance. This treatment for curvature of the spine is very little known in America, but if given a fair trial, and the movements properly performed, many unfortunates might be saved from being crippled for life.

DISEASES OF THE JOINTS.

Acute inflammation of the joints may be attended by different symptoms, such as tenderness, swelling, stiffness, etc. Even parts in the neighborhood may become diseased from the same cause.

Dr. Mezger, of Amsterdam, the most skillful masseur of the world, has made a special study of the effect of massage upon affections of the joints. We will only mention the most common.

SPRAINS.

In sprains it is necessary to begin with slight, careful introductory massage, in the form of centripetal Stroking, the pain being very severe. The strength of the manipulation must not be increased until most of the swelling is gone, and the operator must be very careful to work upon every part in the neighborhood of the joint, applying, as a rule, Stroking only. Then begin Kneading the muscles and tendons, always ending with Stroking. The treatment is greatly assisted by water applications at night. A flannel bandage must be used. Mezger recommends some movements from the beginning, but I have found the best results from the *massage alone*.

In contraction of the tendon Achilles, Turning

and Rotation of the foot, also Flexion and Extension, ought to be used after the fifth treatment.

The weakness of the joints after a sprain is frequently relieved by massage, the operator being careful to apply properly the flannel bandage after each séance.

SYNOVITIS.

Massage is always indicated in cases of synovitis, so long as there is no purulent inflammation. The introductory massage, in the form of centripetal Stroking, is to be used with great care. When the pain is diminished some passive movements may be applied, as Flexion and Extension. If the joint is very sore, as is usually the case, work in its neighborhood with Kneading and Stroking.

In chronic inflammation of the joints it is always necessary to pay special attention to atrophied muscles, above and below the joint.

In anchylosis always apply very hot water before every séance.

Evald Johnsen, a Scandinavian masseur, out of one hundred and thirty-seven cases of synovitis, cured ninety-four perfectly, improved thirty-nine, and treated only four without any result.*

---

* The author feels that the reason Massage is not more freely used in cases of Synovitis is, that when it has been tried, it has not been given a fair trial.

The patient must not be kept in bed, but must use his limbs freely.

Massage not only relieves stiffness of the joint, but also prevents total anchylosis. The treatment must continue not for weeks, but for months.

FRACTURES.

When the splints and dressings are removed from a fractured part there is always more or less stiffness in the unused joints. As a rule, the massage should not be used until there is a firm union of the bony parts.*

Apply introductory massage the first two or three days. Then knead the whole extremity, being careful not to use too much pressure over the break. After a few séances, the passive movements (Rotation, Flexion and Extension) should be used. It is sometimes sufficient to work upon one special part; for instance, the *rectus femoris*, which is generally contracted in a fracture of the patella.

The active movements are sometimes indicated.

---

* I have often been called to apply Massage to a broken limb to relieve the swelling, thus making the injury more accessible to the surgeon.

DEFORMITIES OF THE FEET.

In cases of club-foot use massage on the foot, and on the outside of the limb up to the knee. A few Turnings and Flexions are very beneficial.

In cases of "pigeon-toes" use similar treatment as for club-foot.

Cases of flat-foot cannot very well be treated by massage, as the cause of the affection is too deep-seated.

In other deformities of the feet the aim of the treatment must be to work the affected part back to its proper position by Turning, Rotation, Flexion, and Extension, etc. Local massage is used to invigorate the muscles and to relax contracted tendons.

AFFECTIONS OF THE EYE.

Massage is used for several chronic inflammations of the eye. By local massage we increase the circulation around the eye, and act directly upon the cornea. When we desire to see more clearly we rub the eyes, instinct telling us to remove from the cornea such particles as are stagnated. Certain swellings of the eyelids have been treated with great success by massage in the clinics of Schmidt, Rimpler, Rossander, and Pagenstecher.

Cases of *maculæ corneæ* (granules on *the* cornea)

have been very successfully treated. In some cases it is wise to apply massage on the whole front part of the affected side, and also on the same side of the neck.

General massage is frequently used to strengthen the nervous system, thus giving effect upon the optic nerve.

