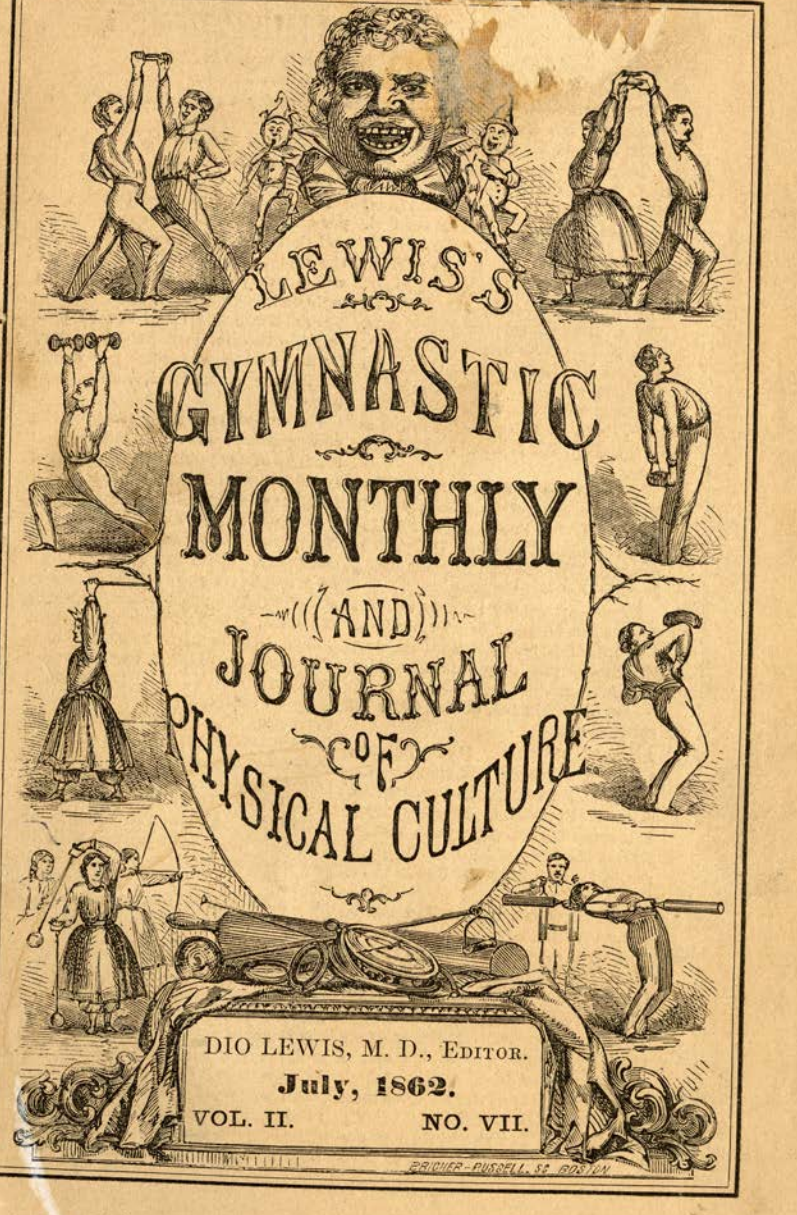


Mrs Mary V. Howe



LEWIS'S
GYMNASTIC
MONTHLY
(AND)
JOURNAL
OF
PHYSICAL CULTURE

DIO LEWIS, M. D., EDITOR.

July, 1862.

VOL. II.

NO. VII.

LEWIS'S NORMAL INSTITUTE FOR PHYSICAL EDUCATION, BOSTON, MASS. (Incorporated in 1861.)

DIRECTORS.—C. C. Felton, L.L. D., age capacity the Diploma of the Institute.
 President, His Excellency John A. Andrew, Rev. E. N. Kirk, Hon. Geo. S. Boutwell, Hon. Luther V. Bell, H. I. Bowditch, M. D., S. G. Howe, M. D., Rev. S. K. Lothrop, Rev. Jas. Freeman Clarke, Rev. Edward E. Hale, Rev. Warren Burton, N. T. Allen, Esq., Geo. N. Bigelow, Esq., A. G. Boyden, Esq., Prof. A. Crosby, John R. Manley, Esq., Rev. A. A. Miner, Hon. George Bradburn, Rev. Geo. M. Randall, Rev. E. O. Haven, Edward Jarvis, M. D., Hon. Alanson Hawley, Hon. S. E. Sewall T. C. Severance, Esq., Secretary, J. C. Burrage, Esq., A. A. Burrage, Esq., Otis Clapp, Esq., Dio Lewis, M. D., Treasurer.

FACULTY.—Thomas H. Hoskins, M. D., Professor of Anatomy; Josiah Curtis, M. D., Professor of Physiology; Walter Channing, M. D., Professor of Hygiene; Dio Lewis, M. D., Professor of Gymnastics.

The Institute held its first session during the summer of 1861, and on the 5th of Sept. celebrated its first "Commencement," graduating a class of fourteen.

List of Graduates of the Class of 1861.

ABBY W. MAY,	Massachusetts.
EMMA A. BUGBEE,	Massachusetts.
MARY C. BARNARD,	Massachusetts.
SARA A. PLUMMER,	Massachusetts.
ELEANOR W. WRIGHT,	Dist. of Col'ia
LYDIA N. M. SCOTT,	Virginia.
ANNA E. ROBERTSON,	Connecticut.
CHAS. S. ROYCE,	Ohio.
J. HENRY ROOT,	New Hampshire.
SYLVESTER SCOTT,	Virginia.
JOSIAH ROGERS,	Rhode Island.
GEORGE S. HASKELL,	Michigan.
CHESTER S. TUBBS,	Massachusetts.
ALLEN L. WOOD,	Vermont.

The Institute will hold two sessions annually, the first, beginning on the Second day of January, the second, on the Fifth day of July. Each term to continue Ten Weeks.

A faithful attendance during one term will secure to persons of aver-

age capacity the Diploma of the Institute.
 Tickets for the course, - \$75 00
 Matriculation fee, - - - 5 00
 Diploma, - - - 10 00
 Ladies will be charged twenty-five per cent. less than the above prices, and that reduction is made because of the unjust disparity of compensation which everywhere obtains between male and female labor.

Good board and room can be procured in Boston, during the summer, for \$3.00, \$3.50, and \$4.00 per week. During the winter term, from \$3.50 to \$4.50.

The compensation for teaching the new gymnastics is much larger than teachers of our public schools receive. Indeed, any qualified teacher of these new, fascinating modes of gymnastic training, would, in any part of the Northern States, manage badly, if the earnings were not five times as large as are generally received in those schools. As no permanent fixtures are used, any hall with good light and ventilation might be occupied.

Were five thousand teachers now ready, they could all enter upon a splendid business. The graduates of the class of 1861, notwithstanding the paralysis resulting from the great war, entered at once upon profitable engagements.

It may be a consideration of interest to some persons, that ladies or gentlemen in delicate health will, in the new occupation, soon become healthy and strong. An exception to such a result would be scarcely possible.

SWEDISH MOVEMENT CURE.

One department of LEWIS'S Gymnasium is devoted to the "Swedish Movement Cure." By no other means can Curvature of the Spine, Paralysis, and many other forms of Chronic Disease be radically cured.

An assistant of either sex will be in constant attendance, to render such aid as may be required in the prosecution of this special work.

NEW BOOKS ON PHYSICAL CULTURE.

THE NEW GYMNASTICS

For Ladies, Gentlemen and Children,

Will be published soon in a handsome volume of 300 pages, with more than 300 cuts, by TICKNOR & FIELDS.

This volume will contain all that is peculiar to my own *System of Gymnastics*, Schreber's *Free Gymnastics*, and the entire *Gymnastikon* with its 107 cuts.

FORTHCOMING MOVEMENT CURE WORKS.

Chronic maladies are found in nearly every American family. Weak spines, lungs and stomachs are well-nigh universal. Oceans of drugs have not improved us. A desire for restoration and a conviction of its possibility are general.

No thoughtful mind can study the great Swede without the undoubting faith that in his philosophy is found the hope of invalidism. *The loss of balance in muscle and in the circulation of the fluids, which is the essential condition of all chronic disease, is, with the most complete directness and success, overcome by the Swedish Movement Cure.*

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"AFFECTIONS OF THE ORGANS OF THE CHEST, WITH THEIR TREATMENT BY THE MOVEMENT CURE."

"AFFECTIONS OF THE ORGANS OF THE ABDOMEN, WITH THEIR TREATMENT BY THE MOVEMENT CURE."

"SPINAL CURVATURES AND OTHER DEFORMITIES, WITH THEIR TREATMENT BY THE MOVEMENT CURE."

