

A guide to the physical training of youth of both sexes.

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A GUIDE 9
TO THE
PHYSICAL TRAINING
OF
YOUTH OF BOTH SEXES;

WITH PRACTICAL INSTRUCTIONS IN
EXERCISES PROPER TO THE DEVELOPMENT OF THE HUMAN FRAME,
TO ITS PROTECTION AGAINST HABITS TENDING TO DEFORMITY,
AND TO THE ACQUIREMENT OF AN ELEGANT AND EASY DEPORTMENT.

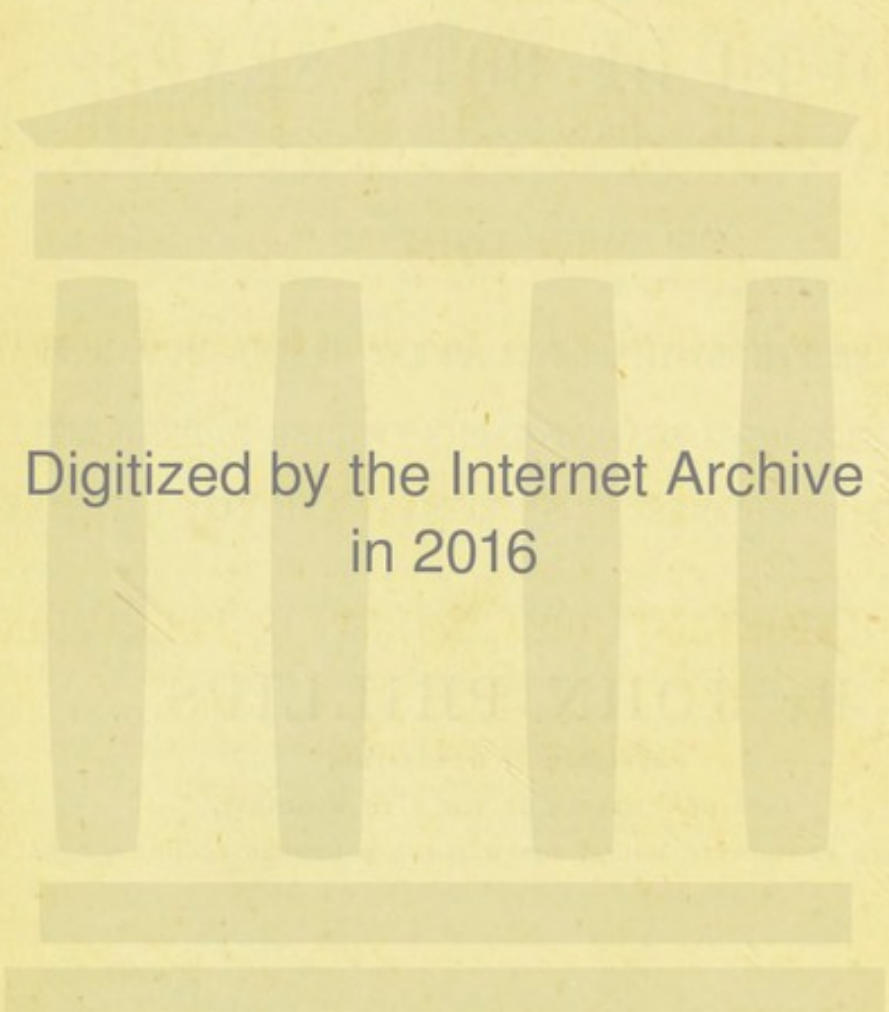
BY JOHN PHILLIPS,
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GLASGOW: DAVID ROBERTSON,

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TO

The Rev. Alex. J. D. D'Orsey,

HEAD MASTER

OF THE ENGLISH DEPARTMENT IN THE HIGH SCHOOL OF GLASGOW,

The following Brief Treatise,

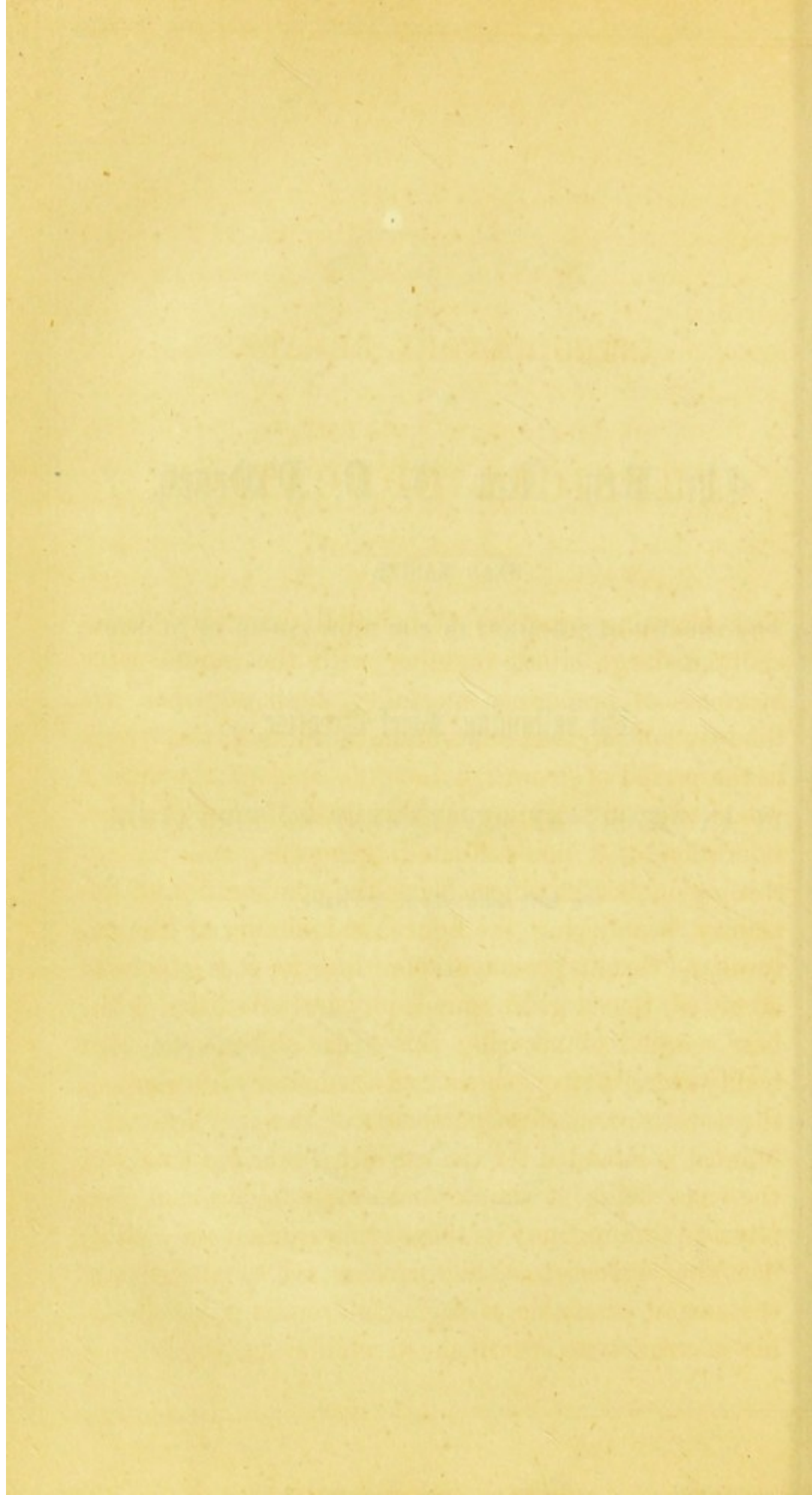
ON AN IMPORTANT DEPARTMENT OF EDUCATION,