Manual treatment must never be applied to the eye without an order from a physician.

AFFECTIONS OF THE EAR.

Some authors (Politzer, Eitelberg) recommend massage for certain affections of the ear, and (in my practice) I have often been able to relieve severe pain, in cases of Otitis, by massage only, in the form of centripetal Strokings over the mastoid process and the corresponding side of the neck, as recommended by Gerst.

In a few cases local massage has been applied to the ear with good results. (Meyer.)

GENERAL REMARKS.

I. It is rather difficult to fix the time for a massage-treatment. Dr. Mezger works only a few minutes (5–12 minutes), but I am satisfied that he accomplishes more than many do in half an hour. As a rule, use shorter time for a local than for a constitutional affection.

In the rest-cure, some eminent physicians begin with 15-20 minutes, gradually increasing the time to an hour or even longer.

II. The weakest person may be treated by massage, since it is a remedy so easily adapted to circumstances and so perfectly controlled.

III. The patient must not feel any pain or disagreeable fatigue after the treatment. Should such be the effect, stop the treatment for a few days, and on resuming it, regulate the pressure carefully.

IV. After each treatment the patient should rest for at least half an hour in a comfortable position.

V. The patient should be urged to refrain from excessive eating and drinking, and the treatment should not be applied within two hours after meals.

VI. The operator must breathe freely while giv-

ing the treatment, and must be in a proper position, neither too close to the patient nor too far off.

VII. The temperature of the room should be about 70° Fahr.; the operator should always be careful to cover up the part masséed and avoid having any draft from windows or doors.

VIII. The operator should possess vigorous health and muscular strength. He should be cheerful and of refined habits, and should have a fair education, with a perfect knowledge of the principal facts in anatomy and physiology.

IX. Massage treatment is an *art* which cannot be SELF-ACQUIRED, but must be taught by an experienced instructor.

X. The manual treatment of disease ought to be regulated by the medical profession, hence the physician's order should be properly carried out, even though the operator be of a different opinion.

THE MASSAGE TREATMENT IN AMERICA.

There is no medical agency that has been so much abused as Massage. When I came to America I was anxious to find out how the manual treatment of disease was carried on here. I soon learned that there were no laws requiring registration, but that I could find the Masseurs through the physicians and the daily papers. I visited several of these, and submitted myself to treatment by some. I discovered there was no science whatever in their treatment; they seemed to entirely ignore the fact that nature had provided me with sensitive nerves. Most of these operators used no oil, and consequently the hair bulbs of the limbs operated on by them became inflamed. I do not know where they had acquired their knowledge of Massage, or, as they termed it, "The rubbing." One of them was sure that he had an inherited power of magnetism, etc., because his father had been "a prominent rubber" in Germany. Another, I understood had been working in a hospital, and while the building was undergoing repair he was offered a position in the basement—whether to wash dishes or not,

I could not find out—but he declined, and left the place to become "a rubber," and is rubbing still.

Not only is the Massage treatment practiced by such persons, whose muscular power should be exerted on something less sensitive than the diseased and weakened human body, but it has also been used as a cloak for vicious purposes.

It is reported that the police in Chicago have raided a number of "Massage Shops," and one of the leading daily papers of Philadelphia asserted that a raid had been made upon similar houses in this city, where the Massage treatment was used as a cloak for vice.

As long as there is an abundant supply of both Masseurs and Masseuses, there is no necessity that a woman should be treated by a man, or a man by a woman. There are, of course, exceptions, as, for instance, that of a trained Masseur who has studied at a university or of a trained female nurse who is attending a patient in his family.

I see no reason why such a powerful, remedial agency as Massage should not be fully controlled by the medical profession, as it is in Europe.

It seems to me that the physician who recommends an incompetent person to attend his patients does wrong, and we have frequently heard sad experiences from patients, whose social standing ought

to have protected them from being imposed upon by incompetent, uneducated persons.

Not long ago there was a Masseur in this city who was given a case of sprain at the ankle-joint. The surgeon performed a very slight flexion of the foot, so as to ascertain the amount of contraction in the tissues around the joint. At one of the first séances this Masseur thought he would repeat the flexion, and a fracture was the result.

