

My system for children / by J.P. Müller.

Contributors

Müller, J. P. 1866-1938.

Publication/Creation

London : Ewart, Seymour, [1912]

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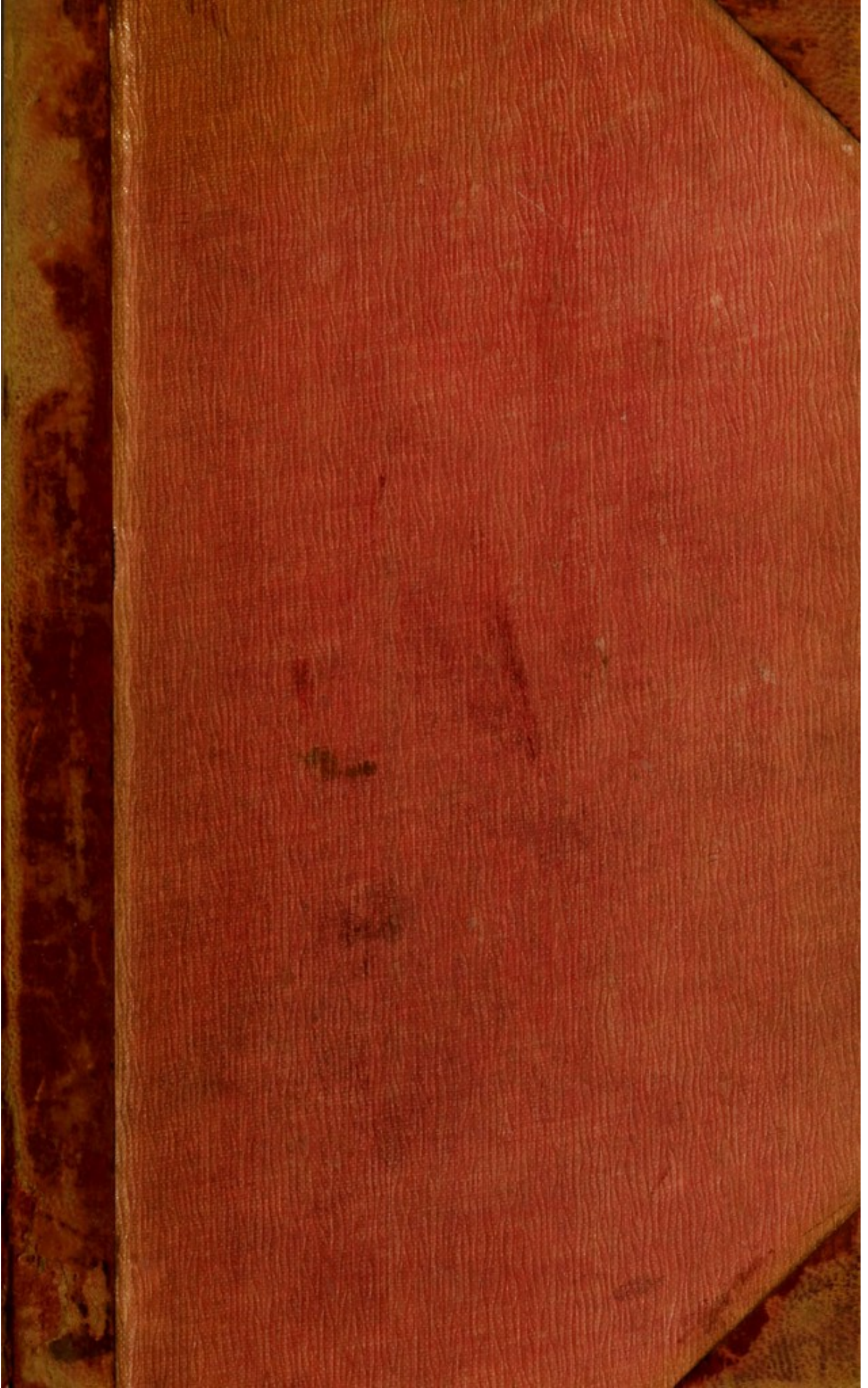
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