Is, with much respect, Dedicated,

BY

The Author.





INTRODUCTORY REMARKS
ON
PHYSICAL EDUCATION.

THE alarming progress of habitual deformity, especially in large cities, together with the innumerable instances of premature mortality, both of which are the result of physical inattention to children, and youth in the period of growth, is the only apology the author would offer, in soliciting for this little Manual the consideration of a noble-minded, generous, and philanthropic public; its object being the amelioration of humanity, beautifying the figure, and aiming at the natural and certain prolongation of life: for it is generally admitted, that a good, sound, physical education is the best method of securing this great object,—for that bodily exercise strengthens, and a sedentary life weakens the constitution—few persons will deny. Now, this Manual is intended for the use of parents and teachers, the rules being so simple and easily understood, that physical training may be thoroughly carried out without incurring expense. While parents are so attentive to the mental education of their children, is it not a matter of regret to see them so indifferent about their

physical accomplishments? For as an individual is composed of two parts, each of them ought to be alternately exercised, in order to attain, at the same time, the development of the powers of the body and the mind, and that a proper balance be kept up between them. This would, without any manner of doubt, facilitate their progress in learning, preserve them in health during their scholastic probation, and also qualify them for the healthful and easy discharge of their relative avocations, many of which have a tendency to undermine the constitution, and produce premature decline. It is now beginning to be more generally known, that proper physical education fortifies the body, cures many diseases, and gives to the organs a greater aptitude to execute the movements required by our various wants; and, also, greater extension and strength to the faculties of the mind. Moreover, gymnastic exercises, combined with moral instruction, are among the improvements of the present age, and are entitled to equal consideration—the object of the one being the development of all the corporal faculties with which nature has endowed us, and that of the other, the proper cultivation of the mental powers. A masculine education furnishes its possessor with the means of self-preservation in the various occurrences incident to life, discovering, as it does, all the physical resources man possesses in himself: and, being well-skilled in their use, he is not perturbed in the moment of danger, however unforeseen or terrific it may be; being confident of his strength and address, he escapes unhurt, when persons in similar circumstances,

not having had their bodies properly developed, have fallen victims to their own incapacity; so that it may be said, without risk, many parents would have preserved their children, if they had had the precaution to give them a more vigorous education. Again, how very many of the lovely youth of both sexes are the subjects of deformity and affliction, from want of proper physical treatment in their tender age? Let any person of judgment (when walking through the streets of a city) give attention to this for an hour or so, and he will be struck with the truth of the assertion. A vast number of persons may be met with, even of more mature age, who are the subjects of the decrepitude and infirmities incident to old age. These things ought to teach parents to guard their children against contracting such injurious habits, the appearance of which bespeak great neglect, to say the least, in addition to an unfavourable exterior, which, in itself, tends to depreciate even real worth; whereas a graceful carriage and elegance of deportment prepossess in the favour of their possessor. A light and easy gait is of great advantage to persons on a journey, enabling them to endure long marches without suffering inconvenience thereby. The author of this work can recollect many instances of deliverance from imminent danger, through a kind Providence, in the use of physical expedients; when travelling by land and water, from zone to zone, in the service of his country, frequently has his health been re-established and preserved, by resorting to such necessary and natural exercises; and from what he

has seen, he believes that a great many of the accidents that happen are occasioned by the want of foresight, by awkwardness, or the failure of force in those who are the victims of them. How necessary, then, is the knowledge of self-preservation? This being, as is commonly said, the first law of nature, it justly claims a place with the first things to be learned. During a residence of sixteen years on the Continent of Europe, he has been frequently amused, and also much benefitted, in observing the athletic sports of the Continental inhabitants, particularly those of Greece, where the general practice of bodily exercise is a matter of emulation, from the just estimation in which excellence in the physical powers is held by all persons of distinction. He has often wished to see the companions of his youth, and to present them with his mental cargo of Herculean games, which he knows would be to them a source of great amusement, and a real benefit through life; their daily occupations requiring a robust body and an invariable state of health, which precious treasure is only to be found in the use of a well-regulated system of bodily exercises. The select rules which are here laid down for the practice of youth are intended to awaken and augment the physical powers, which often remain torpid, in the greater part of children brought up in large cities, where they seldom find an opportunity of developing their strength in the open air. Almost all of these exercises may be practised in the smallest apartments, and that without the risk of any accident whatever. It will be found advantageous to follow the order in which the exer-

cises are arranged, as being the most likely method of arriving at that degree of perfection which this Work is calculated to insure. As he has laid down the easiest to begin with, and as the pupil increases in strength, he will find the Rules more difficult, and, as a consequence, more beneficial, inasmuch as they produce elasticity in the joints; and the frequent extension and contraction of the articular ligaments develop in their greatest extent and perfection the powers of the human frame, rendering each part much more supple, giving more consistence, and producing in the different members of the body the greatest flexibility. To parents, he would say, if you make the health and comfort of your children a matter of study, accustom them to more robust and manly exercises—be not afraid of their being in any way injured in carrying out the practice of these Rules. No Rule involving the slightest risk has been laid down. Let one Rule be well learned and frequently practised before you proceed to the next, and you shall find the strength and flexibility of your children so rapidly increase, that in a short time you shall see them able to go through the most complicated and difficult of them with the greatest dexterity and safety. Even females may practice the most of the Rules to great advantage, in guarding them against and curing spinal complaints, contraction of the chest, projection of the shoulder, &c. And as it is practice alone that can prove the value of this unpolished production, let it have that test, and it will be found to be a rough diamond—a lasting family treasure, which the failure

of banks cannot affect. To youth is recommended caution and perseverance, and they shall find this to be a strong natural fortification against the innovations of premature mortality. For,

“An aged veteran takes the field,
'Gainst conquering death fair youth to shield;
Who'll learn this art, grow strong and brave,
And guard against an early grave?”