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My heart is filled with the hope, that through these works thousands who have vainly sought relief in medicines and journeyings, may escape their sufferings and again enjoy the many blessings of our earthly life.

Most Respectfully,

DIO LEWIS, M. D.

NEW BOOKS ON PHYSICAL CHEMISTRY

THE LAW OF THERMODYNAMICS

By J. VAN DER WAALS
Dordrecht, 1901

THE VELOCITY OF CHEMICAL REACTIONS

By P. VAN DER WEGE
Dordrecht, 1901

THE VELOCITY OF CHEMICAL REACTIONS

By P. VAN DER WEGE
Dordrecht, 1901

THE VELOCITY OF CHEMICAL REACTIONS

By P. VAN DER WEGE
Dordrecht, 1901

movements, as would be prescribed by a judicious physician, will prove valuable.

The prejudice against gymnastics for those who have rupture, is not well founded. As a laxity of the abdominal muscles often predisposes to this disease, so exercises which invigorate these muscles, tend to contract the abdominal ring, and even to close it. Although exercising without the advice of a physician is not recommended in these cases, yet a slow execution of those movements which twist and bend the body, together with those which call into action the muscles of the thigh and abdomen, may generally be indulged.

CHAPTER VI.

Series of Dumb Bell Exercises for Ordinary, Every Day Use.

In selecting a group of dumb bell exercises which shall be adapted to meet the demands of daily life, it is necessary to obtain such a combination of series as shall tend to develop all the muscles of the system. By this it will be understood, that such a selection is to be avoided as would tend only to develop isolated groups of muscles. Adults, especially, will need to arrange their exercises, so that action and development may take place with the muscles connected with the abdominal and respiratory organs.

Those who have taken pains to acquaint themselves practically with our directions and disciplines of the dumb bell exercises, will find it easy to arrange the exercises according to their requirements. However, we will take occasion to arrange a few series, in order to indicate what are the right combinations for reaching,

through their use, a full, harmonic, physical development.

A.

A Lesson for Beginners.

1. Raise the dumb bells from the *hanging down* to the *oblique sideways* position and back again, four to six times.

2. The same movement, but carried up as far as the *horizontal sideways* position, four to six times.

3. The exercise named *the cloak*; when the dumb bells are being swung back, rise on the toes, six to eight times.

4. Draw up the dumb bells as far as the arm-pit, and then carry them downwards to the *hanging down* position. As they are drawn up, the legs take the *sinking bend* position; and as the dumb bells are brought down, the exerciser takes the *straight stretch* position. Eight to ten times.

5. From the position designated in *Fig. 18*, carry the dumb bells through the *bow swinging* exercise, (*Fig. 18, D, B.*) This is to be done six or eight times, and connected with the straightening of the upper part of the body, and also with putting down the dumb bells as described in Chapter IV, B, 5.

6. In 3-3 time: From the *hanging down* position, raise the dumb bells to the *horizontal sideways* position, as in *Fig. 3*. Carry them to the *horizontal forward* position, (*Fig. 4,*) and return them to the *hanging down* position. Six or eight times.

7. Time, 4-4. From the *locked* position with the arms as in *Fig. 12*, move into the *apart* position, and accompany the movement with carrying the dumb bells in the *horizontal sideways* direction. Return to the

locked position, drawing back the dumb bells, from four to six times. Repeat this exercise in 3-3 time, with a spring into the *locked* position, four to six times.

8. *Sinking bend* of the leg, as described in Chapter IV, A, 5, A. At the same time the arms are raised to the *horizontal sideways* position, (Chapter III, A, 1.) Three to four times.

N. B.—Finish this series of exercise by commencing with number *eight*, and returning to number *one*, executing each exercise *once* only.

B.

A Lesson for those who are Somewhat Advanced.

1. Charging of the dumb bells *up* and *down*, Chapter III, B, 3. Eight to ten times.

2. The *thrust strike*; in such a manner that the spring into the *apart* position occurs with the swinging up of the dumb bells; and the spring into the *locked* position occurs with the downward swing of the dumb bells. Four to six times.

3. *Each arm* and *both arms*, in alternation, are bent to the various angles, illustrated in *Fig. 5, C, D, E*. Three or four times.

4. *Forward step*; walk with falling out position, 3-3 time, Chapter IV, A, 1, and arm thrusting, six times to the left and six times to the right.

5. *Double leap*; Chapter A, 3, united with stretching out the arms in the *oblique sideways* position. Four to six times.

6. The *transfer* of dumb bells, (*Fig. 17.*) Ten to twelve times.

7. *Leg beat*, towards the hand, (*Fig. 11, F.*) Six times to the left and six times to the right.

8. *Thrust throw*, with sally, (*Fig. 14.*) Six to eight times.

N. B.—Same as the previous N. B.

C.

A Lesson for Pupils still more Advanced.

1. *Shoulder trial*, united with the sally: *falling out* position, Chapter IV, A, 8. Eight to ten times.

2. *Sinking bend*; (*Fig. 13*;) more especially upon one leg, united with the *thrusting out* of the dumb bells. Three to four times.

3. *Wood Sawyer*. Eight to ten times.

4. *Knee spring*, with horizontal position of the arms. Four to six times.

5. *Bow mill*, (*Fig. 16, 5.*) Three times from left to right and three times from right to left.

6. The last exercise, Chapter IV, A, 4. Transition into the *apart* position, enlarging it; springing back each time into the *locked* position, united with lifting up and down the dumb bells with outstretched arms. Four to six times.

7. *Lower arm circling* with raised elbows, (*Fig. 8.*) swinging six times from forward to backward and six times the other way.

8. *Rocking leap*; with arm thrusting to left and right. Six to eight times.

N. B.—As before.

Every one is enabled, through the simple indications given in Chapter III and IV of our dumb bell instructor, to select that which is best adapted to his wants and that which he enjoys most. With his own ingenuity he can arrange such a series of exercises as will prove invigorating.

FREE GYMNASTICS.

The word "*free*," is used in this connection as indicating those exercises in which no apparatus is employed. They are profitable and happily adapted to the school room; but some object in the hand will add greatly to the *interest* and profit of gymnastic training.

The teacher may invent a new series occasionally to keep up the interest. Since I began to teach gymnastics I have invented and used an immense number of free gymnastics.

The following, devised by the distinguished SCHREBER, are given as samples, by way of suggestion.

These exercises should all be performed to music.

In devising new exercises, it is necessary to keep in mind one or two points. First, the exercises should tend directly to force the shoulders backward, and open the chest. Second, the neck, sides and back should have varied and vigorous training.

Rolling Head Movement, (Fig. 1.)

Five times from right to left, and five times from left to right.

Sidewise Head Movement, (Fig. 2.)

Five times each way.

These two movements are good to strengthen the muscles of the neck, and are remedial in a case of ver-



Figure 1.



Figure 2.



Figure 3.

tigo. When first using these, the motions must be very slow.



Figure 4.

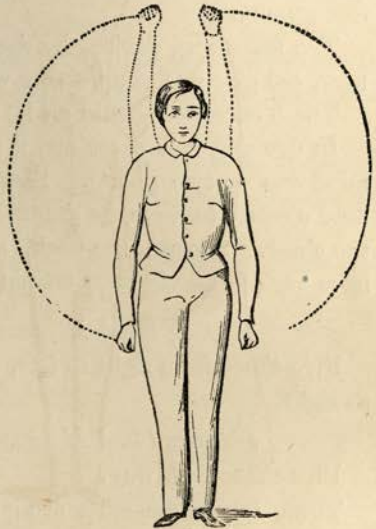


Figure 5.

Shoulder Lifting, (Fig. 3.)

First raise the right shoulder as high as possible, then the left, alternately and simultaneously, each ten times, keeping heels together and shoulders back. I would add here that the shoulders and heels must be kept in these positions in all the exercises, where it is possible.

Sinking and Raising the body, (Fig. 4.)

Sink down till you touch the heels, and then rise to your utmost height twenty times. Most capital exercise; especially in dyspepsia and constipation.

Raising the Arms Sidewise, (Fig. 5.)

The arms are to be carried from the sides to the perpendicular position over the shoulders and down again, twenty times. In this and all the other exercises the

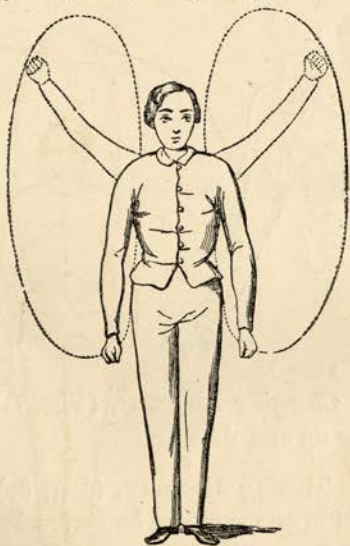


Figure 6.

teacher must be very particular in regard to the posi-

tion of his pupils—*heels together, shoulders drawn far back.*

Circular Arm Movement, (Fig. 6.)