Such things are unpleasant to bring before the public, but it is quite proper they should be noticed in a text-book on Massage, when there is danger that one of the most natural and powerful medical agencies will be neglected or forgotten, because it has not been duly protected, but practiced by persons who would be more appropriately employed at the wash tub or in the kitchen.

Let me now say a few words about educated practitioners of the manual treatment. Some of them, and especially females, have been accused of thinking too much of themselves, of being too independent. Masseurs and Masseuses should remember that they are only using one special remedy, that nature has taught man to employ to arrest disease. Persons who are properly trained will not attempt to enter into competition with Medical Doctors, but confine themselves to the scientific

treatment that we have endeavored to analyze in this little text-book.

Were it not for abuses that have prevailed, the manual treatment of disease would no doubt be more universally adopted and recommended by the medical profession and the general public.

From this short sketch we conclude :—

1. That the Massage and Movement treatments should be applied only by educated and properly trained persons, with due regard to the physician's directions.

2. That the operator (if not a medical doctor) should be of the same sex as the patient, with only the two exceptions before mentioned.

3. That there should be a place where skillful and trained operators could have an opportunity of passing an examination and of registering, thus protecting not only themselves and the profession, but *the general public* also.

BOOKS ON NURSING.

FOR NURSES AND ALL ENGAGED
IN ATTENDANCE UPON THE SICK,
OR THE CARE OF CHILDREN.

☞ Dealing exclusively in books on medicine and collateral subjects, we are able to give special attention to supplying books for nurses. We have a large stock of works on Nursing, Hygiene, Popular Medicine, etc., Temperature Charts, etc. In purchasing from us Nurses receive the same benefits as medical students.

Catalogues of Books on Medicine, Dentistry, Pharmacy, Chemistry, etc., free, upon application.

Special attention given to orders to be forwarded to a distance, by mail or express. Upon receipt of the price, any book will be delivered, free, to any address.

P. BLAKISTON, SON & CO.,

1012 WALNUT STREET, PHILADELPHIA.

ACCIDENTS AND EMERGENCIES.

A Manual for the treatment of Surgical and other Injuries, Poisoning and various Domestic Emergencies, in the absence of the Physician.

By CHARLES W. DULLES, M.D.,

Surgeon to the Out-Door Department of the University and Presbyterian Hospitals, Philadelphia; Editor of the Medical and Surgical Reporter.

Third Edition, Enlarged. 12mo. . . . Cloth, .75

ILLUSTRATED.

SHORT LIST OF CONTENTS.

Preliminary Remarks.
Obstructions to Respiration.
Foreign Bodies in the Eye, Nose and Ear.
Fits or Seizures.
Injuries to the Brain.
Effects of Heat.
Effects of Cold.
Sprains.
Dislocations.
Fractures.
Wounds of all kinds, including the bites of Dogs, Cats, Snakes, Insects, etc.
Railroad and Machinery Accidents.
Hemorrhage—Bleeding.
Special Hemorrhages.
Transportation of the Injured.
Poisons and their Antidotes.
Domestic Emergencies, includes Cholera Morbus, Vomiting, Diarrhœa, Nervous Attacks, Earache, Toothache, Asthmatic Attacks, Croup, etc., etc.
Signs of Death.
Supplies for Emergencies.
The Surgical and Medicine Case, their contents and use, Bandaging, Poultices, etc.
Index.

*** This book should be in the possession of every head of a family, Nurse, Manufacturer, Police Lieutenant, Sea Captain, Hospital Steward, School Teacher, Druggist, etc. etc.

"Several attempts have been made to prepare a volume which would serve as a handy manual for reference in the time of need, in the absence of a doctor, but none have succeeded better than the present little work. It should be in the hands of all officers charged with the public conveyance of passengers, to be read, in preparation for emergencies, and afterward to serve as a book of reference."—*North Carolina Medical Journal.*

"This little manual contains simple directions for the preliminary treatment of accidents to all parts of the body and of such diseases as persons are suddenly seized with. Without profuseness or an unintelligible vocabulary, it contains in a small space a deal of useful information."—*New York World.*

"This is a revised and enlarged edition, with new illustrations, of the manual, explaining the treatment of surgical and other injuries in the absence of the physician. The simple and practical suggestions of this little book should be known to every one. Accidents are constantly occurring, and a knowledge of what should be done in an emergency is very valuable. Such a handbook should be in every home, placed where it can always be found readily.—*Boston Journal of Education.*

BOOKS ON NURSING.