“To health and strength these Rules invite.
Their practice will give great delight;
The course of literature pursue
More swiftly, smooth'd by this my clue.”

PHYSICAL TRAINING.

SECTION I.—ON SITTING POSITION.

Before I proceed to lay down the rule for sitting, I would remark, that too much attention cannot be given to children and young persons when in this attitude, as it is here, in general, that many bad habits are contracted. The body should be perfectly erect, carefully avoiding leaning to either side, as by that means the muscles of one side are drawn up, whilst those of the other are extended. This attitude curves the spine, and in many instances projects one shoulder; and if this is permitted to go unnoticed for a few months, by that time the muscles will have acquired such a degree of obstinacy, as to incline the individual to this lean in walking. There is also a greater evil to be guarded against than the one just described, which is that of stooping, for by this the shoulders are rounded, and the chest narrowed. These things have not only a bad appearance, but also an injurious tendency, inasmuch as they prevent the proper action of the lungs, which, being so pressed, cannot freely inflate, and consequently the breathing in such cases is short, and the parts of the lungs which are unemployed must give way. Again,

stooping brings the weight of the body to press on the bilious organs, which retards the progress of digestion, and greatly injures the health. With regard to the action of the lungs, I shall give a simple illustration of my remarks. For instance, observe a pair of bellows in use on the fire; when drawn but a short distance apart, they have but a faint action; but draw them fully asunder, and their blast is quite different—blowing the moral machine into good business order. How great is the amount of mortality caused by neglect of such simple and natural treatment? How many, who have fallen victims, would at this time be useful members of society, the consolation of their parents, and the protectors of their families, if they had got a more vigorous education, and care had been taken to accustom them to keep the body in a proper position? As they are lost to society, this ought to teach others a useful lesson,—to endeavour to guard their children from being bound by such fetters of mortality.

SECTION II.—ON STANDING.

I would solicit the strict attention of parents and teachers to this attitude, as it is much less attended to than that of sitting, and, in consequence of such neglect, children grow deformed, and that imperceptibly. If I were required to give a proof of this assertion, I am prepared to do so, by reference to any academy, in which

physical treatment is unheeded. I can point out, (in the presence of a surgeon,) the one-quarter of the pupils are now partially deformed. Here I do not allude to round shoulders or a narrow chest—these are things easily perceived even by persons of limited information. Now, if this is not speedily checked, it will be a difficult matter to do so when they have left off growing. Some parents may be a little alarmed or perhaps offended at such a statement, but I hope I shall not become their enemy because I tell them the truth. A little patience, and attention to the explanation of my Rule for Standing, will not only lead them to understand the deformity I have alluded to, but will also teach them how to prevent it. Observe that children, when standing, rest an equal weight of the body on each foot, the toes a little turned out—this preserves the shoulders and body square to the direction in which they may wish to stand or walk; as turning in one foot more than the other will be sure to throw back the opposite shoulder; for the feet in this way have as much command of the body, as the rudder of a boat has in turning it in any given direction. The heels should touch one another, the knees be kept perfectly straight, but without stiffness, the haunches and stomach rather drawn in, the arms hang pendant by the sides, when not employed; the shoulders are to be pressed back, the chest expanded as much as possible, the head held up, and the look straight to the front. This position cannot be attended to at all times when children are standing; it is merely laid down as a rule for their standing lesson; however, I would here ob-

serve, that children, when standing for any length of time, as they often have to do when reciting to their teachers, should be careful to have their knees straight; above all things, guarding against bending either of them. For example, if the left knee be allowed to bend, the muscles of that leg will be contracted, and, what appears strange, the muscles of the left side will be extended; at the same time, the muscles of the right side will be contracted in proportion as those of the left are extended. This causes the left hip to enlarge, lowers the right shoulder, and tends to curve the spine and project the left shoulder. Bending the right knee will act precisely in a similar manner on the other side. I would take the liberty of requesting all persons having children, who may read this work, to look to them immediately, and, should they observe any disposition to the foregoing, to set about the cure as soon as possible. I shall explain how this is to be done, and what I always find to effect a cure. If there has been an inclination to bend the left knee, cause them to straighten it, and bend the right one, tying a handkerchief round the left ankle and left wrist, in order to keep the body at this bend; by resorting to this method, the evil is completely counteracted, if attended to in the period of growth. It is also necessary to guard children against leaning back when standing, as this projects the stomach, and greatly tends to weaken the back, and produce irregularity of gait. The head (which is at the top of the spine) is to be kept perfectly straight, for allowing it to incline to either shoulder will stretch the muscles of

one side of the neck and contract those of the other. Where this has already taken place, the head must have a contrary lean, and be kept in that way for a quarter of an hour or twenty minutes at a time, till the evil be completely checked, when the erect position of the body and the head must be assumed.

SECTION III.—OF WALKING.

Of all the movements of which man is capable, walking easily and erectly deserves the preference; because it is one of his natural movements, that which he has most frequent occasion to use, and very often under public notice. From these considerations, I have been induced to give the first place to those exercises which aim at the promotion of health and beauty of figure. I have thought them of greatest importance. But, notwithstanding all my pains in this respect, some persons may indulge a smile at my unnecessary exactness in walking; for it may be said, almost everybody knows how to walk, when not hindered by obstacles or defects. The experience of twenty-five years' practice as teacher, and daily observation in the streets, convince me of the contrary; for if we give attention, we shall have opportunities of remarking, that very few persons, however well formed, in walking, preserve a really erect position, and an air of becoming confidence and dignity. The movement, well executed, evinces not only the force of the

body, but, more than is commonly thought, the moral character of the individual. The body ought to have a graceful and noble movement, being ready at a moment to increase or diminish its rapidity, without deranging the equilibrium, or the union of the parts in motion. To walk is to make a progressive movement, the body resting for a moment on one foot, whilst the other is advanced; then the centre of gravity of the body is made to fall from one foot upon the other. The step ought not to exceed thirty inches, and every pace to be of equal length; for if the step be taken too long, the body cannot well accompany the limbs, or retain its proper balance. A stiff and affected manner of walking is to be carefully avoided: we should ever aim at a free, easy, and natural gait, which is only attained by much practice.

EXERCISES FOR THE LOWER EXTREMITIES.