Right hand held perpendicularly over the shoulder, dashes *forward*, and is whirled round and round, coming to rest by the side. Left arm the same. Alternately and simultaneously the same, each ten times. Again raise the right arm, dash it *backward*, and whirl it round and round. Left arm the same. Alternately and simultaneously the same, each ten times.

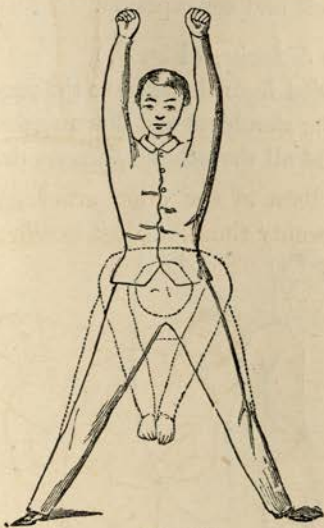


Figure 7.



Figure 8.

Chopping Movement, (Fig. 7.)

Ten times up and down.

Trotting Movement, (Fig. 8.)

Stand still in one spot and hop a few inches from the floor on one foot. Then the other foot. Alternately and simultaneously, each twenty times.

Sawing Movement, (Fig. 9.)

Thrust each hand forward and downward, at the

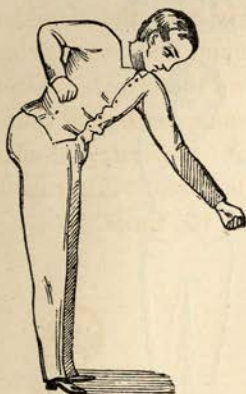


Figure 9.



Figure 10.

same time drawing the elbow of the other arm backward as far as possible, twenty times. Most excellent exercise.



Figure 11.



Figure 12.

Bending the Body Forward and Backward, (Fig. 10.)

Move the body very slowly each way, ten times.

Sideward Movement of the Body, (Fig. 11.)

Move from side to side slowly, ten times.



Figure 13.

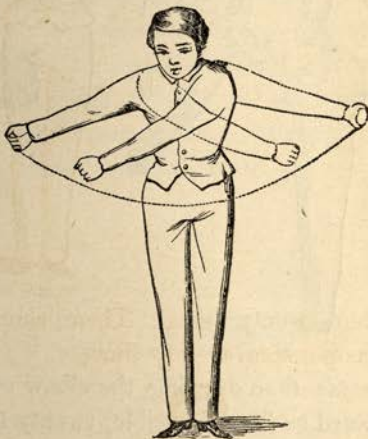


Figure 14.

Twisting of the Body, (Fig. 12.)

Twist the body each way, ten times. Splendid for bad livers, and very bad for tight dresses.

Raising the Knee, (Fig. 13.)

Raise each knee as high as you can, ten times.

Swinging Arms Sidewise, (Fig. 14.)

Swing each way twenty times, as hard as you can, without moving the feet.

Swinging the Arms Apart, (Fig. 15.)

With force backward, twenty times.

Swinging the Leg Sidewise, (Fig. 16.)

Both ways, as far as possible, in front of the other



Figure 15.

leg, twenty times. Then behind the other leg, as far as possible, twenty times.



Figure 16.

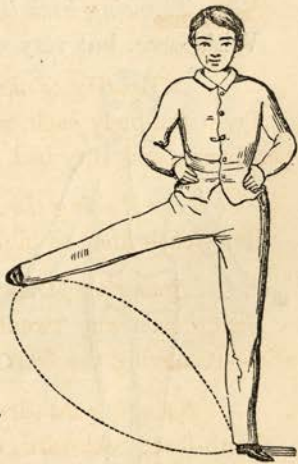


Figure 17.

Circular Movement of the Leg, (Fig. 17.)

Each leg in both directions, twenty times.

Stretching the Arms Downward, Behind, (Fig. 18.)
With force, but slowly, twenty times.



Figure 18.



Figure 19.

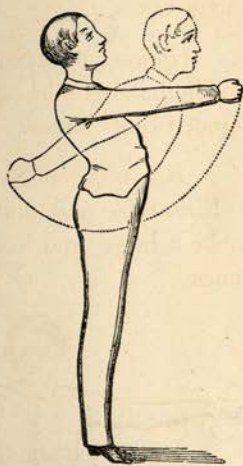


Figure 20.

Throwing back the Elbows, (Fig. 19.)
With force, but very slowly, ten times.



Figure 21.



Figure 22.

Swinging the Arms Backward and Forward, (Fig. 20.)

In precisely the manner represented, swing the arms thirty times.

Opening and Shutting the Hands, (Fig. 21.)

The hands to be opened and shut as indicated, with force, twenty times.

Bending and Stretching the Foot, (Fig. 22.)

First raise and depress the toe, ten times. Then make a large and complete circle with the toe, ten times.



Figure 23.



Figure 24.

Fig. Eight Movement of the Hands, (Fig. 23.)

Move the hands, closed as represented, describing the figure (∞) horizontally.

Twisting the Legs, (Fig. 24.)

Holding the ankle stiff, twist the whole leg so that the toe moves from right to left as far as possible, ten times.

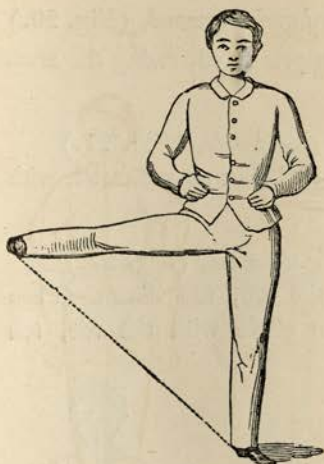


Figure 25.



Figure 26.

Sideward Movement of the Leg, (Fig. 25.)

Each foot fifteen times.

Bending and Stretching the Leg Behind, (Fig. 26.)

Each leg twenty times.



Figure 27.

Legs Out and Back Sidewise, (Fig. 27.)
With spirit and force, twenty times.

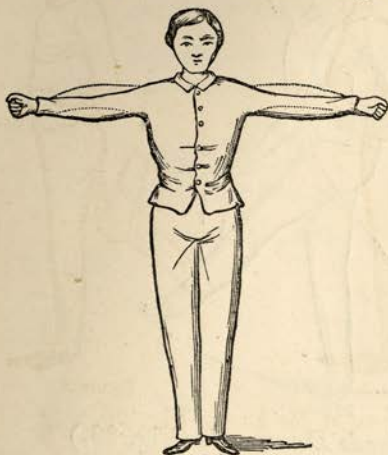


Figure 28.



Figure 29.

Twisting the Arms, (Fig. 28.)

Holding the hands horizontal, twist the arms backward and forward, ten times each way.



Figure 30.

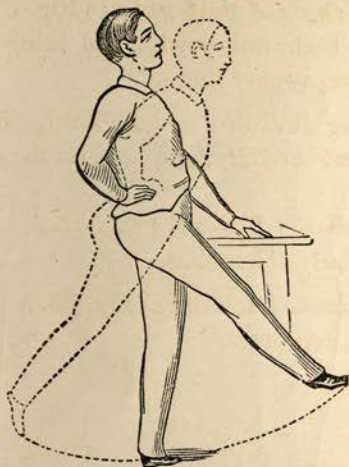


Figure 31.

Striking the Hands Downward, (Fig. 29.)
Twenty times with great force.



Figure 32.



Figure 33.

Swinging the Arms together, (Fig. 30.)

Carry them backward slowly, and bring them forward with force, twenty times.

Swing the Leg Backward and Forward, (Fig. 31.)

Study the cut carefully, and perform the movement, ten times.

Hands Upward, (Fig. 32.)

Perpendicularly thirty times.

Hands Backward, (Fig. 33.)

With force, ten times.



Figure 31.

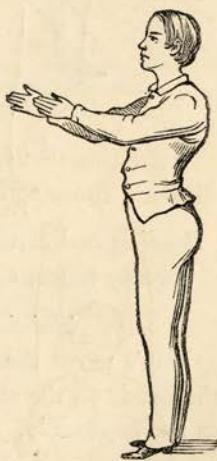


Figure 35.

Hands alternately Forward, (Fig. 34.)

Each hand with great energy, twenty-five times.

Rubbing the Hands together without Bending the Elbows, (Fig. 35.)

If the hands are drawn completely by each other, it will be found a most capital exercise for the shoulders. Indeed, but few persons can perform the feat at all, at first.

Count only the right hand and draw it backward, thirty times.