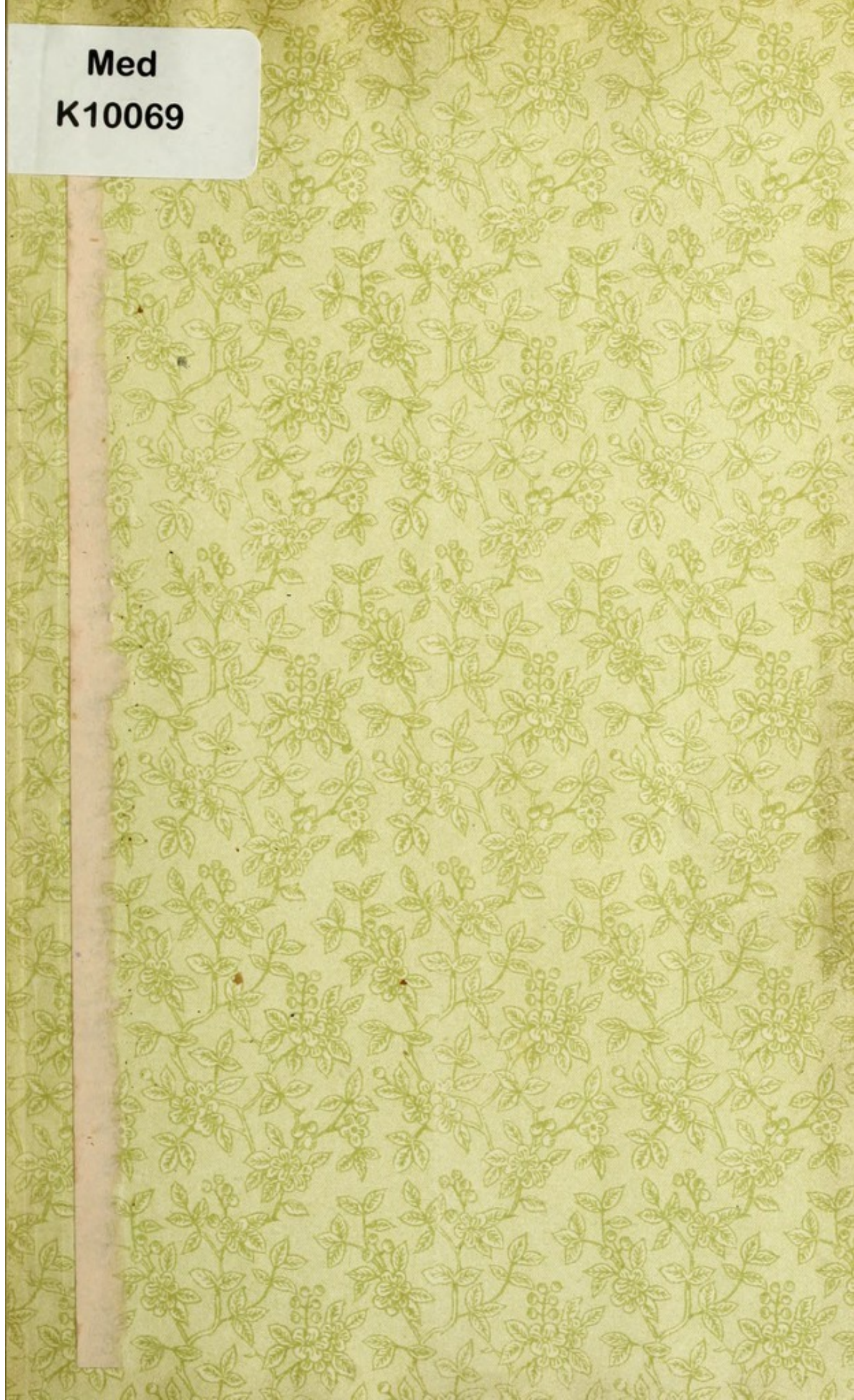
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