SECTION IV.—FIRST STAGE OF BALANCE STEP.

AT the order, "Prepare to balance," the hands are placed on the sides, with the fingers to the front, the thumbs behind, and pressed gently with the arms, in order to steady the upper part of the body; then, at the command, "Left foot balance," the left foot is raised off the ground and brought slowly forward, till the heel is as far forward as the toe of the right foot, but not in front of or crossing it; at the same time, the weight of the body bears principally on the fore and inner part of the right foot, not suffering the left to touch the ground. Remain in this position for about ten seconds, or till the body is quite steady, when the instructor gives the order "Rear," when the left foot is to be passed smoothly back until the left toe is as far back as the right heel, the left heel being kept well down, yet not so as to touch the ground. Remaining for ten seconds here, the word "Front" is given, "Rear front," &c. The same practice is to be gone through, standing upon the left foot. This stage is not to be hastily passed over, as it is exceedingly necessary, in order to give a freedom of movement to the haunches. I do not approve of keeping pupils standing long on

one foot at a time. For my own part, I find it a good plan to vary their exercises, particularly during this stage of practice, which is the most unpleasant one in the book. After having been at it for about a quarter of an hour, I allow them to walk about the room or drill-ground, as the case may be. I then set them one by one to what we call pulling the foot. I go to a table or window, and, standing about twenty inches from it, I put one foot (say the right) on the edge of it, and keeping both knees quite straight, I grasp my right foot with my right hand, keeping my shoulders square to the table. I repeat this with the left foot up, after which I see that all my pupils do the same. When they are able to do this with ease, I cause them to hold the right foot with the left hand, and, again, the left foot with the right hand. This exercise greatly strengthens the muscles of the legs and supple the joints of the haunches. After these exercises, I resort to something else, having the same object in view. I order the class to form (that is, all standing on the same line) at what is called "Attention." At the command, "Right hand to front," each boy holds out his right hand, keeping the arm in line with his shoulder. At the command, "With right foot kick," keeping the knees quite straight, each pupil kicks his right hand six or eight times with his right foot. The same thing is repeated with the left foot and left hand. Ultimately, I bring them back to the first stage of balance step, not suffering them to proceed to another stage till they can move with perfect freedom from the haunches, and keep the body quite steady.

SECTION V.—SECOND STAGE OF BALANCE STEP.

When the class is standing steady and erect, the instructor gives the order "Prepare to balance," at which the hands are placed on the sides, as in the first step; then, on the order "Front," the left foot is brought forward precisely as in the first part, and kept in this position till the order "Forward" be given. At this command, the pupils simultaneously take one step with the left foot straight to the front, and place it smoothly on the ground, about thirty inches in front of the right,—the body moving forward with the foot, retaining its balance, while the right foot is raised off the ground and brought up to the left heel, but kept off the ground till the command "Front" be given. The right foot is then brought in front as the left was, and on the word "Forward," a pace is taken with it, as was with the left. And so on, till the command "Halt." At this stage, the principal thing to be attended to, is the true balance of the body, keeping the feet turned out when placed on the ground, and the equality of the paces. By way of resting them, I put the pupils next to what is called the

FIRST FIVE EXTENSION MOTIONS.

At the command, "One," the hands are moved slowly to the front, till the points of the fingers meet close to and in front of the body, at the full extent of the arms. The pupils continue moving the arms up in

front of the body, till the hands and arms form an arch over the head, both being raised as high as possible. At the order "Two," the hands are separated, and the arms lowered to their position by the sides; but, in lowering them, the arms are forced obliquely to the rear of the body, the chest swelled as much as possible, and the body inclined forward on the forepart of the feet. "Three," the arms are brought out from the sides, and met over the head, as in the preceding, except that the points of the thumbs are brought to touch the palms of the hands to the front. "Four," the arms and the upper part of the body to be gradually lowered, till the fingers touch the toes, keeping both knees quite straight. "Five," the body is raised to the position of "Attention," and the arms fall away to their places by the sides. These exercises are intended to supple the joints, expand the chest, and strengthen the muscles of the back and legs. Indeed, this part is considered so beneficial, that the young soldier has to perform it every time he takes the ranks for drill.

SECTION VI.—TO MAKE THE LETTER T WITH
THE BODY.

Standing all on the same line, with the arms pendant by the sides, the instructor, first showing how it is to be done, gives the command to form the letter "T;" then, on the command "Go on," the whole of the class

lower the body to the front, and raise one leg behind, (say the right,) till the body and the leg are in a horizontal line, keeping both knees perfectly straight. This exercise acts upon the muscles of the front part of the right thigh, from the knee to the fulcrum. It also has a decidedly beneficial effect on the back and the chest, as the shoulders must be pressed well to the rear; in order to form the letter properly, after performing the manœuvre with the right, it is succeeded with the left.

SECTION VII.—SLOW MARCH.

The class stand in line, with the shoulders and body square to the front. The order "March" is given, when all step forward, with the left foot, a pace of about thirty inches; they repeat the motion with the right foot, and so on, but take care to keep the feet properly turned out, and to place them very softly on the ground, not to cause any jerking of the body. During the march, the head is to be kept well up, the body perfectly balanced, and gliding gracefully forward. I do not allow my scholars to take more than sixty paces in a minute, though the military rule is seventy-five. I find, that by walking only sixty paces, they acquire the balance of the body much sooner, as they have to make a pause at each pace, and can rest longer on each foot. When the class is marching in this manner, I give the word "Balance," at which,

in bringing forward the foot to make the step, they keep it off the ground, in the same manner as in the "first stage of balance step." When the pupils are steady, I again give the order "March," when they proceed as before, till the command "Halt" be given, when the class bring the feet together, and stand in a steady position.

SECTION VIII.—QUICK STEP.

This March differs from the slow step only by the greater rapidity with which the paces succeed each other; we generally make one hundred and eight in a minute. The same rules are to be observed as in the preceding section.

SECTION IX.—THE CROSS STEP.

This step tends to render flexible the knees and other articulations, to fix the position of the body, and give grace to the shoulders. It is performed in two ways. First, from left to right, then from right to left. When it is made to the left, the right leg is moved first, and passed behind the left. The left is then moved in the same direction, the centre of gravity of the body falling alternately on each. The contrary

action takes place when the step is made to the right. This exercise may be varied by making the leg which crosses pass before instead of behind the other.

SECTION X.—THE FRENCH STEP.