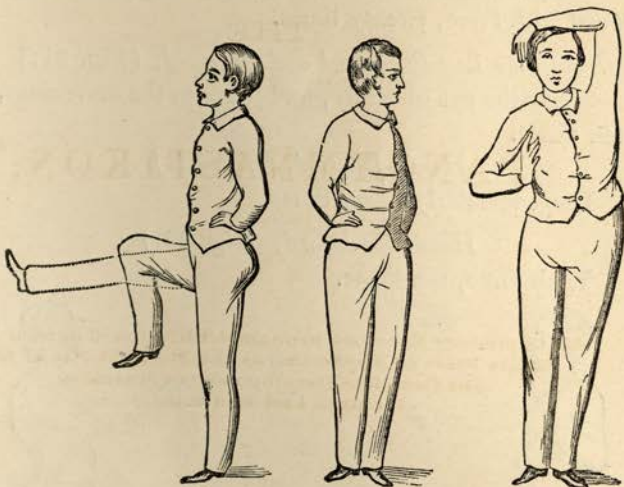


Figure 33.

Figure 37.

Figure 38.

Bending and Stretching the Leg Forward, (Fig. 36.)
Twenty times, as indicated in the cut.

Twisting the Body, [Fig. 37.]

Don't move the feet, and twist the body, holding the hands on the sides, and keeping the shoulders back as far as possible, *fifty times*, quite slow.

Deep Breathing with Body Bent Sidewise, [Fig. 38.]

Bend the body sidewise as far as possible, with the hands in the position seen in the cut, and take five deep breaths. Of course in all these exercises both sides are to receive the same treatment.

THE
PANGYMNASTIKON;

OR,

All Gymnastic Exercises brought within the Compass of a
Single Piece of Apparatus, as the Simplest Means for
the Complete Development of Muscular
Strength and Endurance,

BY

D. G. M. SCHREBER, M. D.,
Director of the Medical Gymnastic Institution at Leipsic.

Illustrated with 107 Wood Cuts.

TRANSLATED FROM THE GERMAN BY DIO LEWIS, M. D.

Note by the Translator.—It is hardly fair to call this a translation, so much has it been condensed. But I am confident the form in which it is presented will prove more acceptable to the American mind, than would a faithful, full translation of the elaborate original. It should be mentioned that not only have considerable chapters been omitted, but some additions have been made; all of which is most respectfully submitted.

FORTHCOMING MOVEMENT CURE WORKS.

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INTRODUCTION.

We welcome German gymnastics as an earnest of a revival of the ancient, German, national spirit. During the long centuries of the dark ages, the Germanic soul struggled with ignorance and superstition; culminating at length in the "Thirty Year's War," during which, four-fifths of the German people were destroyed, and numberless towns utterly annihilated. At last, the worst of all possible results befel the German nation, in the suffocation of its national life. Until the year 1618, the German national spirit still existed, though restrained in its manifestations. There was a noble consciousness of physical and spiritual strength. This consciousness had been preserved through the military habits of the people.

Arms were kept in every house. Target shooting was universal. Women and children became comrades in arms. Physical vigor was an object of general emulation. Every house in town and country had its bath-room; organized and incorporated bodies superintended the bath. They were known as the "Society of Bathers." Numberless sports were introduced, and received the patronage of the government. The present English habits are to some extent a reflection of the German life during the period of which we

speak. Of all these beautiful blossoms of the German national life, none survived that dreadful war. During a long reign of terror, this noble people was overwhelmed by hordes of foreign tyrants, who reduced the German nation to a shrivelled, timid, narrow-minded people, smirking and bowing down to foreigners. A long, long time elapsed ere a few small flames began to kindle in the mass of smouldering ruins, in whose depths the national spirit of olden time had yet continued to glimmer and glow. Two centuries passed, before the regeneration of the German national life could commence. All praise to God, the present generation has crossed the threshold of the new era. The new creation received its noblest impulse through the priceless labors of Gutsmuths, Jahn, Eiselen, Spiess and their fellow workers, who inaugurated the present gymnastic revolution.

Gymnastics are therefore not a mere passing thing of fashion, but a renovated, enobled instinct or germ, from the old, yet vigorous root of the ancient German national life.

Man may indulge lofty conceptions and aspirations, but without physical vigor he must ever prove a very imperfect being—a tree which bears forced blossoms and dwarfed fruit. What is true of the individual is true of a nation.

What the primary school has accomplished for the intellectual life of the nation, the gymnasium is achieving for its physical life. The primitive and aimless field sports no longer suffice. The intellectual life of the nation having reached a higher plane, system and science are demanded for its physical development. Besides, the demands made by a higher mental culture

are so manifold and absorbing, as not to allow sufficient time for the primitive exercises which belong to field-sports.

THE PANGYMNASTIKON.

In this work, it is my purpose to present the claims and elaborate the uses of the *Pangymnastikon*, so called because it possesses the advantages of all other gymnastic apparatus. I would not underrate the value of other apparatus and modes of exercise. Holding the position of president of one of the oldest and most advanced gymnastic clubs in Germany, and deeply impressed with the importance of constant variety and change in apparatus and exercises, I offer the *Pangymnastikon*, not as a full response to the public demand, but as the most complete "multum in parvo" in the gymnastic field, and as most admirably adapted to the wants of those who cannot avail themselves of the advantages of a gymnastic institution. To all such it is a God-send.

SPECIAL CLAIMS OF THE PANGYMNASTIKON.

It is comparatively easy to devise gymnastic exercises which shall interest a social class, enlivened by music. But what shall those do, who, finding it inconvenient or disagreeable to visit the gymnasium, would cultivate muscle and vigor at home? In the absence of social stimulus and music, the exercises themselves must possess peculiar fascination. If, in addition, they bring every part of the body into varied action, giving the left arm, shoulder—the entire left half of the body as much and as varied exercise as the right, we should have the model home gymnastics.

The *Pangymnastikon* meets these indications more

successfully than any other apparatus yet devised. While the first exercises of the first series are simple enough for children, the last exercises of the last series are beyond the reach of all except those who have a favorable composition, and are very much in earnest. For clergymen, ladies and many others, who would carry on the work at home, this invention is the most complete means imaginable.

DESCRIPTION OF THE PANGYMNASTIKON.

Two large hand rings suspended from the ceiling by ropes, which, running through padded hooks, are carried to the walls. Two other ropes extend from the walls directly to the hand rings. A strap with a stirrup is placed in either hand ring. By a simple arrangement on the wall, the hand-rings are drawn as high as the performer can reach, or let down within a foot of the floor; or at any altitude they can be drawn apart to any distance. The distance between the stirrups and rings can be likewise varied. The usefulness of the Pangymnastikon depends upon the facility with which these changes can be made. The rings must be raised, let down, drawn apart, the stirrup straps changed, or removed altogether from the rings, each and all with a single motion of the hand, and in a moment. There are various simple mechanical contrivances by which these multifarious changes can be made. An ingenious mechanic can scarcely be at fault. I will suggest that in splicing the ropes into the rings, the splice should be long and drawn close; else giving way, an unpleasant surprise may occur. The ropes should run through strong, padded hooks at the ceiling, which are fastened on the upper side of the timber with thick nuts. The fastenings on the wall must be made secure.

The ropes with which the rings are separated, should be armed with wrought-iron snap-hooks, which can be caught into wrought-iron rings, which have been firmly lashed into the suspension rope, at the point where it connects with the hand ring. The stirrup straps must be of very strong white leather, with edges so rounded that the pants will not be worn. In shortening the straps, a buckle should not be used, for, in removing the straps from the hand rings, much time would thereby be lost ; nor should a simple hook be employed, as the leather is liable to give way, and the hook to slip out. A brass H, with one side sewed into the end of the strap doubled, and the other slipped through slits in the body of the strap, is a perfect thing. With this simple contrivance, the strap can be altered or taken out altogether in a second, and can never give way. The stirrups should be very strong, with serrated bottoms, and fastened into the ends of the straps with strong sewing and copper rivets.

The Pangymnastikon cannot be put up in an ordinary gymnasium ; the ceiling is too high. The best height for the ceiling hooks is twelve feet ; a ceiling as low as eight feet will do. The apparatus can be used, however, in a gymnasium, or in an open yard, by the erection of a simple frame work. If suspended in an ordinary gymnasium, from a ceiling eighteen or twenty feet high, a large number of the most valuable exercises cannot be performed advantageously.*

* If the mechanic has difficulty in understanding the processes of manufacturing the article, he may obtain full explanations by addressing Dr. Dio LEWIS, Box 12, Boston, Mass., whose manufacturer will send full particulars. Persons who would prefer to obtain the Pangymnastikon at the factory in Boston, can address Dr. Lewis, who has them so made that they will not give out at any point, even after being used for years in the roughest manner and by the heaviest men. Made thus, handsomely finished, and boxed ready for shipment, the cost is \$7, which is very cheap. Directions for putting it up in any room, even a parlor, without marring the ceiling or wall, will be sent with the apparatus. It can be easily removed out of the way in a moment when not wanted.