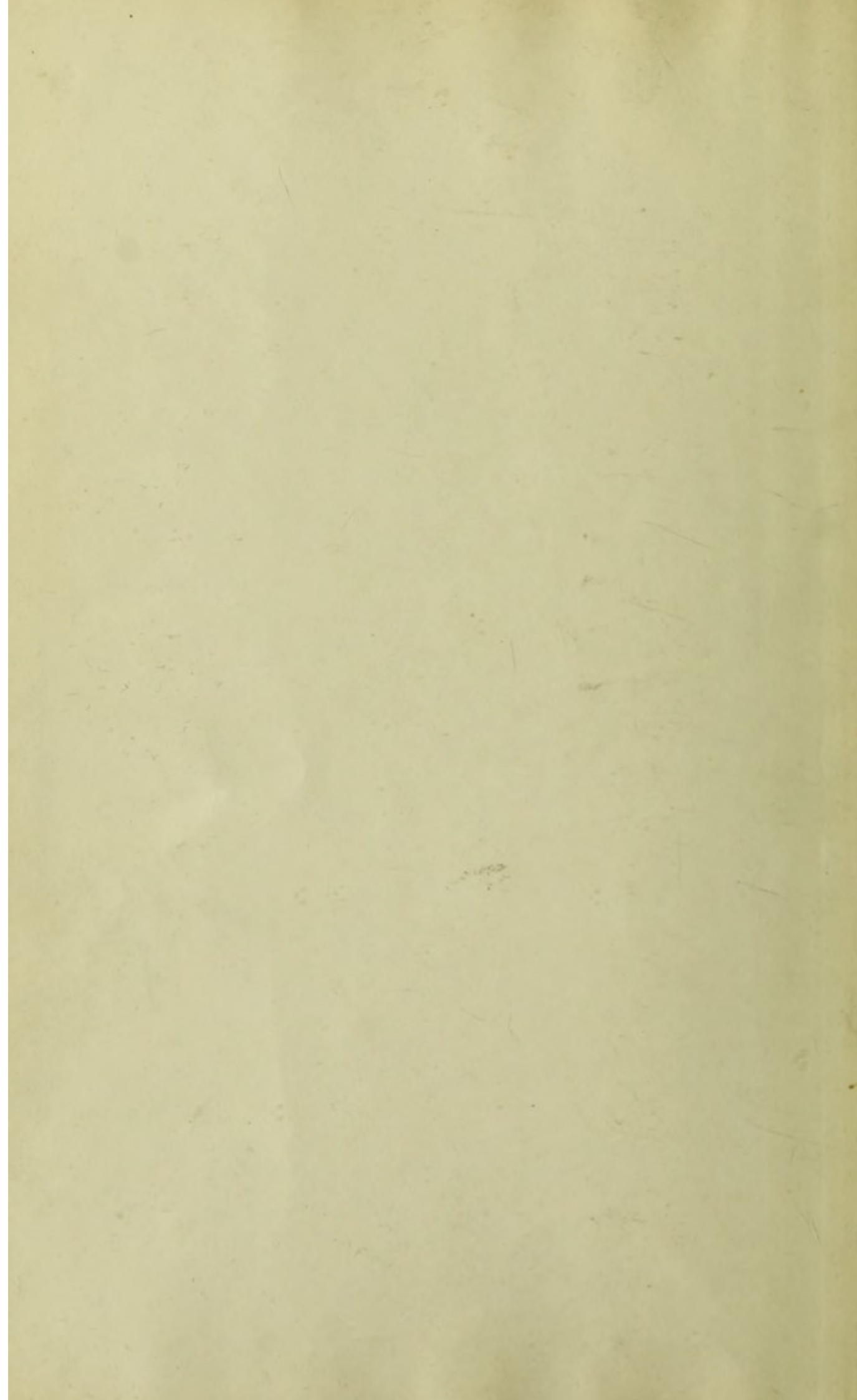
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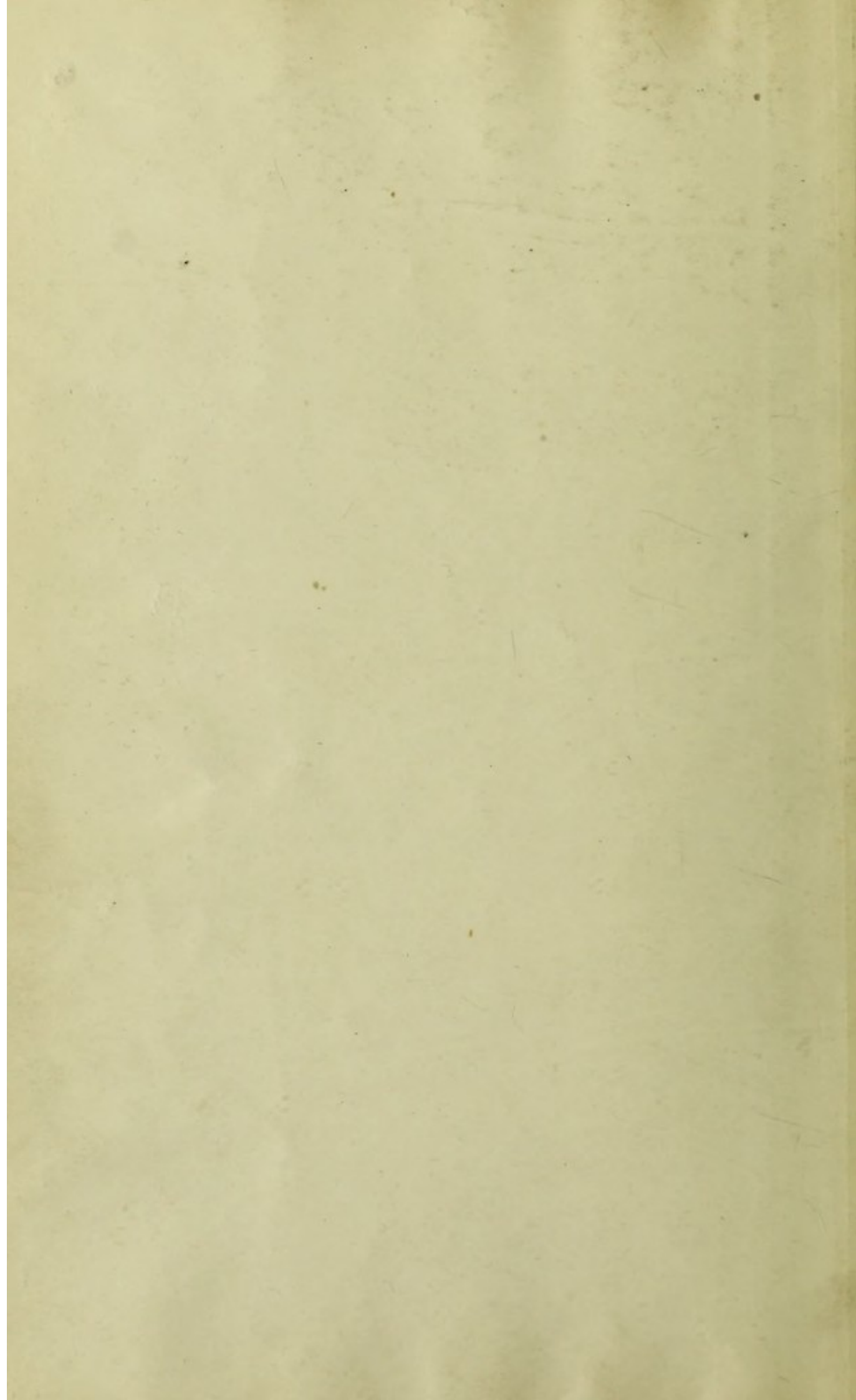