This exercise may be regarded as preparatory to dancing, running, and jumping, as it greatly develops the interior muscles of the legs and thighs, and is particularly calculated to strengthen the joints of the toes, and contributes to render the walk more erect and elegant. It has also the advantage of habituating those who practise it, to preserve their equilibrium on the narrowest basis. The pupils are to be placed in line, in the manner previously described. At the word of command on "Tip-toes in place," the pupils place their hands on their sides, and wait the order "Rise," when they gently raise themselves on their toes, join the heels together, and keep the knees straight. They remain in this position till the order "Down" is given, when they fall back gently on their heels, the hands being allowed to fall down to their natural position at the sides. After a few seconds' rest, they are set to this exercise again, and, when on their toes, are caused to practice what is called the "Bird's jump." On the order "One," they jump forward about ten inches on the points of the feet, keeping the knees as straight as possible. This practice is to be continued as long as the muscles are able to keep their tension, which,

during long experience, I have seldom found pupils able to effect longer than one or two minutes at a time, unless where they have had long practice. I know of no exercise so beneficial as this for strengthening the muscles of the lower extremities, and also giving the body a perfectly erect position. The head must necessarily be kept up and steady, or the body will lose its balance. After the pupils have practised this for a time to the front, they must then practise it to the rear, which is more difficult by far than to the front. It is easy to judge of the beneficial effects of these exercises, from the body requiring to get its forward impulse to make the spring, and being made to fall with a jerk on the muscles when at their tension. I make my pupils perform the different forward and backward marchings in this position, and after having practised the manœuvre for some weeks, I cause them, one by one, to stand upon a chair or form, and, holding them by one hand, make them jump off the elevation to the floor, keeping the knees straight, and coming down on their toes, or points of the feet.

SECTION XI.—THE GREEKS' SALTA.

This exercise consists in throwing the feet straight forward alternately, as if forcibly kicking at some object in front. It may be made either advancing or retreating. When well performed, it acts powerfully on the muscles of the back and other parts of the body.

It is also useful as a means of defence against the attack of an animal or other enemy. The inhabitants of different parts of Switzerland, and several other countries of Europe, fight in this manner, without making use at all of their hands, which they place in their bosoms or on their backs.

SECTION XII.—TRAMPING ON THE GROUND IN PLACE.

This exercise, which is generally performed in place, is done in two ways. In the first, the lower articulations are bent, and, in the second, they are kept straight. It has four different paces—the moderate, prompt, accelerated, and precipitate paces. In the moderate pace, with the articulations bent, at the word of command “Trample,” the knees are moved a little forward, the heels raised from the ground, the body made to rest on the foreparts of the feet, the hands are shut, and the arms bent on the haunches. At the order “Firm,” the feet are raised from the ground alternately, observing the proper measure. The legs are to be kept as close together as possible, and the same gradation is to be observed here as in the preceding exercises. That is, the pupils must not be allowed to pass from this to the prompt pace till they are well confirmed in this and the preceding. To diminish or increase the rapidity of the movements, the instructor may make use of the words “slowly,”

“gently,” “quick,” “rapid,” &c. To perform this exercise with the lower extremities stretched, the weight of the body must rest on the bottom of the feet, the knees must be kept straight, and the stomach back, without, however, leaning the body too far forward. The movements of the feet, and the position of the arms, are the same as in the preceding exercises. This movement, simple as it is, and easily performed, is particularly useful to persons confined to a sedentary life, and may be gone through in very small places, without making either noise or dust. It is of essential benefit to persons who are subject to affections of the stomach, as the movement of the feet, which are raised with velocity and at equal intervals, a little distance from the ground, produces in the abdominal region a movement which fortifies these parts. The movement may be retarded or accelerated, in proportion as the exercise is required to be more or less violent.

SECTION XIII.—THE BROKEN STEP.

In the broken step, there are three quick paces and three in a slow trot. This pace possesses great advantages where it is necessary to travel far in little time, and without regarding local obstacles. After a person is a little habituated to it, he may travel seven or eight miles in an hour, and continue at this rate for several hours successively, without being much fatigued, the alternate change from the quick step to the trot

giving time to the lungs to dilate themselves without any perceptible effort. During the quick step, the muscles and the articulations of the lower extremities enjoy a momentary repose, and acquire fresh power.

SECTION XIV.—THE TICK JACK.

This is a quick movement, and consists in striking the feet distinctly on the ground. The first consists of four times, the second of five, and the third of seven. It may be performed first in place, afterwards in any other direction, and with greater or less rapidity. In whatever direction the movement be made, the stamping of the feet should always be continued as it was begun. To execute the first movement in place, it is essential that the body be kept in an erect position, the arms placed akimbo, and the heel of the left foot before the hollow of the right; when it is intended to give the blow with the right foot, the first movement consists of throwing all the weight of the body on the left side. In this position, the first time is formed by raising the right foot in a perpendicular direction, then placing it plain upon the ground, counting one; the left foot, so to speak, finding itself driven from the side of the other, strikes one blow lightly against the ground with the toe, and another with the heel, and is then placed plain on the ground, when all the weight of the body is caused to rest on the left foot. The right foot is raised and set down again immediately,

and forms the fourth time. In this exercise, each foot strikes twice. The first time is made by the right foot, which is raised and placed down again immediately. The second and third are made by the left foot, which strikes two quick blows against the ground, and places itself immediately. The right foot, which is quickly raised and placed down again, makes the fourth time. The same exercise, with five times, only differs from the first by the last stroke, and the rapidity of the movement. The three first times are performed as above described, but, at the fourth, the foot which gives the blow strikes twice consecutively, which makes the five times—one with the right, two with the left, and two again with the right. The exercise of seven times has this difference, that, after having executed the five first times, the two last are made by striking two alternate blows—the first with the left foot, and the other with the right. In order to perform this exercise with facility, it is necessary to bend a little on the articulations of the lower extremities of the side where the motion is given, and, at the same time, to make the movement of the feet with great ease and suppleness. From the description of these exercises, it is easy to perceive how much they contribute to develop the force, the suppleness, and the agility of the lower extremities. The haunches, the knees, and the muscles of the thigh, which make the movement, are the parts which are most fatigued. The striking of the toe and the heel, as well as the momentary station of the other foot, are very advantageous in augmenting the force of the muscles of the calf, and increasing the supple-

ness of the instep. That one part may not acquire more force than the other, it is necessary often to change the legs in giving the blow.

SECTION XV.—THE GREEK PREPARATIONS FOR
DANCING.

To perform this, the right leg is slowly raised till the knee is straight in a level with the stomach, but care must be taken not to derange the position of the upper part of the body. The right hand is allowed to fall gently down between the thighs, and grasp the instep of the raised foot. When steady there, the instructor gives the order "Right knee to the ground," at which command the pupil must lean the upper part of the body forward, bend upon the leg which supports it, and endeavour to touch the ground with the right knee. Having touched it, raise the body again without letting go the foot or losing the balance of the body. At the order "Down," the right foot drops to its place, and the same thing must be done with the left. It is, however, to be understood, that, in lowering the body, the hand is not to touch the ground.