USES AND VALUE OF THE PANGYMNASTIKON.

Upon a close examination of the Pangymnastic exercises, the conviction will be forced upon all, that by no other means can such a variety of valuable exercises be reached.

A vain boasting over muscular strength is vulgar. I regard with disfavor the cultivation of mere strength, without a noble carriage, freedom, security, agility and grace. Still less do I approve of a mere display of feats. But what thoughtful person can reflect upon the objects of human life, without seeing that not only is the highest development of the muscular system a great advantage to those who follow mechanical occupations, but of vital importance likewise to those who fill the ranks of intellectual life, and who require as a condition of success, good health and strong vitality. Only a *whole* man is capacitated to perform in the best manner the tasks of life. Is it not an aim worthy our highest efforts to develope our whole being to its fullest capacity? To carry forward to full fruition those germs, which, like the slumbering buds of a plant, exist within us, awaiting the period of their development and ripening. That which man is in himself, that which he possesses in his own person—his intellectual and physical capabilities, constitute his only permanent, reliable capital! If then a method is opened for the development of his physical strength, not at the cost, but to the advantage of his intellectual powers, would he not prove himself a simpleton if he refused to follow such a path?

The anatomist, in examining the exercises here introduced, will not fail to discover that each and every set of muscles has received studied attention, while at the

same time the general development of *the MAN* has been kept in view.

This universal development is especially provided for in the Pangymnastikon by the union of the stirrups with the rings, from which results an infinite combination and variety of exercises. The main value of the Pangymnastikon rests upon this union of the stirrups with the rings. I believe the gymnasium receives in this apparatus a larger circumference than is offered by all other gymnastic utensils combined.

The muscles of the lower part of the body, and the nape of the neck, are more thoroughly trained than by any other means. The extensor muscles of the fingers, hands, arms and legs, which are never brought into vigorous play with other gymnastic apparatus, enjoy, in the use of this apparatus, full play. The rotatory and diagonal movements of the muscles, which are particularly effective in the production of symmetry, figure prominently.

Pangymnastic exercises derive great advantage from the fact that the points of support as well as the points of grasp are moveable, whilst ordinarily these points are fixed. The advantage of the Pangymnastikon is, that these points are fixed through a varied action of the muscles. This compels an almost infinite multiplication of the direction and manner of muscular exertion.

The Pangymnastikon, as I am convinced by a wide experience, possesses strong attractions to lovers of gymnastic exercises, on account of this great variety, and the graduated difficulties to be overcome. It will everywhere prove a source of unlimited interest in private houses.

Nothing could be more admirably adapted to ships,

where invigorating exercises are greatly needed to preserve health and to prevent sea sickness.

The Pangymnastikon is therefore to become the means of an unlimited generalization of the gymnasium.

The pupil must observe the gradual method of advancing. Beginning with the most simple, and at last reaching the most difficult. He must proceed from exercise to exercise, from degree to degree, from series to series.



FIRST SERIES.

Fig. 1. SHOULDER SWING, forward and backward, four, six, or eight times.

Rings at the height of the head. The swing motion

is obtained by springing from the floor, and a continued effort of the legs.

Fig. 2. ELBOW SWING, forward and backward, four, six, or eight times.

Rings high enough for the body to hang straight, the body being supported by the elbows. Swing the same as in *Fig. 1*.

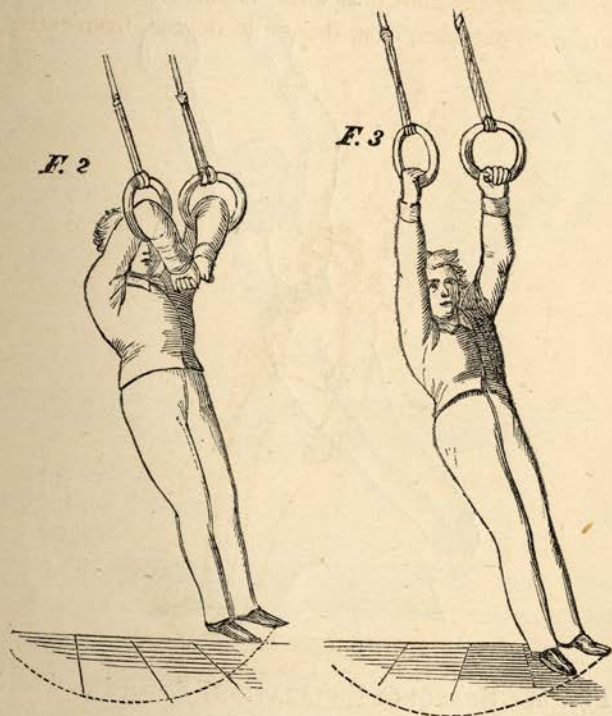


Fig. 3. HAND SWING, forward and backward, four, eight, or twelve times.

Rings so high that the feet will not touch in swinging; with the arms straight.

Fig. 4. HAND SWING SIDEWISE, four, eight, or twelve times.

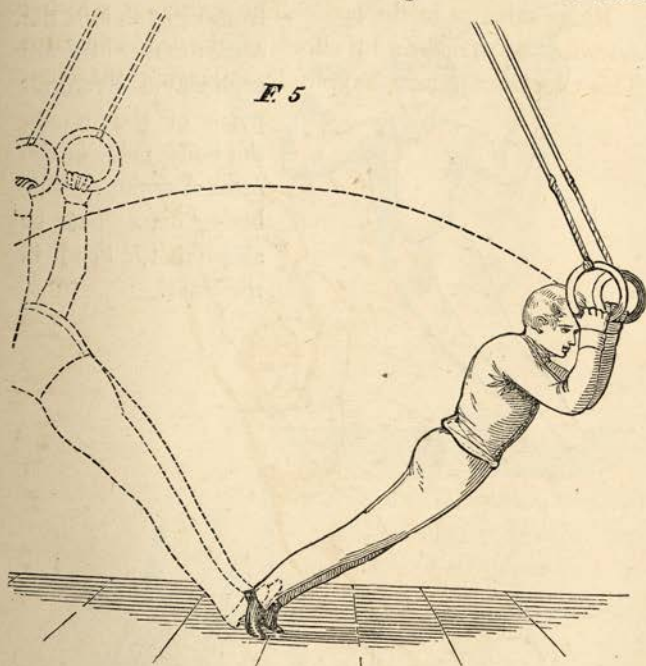
Rings same as in the last. The swinging which is sidewise, is carried on by efforts of the legs and arms. This exercise operates happily by enlarging the chest.



Fig. 5. STANDING INCLINATION, forward and backward, two, four, or eight times.

Rings as high as the chest. Seize the rings as shown in the cut. The feet remain at one place, simply turning on the toes as the person falls forward, and on the heels as he falls backward. In falling forward it is

well, for beginners especially, to keep the arms in the attitude seen in the cut. The legs must not be bent.



F. 5

Fig. 6. STANDING INCLINATION SIDEWISE, two, four, or eight times.

Rings and grasp the same as in the last. The inclination of the body is exactly to the right and left alternately. The arms remain in the position shown. The body remains inflexible.

Fig. 7. TUNNEL CIRCLING, with Shoulder Support, four, eight, or twelve times.

Rings a hand's breadth below the height of the shoulder. Arms put through the rings; feet do not leave their position. The exercise consists in circling



the body around, from left to right and from right to left, the same number of times each way. From all parts of the circle, the body faces in the same direction. The body must not be allowed to bend in the least.

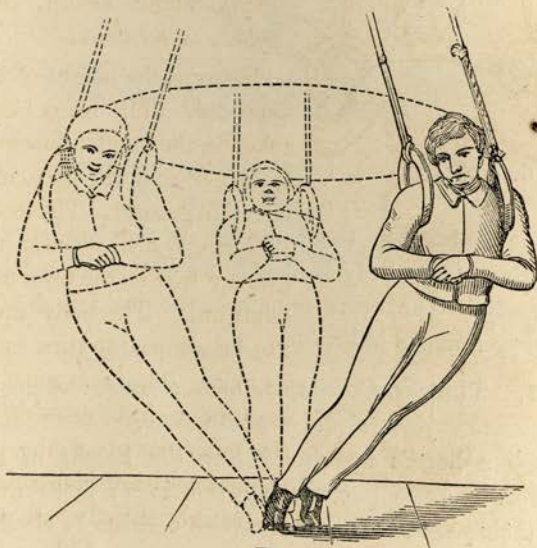
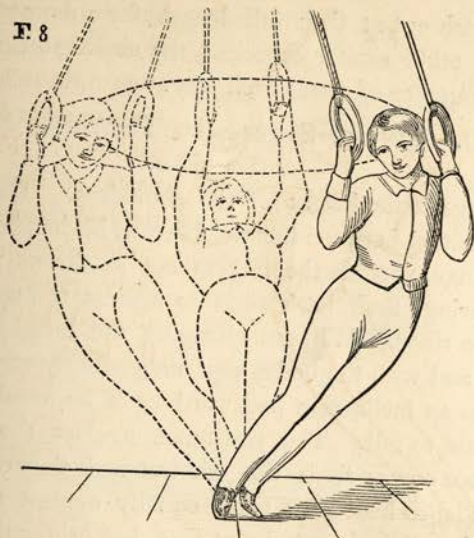


Figure 7.