LÜCKES. Hospital Sisters and Their Duties. By EVA C. E. LÜCKES, Matron to the London Hospital; Author of "Lectures on Nursing." 12mo. Cloth, $1.00

"I consider it to be a book which supplies a much needed want in nursing literature. As the moral as well as the technical standard for nursing women becomes higher, so will all such help toward the attainment of absolute excellence become of increasing value."—*From the late Alice Fisher, of the Training School for Nurses of the Philadelphia Hospital.*

"Sound, practical common sense characterizes this valuable contribution to the literature of nursing."—*Dublin Medical Journal.*

"To those aspiring to become hospital sisters this book will be invaluable."—*Therapeutic Gazette.*

TEMPERATURE Charts for Recording Temperature, Respiration, Pulse, Day of Disease, Date, Age, Sex, Occupation, Name, etc. In pads of 50, each .50

MURRELL. Massotherapeutics. Fourth Edition. Or Massage as a Mode of Treatment. By WM. MURRELL, M.D., F.R.C.P., Lecturer on Pharmacology and Therapeutics at Westminster Hospital, Examiner at University of Edinburgh, Physician to Royal Hospital for Diseases of the Chest. Fourth Edition. Revised and Enlarged. Illustrated. 12mo. Cloth, 1.50

PARVIN. Obstetric Nursing. Lectures delivered at the Training School for Nurses of the Philadelphia Hospital, by THEOPHILUS PARVIN, M.D., Professor of Obstetrics and Diseases of Women and Children in the Jefferson Medical College, Obstetrician to the Phila. Hospital. 12mo. Cloth, .75

THE

HYGIENE OF THE NURSERY,

INCLUDING THE GENERAL REGIMEN AND FEEDING OF INFANTS AND CHILDREN AND THE DOMESTIC MANAGEMENT OF THE ORDINARY EMERGENCIES OF EARLY LIFE.

BY LOUIS STARR, M. D.,

Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania; Physician to the Children's Hospital, Phila.

SECOND EDITION. ENLARGED AND IMPROVED.

WITH TWENTY-FIVE ILLUSTRATIONS.

12mo. 280 Pages. Cloth, $1.00.

*** This book contains very complete directions for the proper feeding of infants: 1st, From the maternal breast. 2d. By wet-nurse, including rules for choosing the woman. 3d, **Artificial Feeding.** This part of the subject is elaborated carefully, so as to include everything of importance, and will be found of great service to the monthly nurse. General and specific rules for feeding are given, and **Diet Lists** from the first week up to the eighteenth month, with various recipes for artificial foods, peptonized milk, etc. Directions for the sterilization of milk, substitutes for milk, preparation of food for both well and sick children, nutritious enemata. etc., and the general management of the Nursery.

"Dr. Starr's experience as Clinical Professor of Diseases of Children in the University Hospital and as physician to the Children's Hospital, with his eminence in private practice among juvenile patients, is ample warranty for the satisfaction and instruction to be found in this book. The dedication "To my Little Patients," shows the sympathy with which the writer enters upon the important discussion. The volume is entirely in the modern lines of preventive medicine—more important in the nursery than at any other time of life; because constitution building is going on then and there. In this admirable treatise, so clearly written that no mother need be deterred by fear of medical terms from making its teaching her own, Dr. Starr carries out the highest ideal of the modern physician, so to regulate the lives of his professional clients that the occasions are less frequent when he need be called in to act for serious complications. * * * * With the numerous good treatises on the subject that Philadelphia publications include, this intelligent work is the most distinguished, as it is also the latest work on complete Hygiene of the Nursery."—*The Ledger, Philadelphia.*