SECTION XVI.—THE CROSS TOUCH.

Without losing the balance of the body, the left leg

is to be raised gently behind, and the right hand, falling back, is then made to seize the instep of the left foot. The instructor next gives the order "Left knee to the ground," when the pupils bend the body gently to the right side, and try to touch the ground with the left knee. After this, they rise again without letting go the foot.

SECTION XVII.—THE TOUCH OF THE TOE.

At the command "one," the arms must be extended in front of the body. "Two," the left leg will then be raised and extended backwards, the knee and the instep being kept straight, the arms and upper part of the body inclining forwards. When the raised leg has gained its highest point of elevation, the order is next given, "Toe to the ground," when the body is lowered and made to bend upon the right knee, till the toe of the raised foot touches the ground, without being obliged to lower the leg much. As the toe touches the ground, the weight of the body is made to rest on the left knee. The balance must still be preserved, and the body raised again very steadily, till it has received its first erect position. The same exercise is then gone through with the left.

SECTION XVIII.—TOUCH OF THE HEEL.

From the position indicated in the preceding section, one leg is stretched forward till in a line with the fulcrum, and, when there, the body must be gently lowered till the heel of the extended foot touches the ground, then the body is again raised, still keeping the leg in a horizontal position, till the order "Down" is given, when the leg is lowered to its place. This manœuvre must be repeated with both legs in turn. This and the preceding exercises may be seen to have a decidedly beneficial tendency, so much so, indeed, as to be considered the very best introduction to dancing. The greater part of them tend to accustom young persons to assume and preserve different balances, whilst at the same time they gracefully develop the various members of the body.

SECTION XIX.—OSCILLATORY MOVEMENT.

This movement is performed by swinging the arms forcibly backwards and forwards in equal time, with the hands shut; first with one arm only, afterwards with both alternately, and succeeded by using both at the same time. When only one arm is in action, the other ought to be turned on the breast, with the hand closed. In this exercise, the shoulder and the arm in motion should be kept rather stiff, to prevent the articular ligaments from being too much stretched.

SECTION XX.—CIRCULAR MOVEMENTS.

These are performed in three different ways—the first from behind to before, the second the reverse, and the third with both arms together. In the first case, one of the arms rapidly describes a cone, the base of which is at the extremity of the hand, and the summit at the articulation of the shoulder. It is to be understood, that the movement is made with both arms alternately. During this movement, the arm should not be left too much to its own weight—that the top of the humerus, which moves in the cavity of the shoulder-blade, may have moderate and equal friction. To perform this and the following exercises without constraint, the pupils should be placed at two paces' distance from each other.

SECTION XXI.—VERTICAL MOVEMENT.

Standing in line, at the command "One," the arms are to be bent in the direction of the arm-pits, with the hands shut, the nails turned inward, the elbows close to the sides, the shoulders square, and the body erect. One arm must then be quickly raised, and made to pass close by the temple, in a vertical direction, and allowed to remain there, and form a parallel with the head, and the shoulder must nearly touch the ear. At the command "Two," the arm, by a retrograde action,

takes its first position. This movement to be repeated till the order "Halt" is given. When this movement can be executed with celerity, sometimes with the right, and sometimes with the left arm, the pupils may be habituated to do the same thing with both arms alternately, counting, in equal time, with more or less precipitation, "right," "left," "right," "left." Afterwards both arms may be exercised at once, preserving due regard to the equality of time.

SECTION XXII.—TO MAKE THE SEVEN OR SQUARE.

In this, the pupils must be seated on the ground, the hands kept quite close to the body, the palms in the direction of the haunches, with the fingers outward, and joined together. In this position the body must be raised from the ground, by pressing strongly with the hands, and using the strength of the arms only. The body must be kept in balance, and the legs, raised from the ground, must be kept stiff, without the heels touching the ground. The body will then be moved sometimes to the right, and sometimes to the left.

SECTION XXIII.—THE GOAT'S JUMP.

Placed on the hands and arms, as described in the foregoing section, the pupils must endeavour to advance

by jumping, without bending any articulation, the loins and the arms giving the impulse, and the feet following, without being dragged along the ground. The same exercise is also performed backwards.

SECTION XXIV.—THE GREEKS' POLYCARY.

The pupils seat themselves on the floor, two and two, facing each other, with their legs at full stretch to the front. Their feet are then to touch each other, with their heels on the floor, and the toes pointing upwards. A strong walking-stick is next placed between their feet, of which each two pupils take a hold, and remain there till the order "Pull" be given. At this command, each pupil tries to the utmost of his power to bring his partner straight up on his feet. While sitting, the knees are not to be allowed to bend; for should they bend in the least, the action is taken off the muscles of the legs and the spine.

SECTION XXV.—THE CHINESE SALUTE.

At the command "Lock arms," each pupil brings the arms behind the back, the left hand grasps the right above the elbow, and the right hand is placed under the left elbow. In this position the arms draw

the shoulders well back. At the order "Two," the right foot is brought about twenty inches in front of the left, and placed on the ground. At the order "To the ground," the upper part of the body is lowered, till the forehead touches the ground; the weight of the body rests on the right knee, and the left is kept quite straight. The same exercise is to be repeated with the left foot in front.

SECTION XXVI.—THE PORTUGUESE TWISTER.

The pupils, standing in line, are told off right and left; when this is done, the order "Inwards turn" is given by the instructor, when each right file turns to the left, and the left files to the right, which will bring each two face to face. At the order "One," each right file will bring forward the right foot about thirty inches, and place it flat on the ground. "Two,"—the left file will bring forward the right foot, and place the side of it against the inside of the foot of the right file. In this position they take hold of each other's right hand, and continue thus till the instructor sees that they are all ready. The order "Pull" is then given, when all the pupils use their whole strength to pull forward their partners, without jerking or tugging, which would bring them off the balance, but by straight pulling. When this is effected, they change the feet and hands, and repeat the manœuvre.

SECTION XXVII.—POSITIONS.