F. 8



*Fig. 8. TUNNEL CIRCLING
with Hand Grasp, two,
four, or six times.*



Figure 9.

Rings at the height of the shoulder. The rings being taken in the hands, the circle is larger and the muscular exertion greater. The lower the rings are placed, the greater will be the muscular exertion. The body must not be allowed to turn upon its axis. The arms must be kept bent just as seen in the cut, except at the extreme backward inclination, where they may be allowed

to stretch out at their full length for a moment. As in all other similar exercises, the circling must be the same number of times each way.

Fig. 9. FINGER STRETCHED POSITION, one, two, or three times.

Rings at the height of the shoulders. One takes his position between them. He puts his hands through the rings, spreads the fingers out as far as possible, and brings their back surfaces against the upper part of the rings. Without changing the location of the feet, and with the body kept unbendingly straight, he makes an inclination backward as if he would permit himself to fall. The resistance against the loss of balance comes from the outstretched fingers, which must be so held as to press equally against the ring. This is a difficult exercise at first, but brings the extensors of the fingers into action as nothing else will.

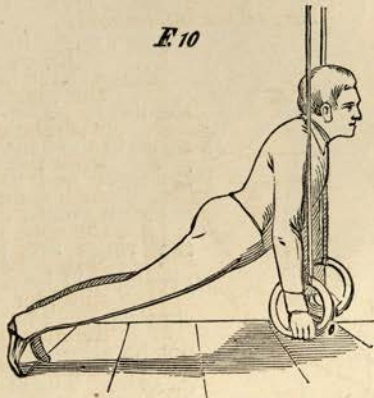


Fig. 10. CHEST STRETCHED POSITION, during two, four, or six inhalations.

Rings one foot from the floor. Grasp from the outside as shown in the cut, arms exactly perpendicular.

Legs straight, supported on the points of the toes. The rope must touch the shoulder. One hand can be lifted, and the weight of the body supported by one hand, though this exercise belongs to the second series.

F 11

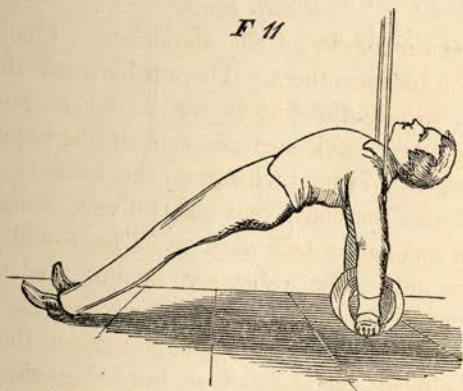
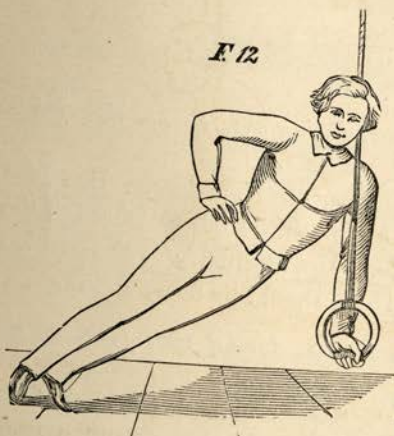


Fig. 11. BACK STRETCHED POSITION, *during two, four, or six inhalations.*

F 12



Rings same as in the last. Grasp with the spoke grasp from the outside, in such a manner that the rope is brought close behind the shoulder joint, and the shoulders braced against the rope. The ropes perpendicular, while the body is kept rigid,

with the chest arched upward.

Fig. 12. SIDE STRETCH POSITION, during two, four, or six inhalations.

Ring still one foot from the floor. The hand seizes the ring on the outside with the spoke grasp, the rope touching the front of the shoulder. Arm exactly perpendicular. Body otherwise just as represented.



Fig. 13. ARM HANG, during one, two, or three inhalations.

Rings a little higher than the shoulders. Bend the forearm on the arm, and push the elbows through the ring as far as possible. Hold the body in the position shown in the cut. There should be no swinging.

Fig. 14. SUPPORT HANG, during two, four, or six inhalations.

Rings as high as the breast. Hands take hold from the outside with the support grasp. With a little spring the body can be lifted into the position seen in



the cut. Beginners, with but little muscle, had better hang the rings no higher than the abdomen. Back straight and rigid. Chest arched forward. Feet locked. Body held still.

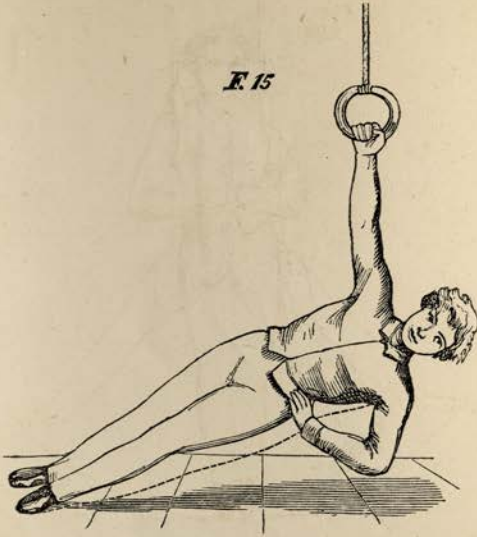
Fig. 15. SIDE HANGING, with bending of the Hips, two, four, or six times.

Height of the ring and position of the two arms, the feet and the hips are well shown. The hips are drawn upward and allowed to fall, as suggested in the dotted line.

Fig. 16. PERPENDICULAR FOOT BENDING AND STRETCHING, from the Shoulder Hang, eight, twelve, or sixteen times.

Rings as high as the head. Place the arms firmly in position and hold the body still. Toes are stretched

F. 15



F. 16



down as near the floor as possible, *F. 17.* and drawn up near the ankle.

Fig. 17. LEG TWISTING, from the shoulder hang, eight, twelve, or sixteen times.

Position same as in the last. Turn the toes slowly and vigorously outward and inward.



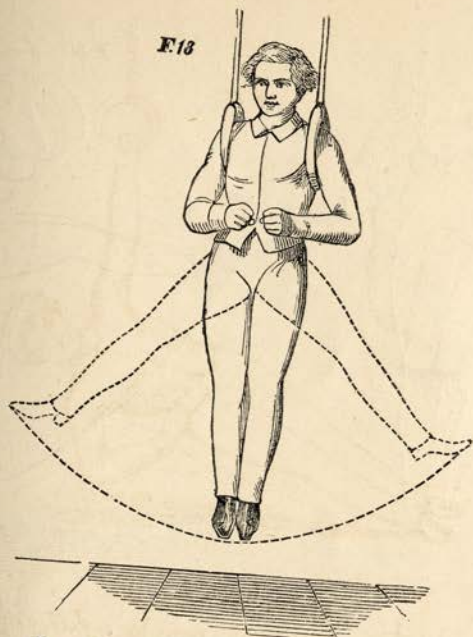


Fig. 18. LEG SPREADING, from the Shoulder Hang.

Position same as the last two exercises. The legs are thrown out exactly sidewise and with great vigor. The position of the feet when in contact and when separated is well shown.

Fig. 19. KNEE LIFTING, from the Shoulder Hang.

Rings in the same position. In this and the following three exercises, the hands seize the ropes close above the rings. By this means, a more concentrated exercise upon the corresponding muscles of the legs is secured. The knees are drawn up as high as possible. Those who are muscular and flexible, can carry the knees as high as the chest.

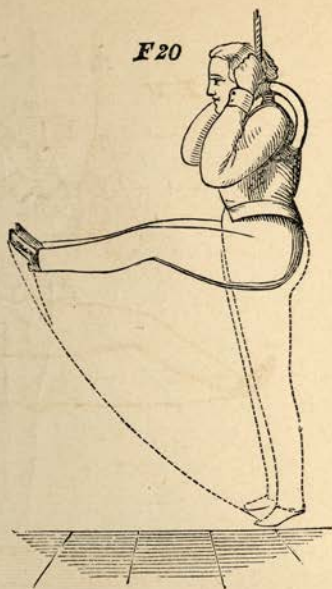
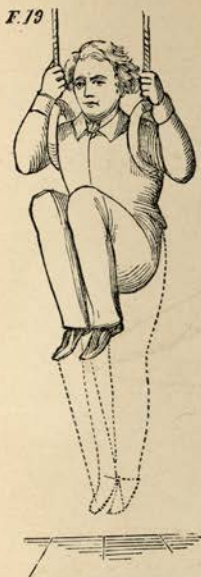


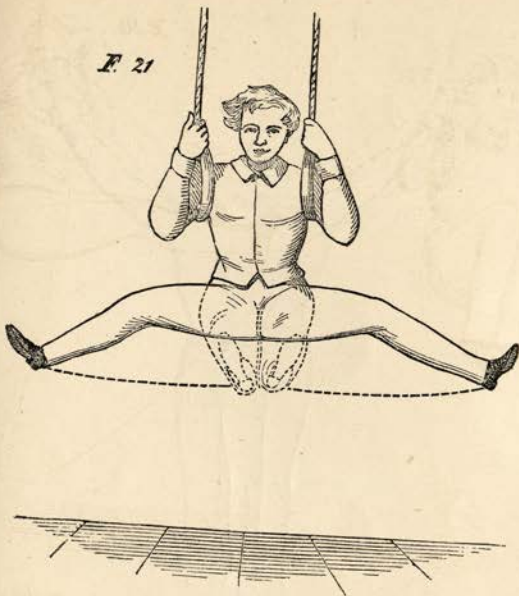
Fig. 20. HORIZONTAL LEG RAISING, from the Shoulder Hang, two, four, or six times.

Rings, hands and body in the same position as in *Fig. 19*. The legs are kept perfectly straight, and they are raised as shown in the figure where they are held for a moment.

Fig. 21. HORIZONTAL LEG SPREADING, from the Shoulder Hang.

The body and hands continue in the same position, except that here and in the next exercise the rings may be placed a little lower, perhaps as high as the shoulder. The legs are raised exactly as in the last, and being thus held they are carried apart as in the cut. Do not fail to keep the legs straight.

F. 21



F. 22



Fig. 22. KNEE EXERCISE, from Horizontal position, two, three, or four times.

Same position of the body and hands as in the last. Legs as in *Fig. 20*. Then they are bent at the knee to an acute angle and back again.

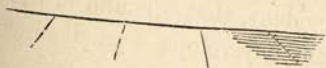




Fig. 23. SUSPENSION from Spread Arms, six, eight, or ten inhalations.

Rings sidewise, high enough to suspend the body from them. Head erect; back straight; legs straight and close together; feet at right angles.

Fig. 24. STIRRUP CROSSING, four, six, eight times.

Rings as high as the hips. Support grasp from the inside. Legs cross each other, so that each alternates before and behind the other. Hold the rings so that they will not partake of the movement. Count as one in this and similar exercises, the movements of both legs. It will be self evident, that to stand in the stirrups without movement, develops varied muscular



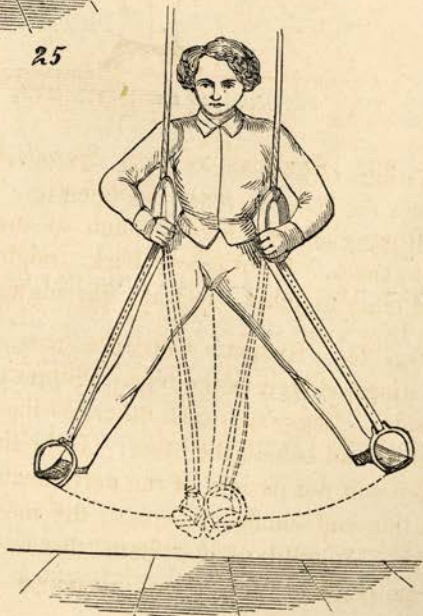
F.24

25

action in the legs and feet.
 It will be observed that the toes only, rest upon the stirrups. For obvious reasons the feet should not be pushed through to the heels.

Fig. 25. STIRRUP SPREADING, two, four, or six times.

Rings as high as the waist. Support grasp from the outside. Move the legs side-wise rapidly. Keep the rings in their place.



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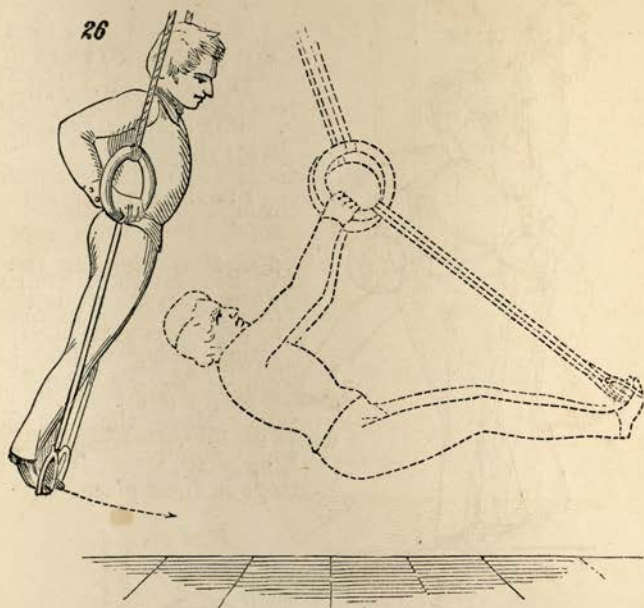


Fig. 26. SWINGING IN STIRRUPS, four, eight, or twelve times.

Rings as high as the waist or chest. Support grasp from the inside. Swing as upon any ordinary swing, when standing.

Fig. 27. SUSPENDED RUNNING IN THE STIRRUPS.

Rings and stirrups as in *Fig. 26*. Make the same motions of the legs as in running. As the legs pass each other they should be close together.

Fig. 28. STIRRUP STANDING INCLINATION, in the Elbow Hang, four, six, or eight times.

Standing in the stirrups, the rings are placed as high as the shoulder. Arms as seen in the cut. The body is thrown vigorously forward and backward.

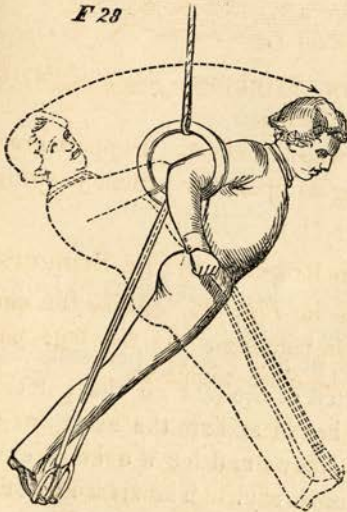


Fig. 29. SITTING
DOWN IN THE STIR-
RUPS, two, four, or
six times.

Standing in the stirrups, the rings are placed as high as the waist. Now sit down so as to touch the heels. In rising, use the legs alone, simply employing the arms to steady the body.



F 28



F. 29



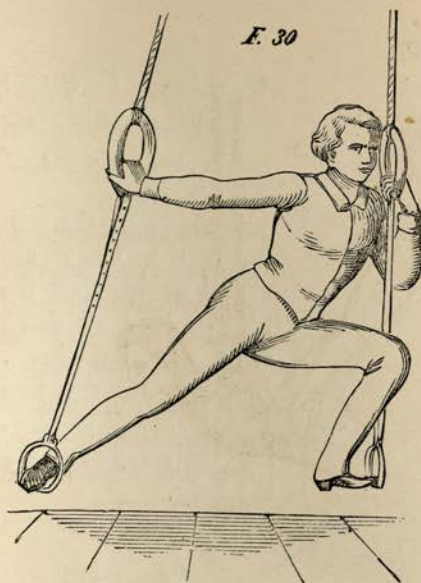


Fig. 30. KNEE CHARGING IN THE STIRRUPS, four, six, or eight times.

Standing in the stirrups, the rings are placed as high as the chest. Charge out on either side just as represented in the cut. Make the stride as great as possible.

SECOND SERIES.

Fig. 31. CHEST EXPANDING, WITH LETTING DOWN, two, four, or six times.

Rings at the lowest point. Arms perpendicular. Body straight; supported at the feet on the points of the toes, and with the hands seizing the rings as seen in the cut. Bend the elbows and let the body down slowly. Raise it again slowly. The arms do nearly all the labor.