First Position in Three Motions.—At the order “One,” the arms are locked behind the body, the left hand holding the right arm, and the right hand holding the left elbow. At the order “Two,” the body is made to turn a little to the left on the heels, and the look and head kept to the proper front. “Three,” the feet must be brought to right angles, and the right heel placed inside of the left foot, so as to have the back part of the left heel and the outside of the right foot in a line. The right toe must point to the front, and the left toe straight along the line to the left. When all are steady in this position, the instructor gives the order—

“Second Position in Two Motions.”—“One,” the body must be lowered by bending the knees and forcing them well asunder, whilst the body retains its erect position. “Two,” the right foot will be brought smartly forward twelve inches in front of the left, and the knees be kept at the bend, with the whole weight of the body resting on the left leg. This is a most fatiguing position, as the muscles of both legs are obliged to sustain the weight in a contracted order.

Four Balance Motions.—“One,” the right foot will be brought eight inches behind the left, the right toe placed on the ground, without, however, resting any weight on it, and the legs still at the bend. “Two,” the left leg will be straightened; this is done to give

it a momentary rest. "Three," the left knee is made to bend again. "Four," the right foot must be brought smartly forward to its place, in front of the left, and, at the command "First position," it is brought back to the left with the knees straight.

Third Position in Two Motions.—"One," the body is inclined a little forward, and, at the word "Two," the right foot is brought thirty-six inches in front of the left, the left knee straight, and the right bent till the knee is over the instep; the body is to be perfectly upright in this attitude.

Second Extension Motions.—"One," the arms are to be brought slowly in front of the body, with the hands closed, till they meet at the bottom of the chest, with the elbows and wrists in line; the movement of the arms is to be continued till they are brought as high as the chin—the arms are then to be separated; the right hand, at full extent, in front of the body, and as high as the shoulders; the left arm straight behind the body, and both arms forming a sort of oblique line. "Two," the body is made to lean forward, bending the right arm at the same time till the elbow touches the right knee, with the hand close to the point of the right shoulder. Here the head is to be held well up, and the right knee kept still at the bend. "Three," the body to be raised to its erect position, and, when there, the right hand is thrown smartly to the front. "Four," the right knee is extended, keeping the arms as they were. "Five," bend the knee. First posi-

tion,—spring briskly up to attention, and bring the right foot to the left, and the hands behind the back. At the order “front,” the body turns to the front, and the arms are dropped by the sides. The same exercise should be gone through with the left foot in front. These exercises contribute to the strength and elasticity of the limbs.

SECTION XXVIII.—OF JUMPING IN GENERAL.

Of all the corporal exercises of which man is capable, jumping is, without doubt, the finest and most useful; and, as it can only be executed with facility, in proportion to the strength and elasticity of the articulations of the muscles of the lower extremities, much practice is necessary, in order to attain that degree of perfection which removes and smoothes all obstacles, by furnishing us with the means of overcoming them without danger. For instance, on a coach, at the mercy perhaps of an intoxicated driver, riding on an unruly horse, and in a thousand other circumstances, a jump, made with promptitude and assurance, might save our lives, or preserve us from fracturing our limbs. Lightness and perpendicularity constitute the entire merit of jumping; consequently the utmost pains should be taken to acquire these two qualities, for, without them, jumping has neither grace nor elegance,—and, we may add, no security. I would especially remark, that, to jump with grace and assurance, one should always

fall on the toes, taking care especially to bend the knees and the haunches, by which the movement is decomposed and rendered much more easy. The upper part of the body should be inclined forward, and the arms serve to break the fall. It is essential to hold the breath whilst jumping, for, in all the efforts that we make, the retention of the breath, by preventing the blood from circulating with rapidity in the lungs, makes it flow into the members which are in motion, and this greatly tends to increase, at the time, the strength of these parts.

SECTION XXIX.—PREPARATORY MOVEMENTS.

Raising and touching behind.—Here the arms must be pendant by the sides—the shoulders kept square—the hands straight, and the heels on the same line; at the word of command, “raise behind in place,” each pupil springs from the ground with both feet at once, without advancing or retreating, and endeavours to touch the upper part of the thighs with the heels, and then falls gently on the points of the feet. *To raise before*, the pupil, in jumping as high as he is able, does his utmost to make his knees touch his shoulders. These two exercises are also done in advancing and retreating, taking care to bend well on the lower articulations, and endeavouring to augment the impulse by throwing the arms in the direction of the jump. Keep the hands closed while the body is in motion.

SECTION XXX.—SIMPLE JUMPING IN PLACE,—THE
FEET JOINED.

This mode of jumping consists in a sudden impulse being exerted at the moment the body is raised from the ground. All the elementary exercises for jumping upwards are preparatory to jumping forward, and to a distance, as both depend on the size of the arc which is described in jumping. To facilitate this, I have endeavoured, by a great number of exercises, to aim at augmenting the force and suppleness of the lower extremities. Placed on the line, as described in the foregoing exercises, at the word of command, "one," the pupils bend and sit down, as it were, on their heels, their arms being kept close by their thighs. At the order "two," they rise again, keep the arms back and the knees straight, and move the upper part of the body forwards. These two movements are repeated till they are able to execute them with exactness and promptitude. Then, at the word "three," from the second position, by means of an impulse, they move their arms and the upper part of the body forward, fall on the toes, and wait the command of the instructor to recommence.

SECTION XXXI.—JUMPING, RUNNING, AND SKIPPING
IN A HOOP.

This is one of the most simple and amusing exercises

for boys. Children of from seven to eight years old, with the assistance of a hoop, are able to perform a great number of movements, which are very advantageous for developing their strength and address. The hoop which they use should be small enough to pass easily between their legs. The two ends which cross each other ought to be very thin, and firmly fixed with a piece of wire or strong twine. The projecting edges should be rounded as much as possible, that the children may not hurt themselves when they strike them against their legs, which is frequently the case when they begin this exercise.

SECTION XXXII.—FIRST EXERCISE.

Passing the hoop forward in place.—To perform this movement, the hoop is held at the point, the hands about four inches apart, the body kept in a perpendicular position, the head up, and the heels on the same line. The hands are then raised to the height of the chin, with the backs of them turned towards the face. Placed in this manner, they look through the hoop. The part which is to pass under the feet being now over the head, when the pupils are all steady in this way, the hoop is thrown under the feet, and a little jump is made with both feet at once, to let it pass. They then bring it from behind to before, and continue jumping, taking care to raise the feet well, and not to let go the hoop, to which is communicated a rotatory movement.

The hands only should be employed to put the hoop in motion, and they should be kept as close to the body as possible. In this, as in all the exercises of the lower extremities, they should rise and fall on the toes.

SECTION XXXIII.—SECOND EXERCISE.