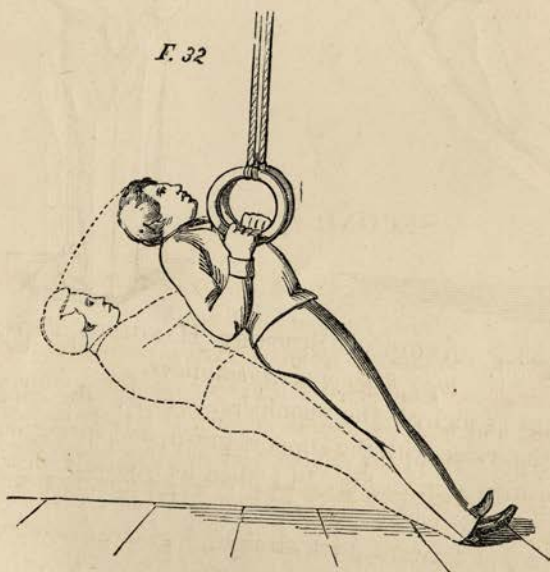
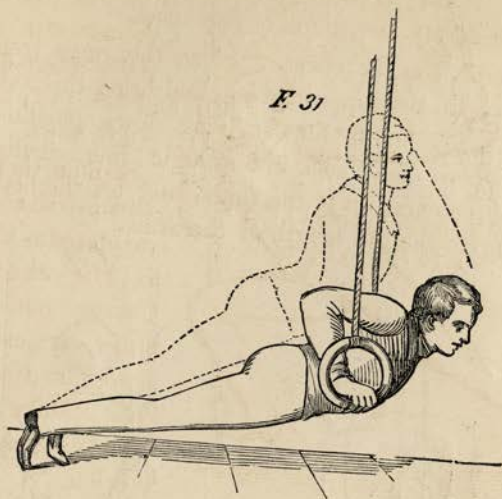
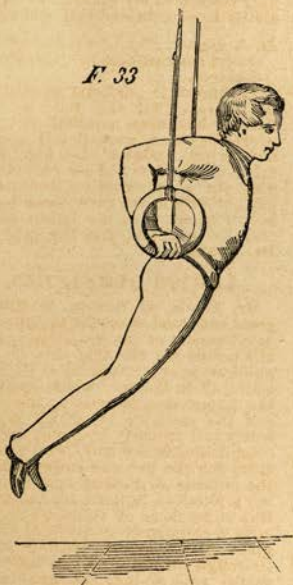


Fig. 32. HALF LYING, WITH LIFTING BY THE ARMS, *two, three, or four times.*

Rings as high as the chest. Seize the rings from the outside with the support grasp, and bring the body beneath the rings in an almost lying down position. Keep the body and neck in a straight line rigidly. Now draw the chest up to the rings, and let the body down again to the full length of the arms.

F. 33



F. 34



Fig. 33. ANGULAR SUPPORT HANGING, *during two, four, or six inhalations.*

Rings as high as the shoulders. Seize the rings from the inside with the support grasp, and spring into the position seen in *Fig. 14*; then let yourself slowly down into the position of *Fig. 33*. Head erect, chest thrown well forward, back straight, legs close together.

COMMENDATORY NOTICES.

"Dr. Lewis has for many years been devoted to the subject of Physical Education, and his new and admirable system of Gymnastic Training has elicited the warmest expressions of approbation from those who have witnessed its beneficial results. We bespeak for his noble enterprise the liberal patronage which it so richly merits."—*Knickerbocker*.

The same Magazine says, in speaking of Lewis's Normal Institute for Physical Education:

"Success to Lewis. Gentlemen or Ladies, who would do real good in this world, as much as any doctors, and would learn a calling whose practitioners are every day in more request, should qualify themselves to become teachers at the Normal Physical Institute. No better Institution exists."

"We regard this periodical as supplying a want long felt in schools. We have never read any journal with more interest."—*Educator*, (Pa.)

"It will do more real good than any other periodical on any other subject now published in this country."—*Prof. Ridd, Cincinnati*.

"I begin already to realize that your admirable system contains the elements of a revolution."—*Ed. N. Y. Leader*.

"Dr. Lewis is just the man to edit such a journal. Multitudes will have occasion to thank him for devoting his energies to the much neglected subject of physical culture."—*Conn. Com. School Journal*.

"It is the work of the age on the subject. If it does not prove the means of revolutionizing the public mind on physical training, then we are mistaken."—*Iowa Instructor*.

"There seems to be but one opinion of this simplest of all systems of Gymnastics, and that is, that nothing has before been presented which is at all comparable with it."—*N. Y. Tribune*.

"Dr. Lewis's lecture and gymnastics at Tremont Temple gave great satisfaction to an immense audience."

"At the recent gathering of the 'American Institute of Instruction' in Tremont Temple, Dr. Lewis gave lectures and many illustrations before the Institute. In reference to these lectures and gymnastic illustrations, the *New York Times*, says,—The remark was on the lips of many, that

if no other exercise was had, they were amply repaid for coming hundreds of miles to Boston, by witnessing these illustrations and hearing Dr. Lewis's explanations. The interest in Dr. Lewis's exhibitions has been very great indeed."—*Boston Courier*.

Extract from an Address by the Rev. Dr. Kirk at the Commencement of "Lewis's Normal Institute for Physical Education."

"It was my privilege to welcome Dr. Lewis at his very first arrival here, and everything since then has only confirmed my confidence in his ability to superintend this system."

D. B. Hagar, Esq., President of 'The American Institute of Instruction' declares,

"I think it is perfectly correct for me to say, that the way so long desired has been pointed out, the course has been marked out, and to-day many eminent teachers have taken that course and are pursuing it with the most excellent results. I say not only in my own name but in behalf of many of my fellow teachers, that we recognize the debt due Dr. Lewis."

LEWIS'S GYMNASTICS.

Dr. Lewis, of Boston, is doing a great and good work for the physical development of the American people. His means for effecting this are, the publication of a "Journal of Physical Culture" in Boston, which explains the importance of training the body, and the methods by which it may safely and properly be done; and the establishment, not only of a gymnasium for the use and instruction of the citizens of Boston and vicinity, but a NORMAL SCHOOL for the education of teachers of Gymnastics, and with a competent corps of teachers, gives to pupils of both sexes a thorough education in this noble and useful art, giving, at graduation, diplomas to all pupils qualified to receive them. On the 5th day of September, 1860, the first commencement exercises took place at the Institution, on which occasion President Felton, of Harvard College, occupied the chair, and conferred the diplomas, when Dr. Lewis, Edward Quincy, Esq., Rev. Dr. Kirk, Mr. Hagar, and President Felton addressed the class and the audience. It was an occasion of great interest, and we hail with pleasure this great move in the right direction and with the right means.

—*American Phrenological Journal*.

DR. LEWIS'S NEW GYMNASIUM, No. 20 Essex St., Boston.

In this Institution, are embodied DR. LEWIS'S best conceptions of physical training for children, and for adults of both sexes. The Halls are abundantly supplied with every species of apparatus peculiar to the new system, carefully adapted to different ages and degrees of strength.

Cautious and studied training of delicate children constitutes a marked feature of the new Gymnasium. Parents, having frail little ones, are cordially invited to bring them for examination and advice.

Ladies and gentlemen exercise together, and always under the management of a drill master. There are pleasant dressing rooms for both sexes.

The exercises are accompanied with fine music, which is a characteristic feature of the new system of Physical training.

All, of both sexes and of every age, who have round shoulders or deficient chests are rapidly improved.

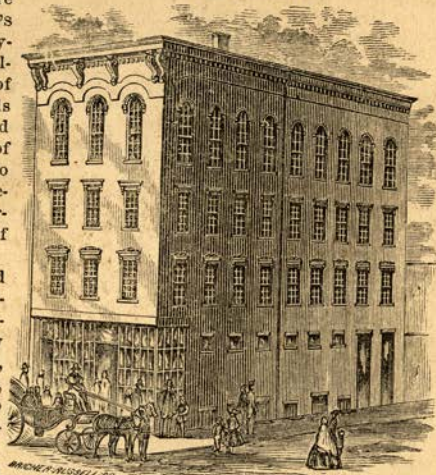
SPIROMETER AND BLOW GUN.

DR. LEWIS has given much attention to the development of the Respiratory Apparatus. Gymnastics adapted to the American people must embrace special means to this end.

The Spirometer and Blow Gun are believed to be the best means ever devised to enlarge and invigorate the lungs.

The *Water Cure World* says, "No conceivable practice will so surely keep open these air-cells, and greatly enlarge the lungs as the daily use of 'Lewis's Spirometer.'"

President FELTON of Harvard says, "I have found that my respiration is freer for the whole day, after practicing a few moments with this Spirometer."



The Spirometer is a beautiful parlor ornament.

The Blow Gun is a rich source of amusement and very happy in its influence upon the pulmonary apparatus.

Wherever these inventions are introduced they will constantly interest both old and young, and add greatly to the size and activity of their lungs.

LEWIS'S GYMNASIUM MONTHLY.

A Monthly Publication, devoted to Physical Culture, profusely illustrated with cuts of the New Gymnastics. During the year 1862 it will present a complete guide in Gymnastics, for the Gymnasium, the School and the Family.

Ventilation, Dress, Bathing, Diet and other kindred topics will be treated in a thoughtful and practical way.

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No advertisements other than those connected with the Gymnasium, will be admitted.