Passing the Hoop behind.—Here the hoop passes over the head, descends behind the back, passes under the feet, and rises again before. In this action, the movement of the hands takes place in a direction contrary to that of the preceding exercise; placed opposite the middle of the stomach, they hold the hoop turned towards the ground; in this position, the hands are raised as high as the eyes, the arms are bent back, and the hands descend, passing close by the face and the breast. In consequence of the impulse it received in passing over the head, the hoop passes under the feet at the moment when the hands are just above the haunches. It is absolutely necessary to perform these two exercises well, before proceeding to others.

Running through the Hoop.—As soon as they begin to put themselves in motion, one foot is put through the hoop and placed on the ground, the other is then raised behind to let the hoop pass, and the hoop is brought again before the feet, by making it pass up

behind the back and over the head. The passage of the hoop under the feet is made when one of the feet is raised whilst the other is moved forward.

SECTION XXXIV.—HALF PASSAGE SIDEWAYS IN PLACE.

The pupil, holding the hoop in his right hand, and extending his arm, makes a little jump to pass the hoop under his feet, and rises into a horizontal position, standing in the middle of it. He then jumps again, passes the hoop back under his feet, and remains in his first position. This exercise should be made with the right hand till it can be done with ease and facility, and then it must be repeated with the left.

SECTION XXXV.—ENTIRE PASSAGE.

If this exercise presents greater difficulties than the preceding, it offers also the surest means of developing the address, by habituating the body to move itself with ease and celerity, whilst the arms are executing partial movements. To make the hoop perform an entire round, by throwing it under the feet, either from the right side or the left, the arm which acts should be raised and extended, parallel to the ear; then the hoop should be passed under the feet, which

ought to be raised high enough not to interrupt its motion. When it comes again into the first position, the hand not in action should be placed on the breast, and the elbow kept close to the body. It is especially necessary to perform the passage of the hoop under the feet well; if it has not sufficient impulse, it will take an oblique direction, and touch the body. What has thus been done with the right hand must be repeated with the left.

SECTION XXXVI.—THE RETURN OR HOOP PASSAGE
ABOVE.

As soon as the preceding exercise has been made with facility, the pupils may try to pass the hoop above; that is, to make an entire turn, by making the hoop pass over the head on the side opposite the hand which direct it. If the right arm acts, the hoop is thrown to the left; then, by making it pass over the head, down the side, and under the feet, it is brought again to its first position. To pass from the left to the right, the contrary movement is made with the left hand.

SECTION XXXVII.—LADIES' GYMNASTICS.

The sitting, standing, walking, and balancing can be

practised, and are equally adapted for young ladies, young gentlemen, and children; as also, the extension motions, and walking on the points of the feet.

SECTION XXXVIII.—HOOP EXERCISE FOR LADIES.

The size of the hoop, in diameter, is to be from the points of the fingers to the ear of the individual practising. The hoop must especially be very strong, so as not to bend in the different motions of the exercise. A strong willow will be found the best for this purpose, and the smoothest for the hands. Each having her hoop, they stand in line, holding the hoop in front of the body, at the full extent of the arms, the hands having a diametrical hold of the hoop. The instructor will then give the caution, "first division," and, on the order "one," the hoop is to be raised over the head, at the full length of the arms, and the same hold kept of the hoop as before. At the word "two," the hoop is lowered behind the back, as low as possible, without altering the position of the body, or suffering the hoop to touch the head. "Three," the hoop is to be brought to the right side of the body, at the full extent of the right arm, and in line with the right shoulder; the left hand is brought to the left side, and the arm in line with the left shoulder. "Four," the hoop is brought to its place in front of the body, as in the first position.

Second division.—Both hands holding the hoop, it is raised to the right side of the body, the left hand touching the right ear, and the right hand in a line with the right shoulder; at the same time, the head is to be well turned to the left, looking over the left shoulder, and the body is to be preserved square to the front. “Five,” the hoop is brought from the right side, over the head, as in the first exercise; but, in doing so, it is to be turned four times, each turn of the hoop being towards the body. This exercise is very beneficial for the muscles of the neck, back, and arms. “Three,” the hoop is to be brought to the left of the body in the same manner as it was to the right, and the head is to be turned to the right, looking over the right shoulder. “Four,” the hoop is to be brought to its place in the first position.

Third division.—On the order “one,” the right hand (alone) raises the hoop to the full extent of the right arm, straight over the right shoulder, and here the hoop is held in a vertical position. On the order “two,” the right arm is brought slowly to the front of the body, till the elbow touches the pit of the stomach, looking through the hoop, it being then held in a perpendicular position. “Three,” the hoop is dropped over the head, as in the first division, to be taken hold of with the left hand, behind the back, and brought to the left side, in line with the left shoulder, with the arm quite straight. “Four,” the hoop to be brought to its place in front of the body, thus completing the division.

Fourth Division.—At the word “one,” the hoop is placed on the right shoulder, holding it firmly with both hands. The right hand is then made to touch the right shoulder, and the left hand crosses the body, forcing the hoop as low as possible to the right side, preserving the shoulders square to the front, and not suffering the hoop to cross the body. Here the look and head are to be turned as much to the left as possible. At the word “two,” the hoop is to be raised high over the right shoulder, till the lower part of it touches the arm-pit, keeping equal hold of it with both hands, at the same time turning the head to the right, and looking through the hoop. Here a short pause is to be made, after which the hoop is lowered as before, and the head turned to the left. At the word “Up,” it is raised again—“Down,” back to its place; up, down, up, down—for ten or a dozen times; afterwards the hoop is placed upon the left shoulder, and the same exercise gone through, taking care to turn the head to the right. This being gone through, the hoop is to be brought to its place at first position.

Fifth Division.—“One,” the right foot is to be moved ten inches behind the left, placed on the ground, whilst at the same time the hoop is raised over the head, as in the first division. On the order “Two,” the upper part of the body is to be gracefully lowered, and the hoop made to touch the ground, without bending the knees. After a short pause—up,—again, down,—up, down, and so on—for ten or a dozen times; till the word “Steady,” when the hoop is kept over

the head, the left foot being brought at the same time ten inches behind the right, and the exercise gone through as before, till the word "Halt." The hoop is then to be brought down to its place in front of the body, thus completing the divisions of the hoop exercise.

The benefit resulting from these motions can hardly be described, as the different movements of the hoop tend to turn the body in the direction in which it is moved, which is to be guarded against, except in a few instances.

CONCLUSION.

I have now, although perhaps somewhat crudely, endeavoured to lay before the Public a Progressive Series of Exercises, which I have found, in my own teaching, to answer the very salutary ends which Gymnastic Exercises are intended to produce—and these are, summarily, the development of the form, the fortifying of the constitution, and the promotion of health, strength, and gracefulness. That these Rules may be so practised as to add to the felicity, health, and comfort of all who shall give them a trial, is the sincere wish of the author.