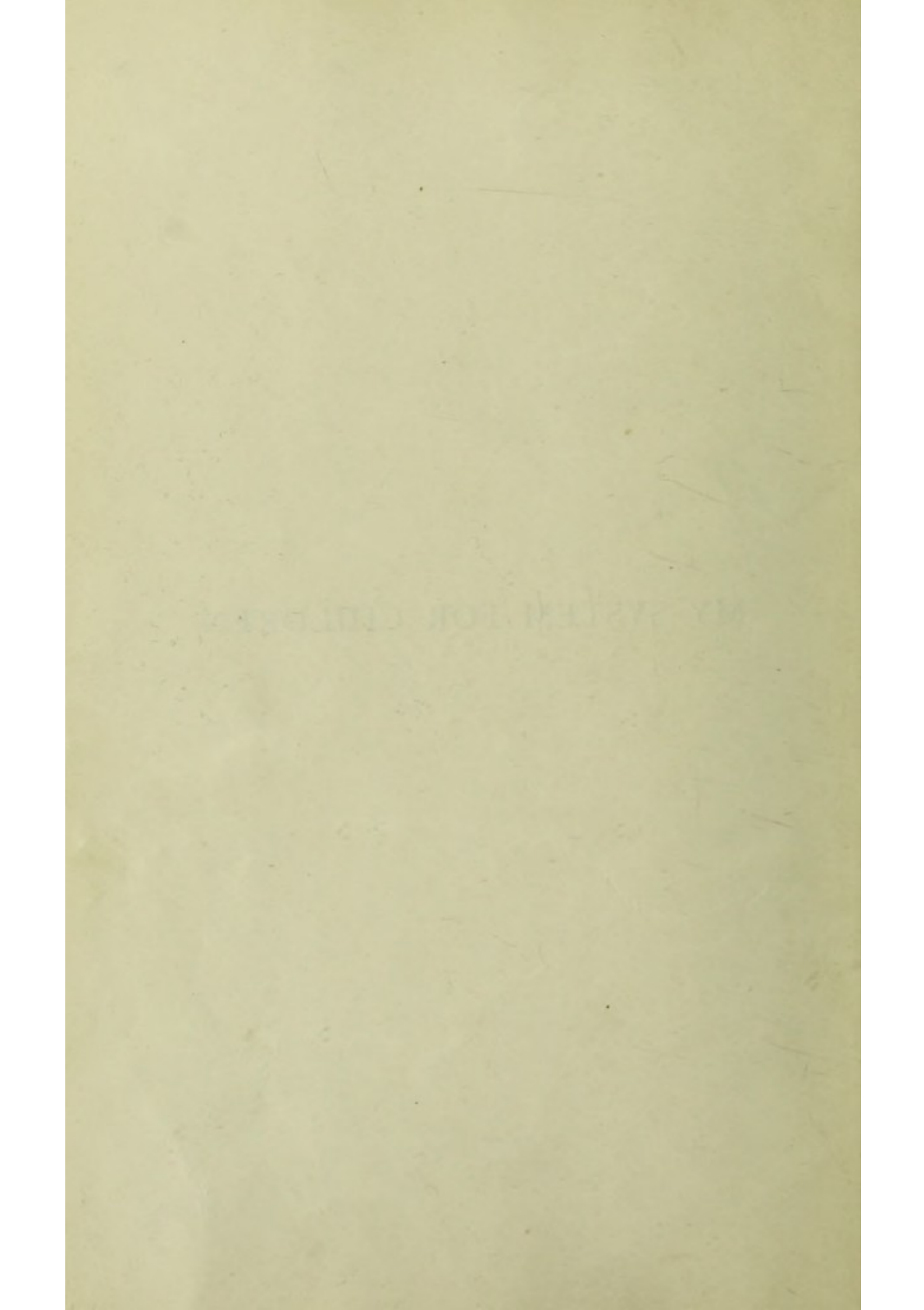


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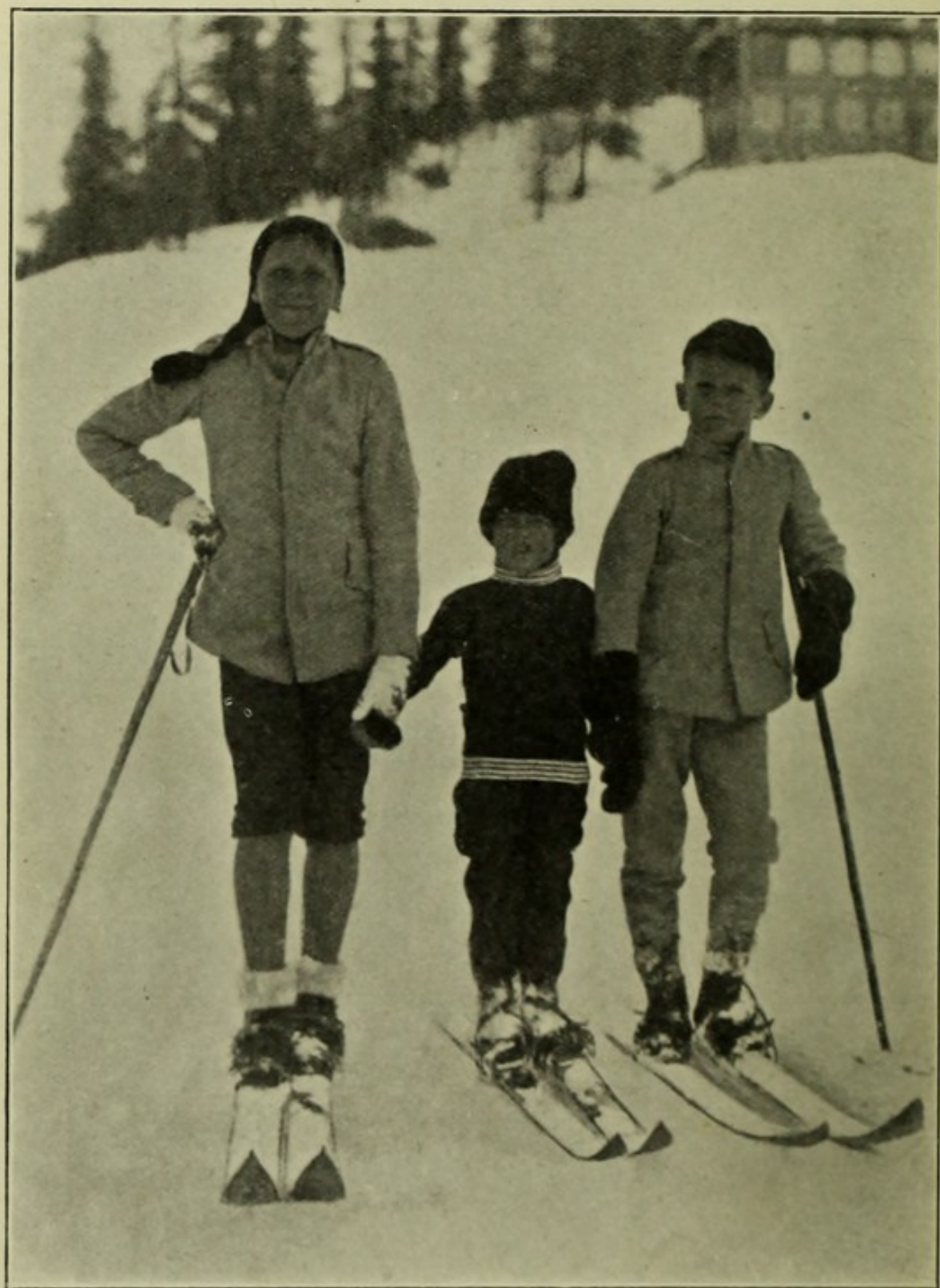
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MY SYSTEM FOR CHILDREN







LIEUTENANT MÜLLER'S SONS ON SKIS.

IB.

BROR.

PER.

MY SYSTEM

FOR

CHILDREN

BY
J. P. MÜLLER

(EX-LIEUTENANT ROYAL DANISH ENGINEERS).
AUTHOR OF "MY SYSTEM," "MY SYSTEM FOR LADIES,"
"THE FRESH AIR BOOK," ETC.

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TO MY SONS,

IB, PER, AND BROR,

WITH MY BEST THANKS FOR THEIR

HELP IN PREPARING

THIS VOLUME.

PUBLISHERS' NOTICE.

THE present volume is an adaptation by the Author to the requirements of children of his world-famous "System" of Home Exercise without Apparatus.

The original work, "My System," intended for the use of adults, has been translated from the Danish into no fewer than sixteen other languages, and has achieved the extraordinary sale of 600,000 copies, whilst the more recent companion volume, "My System for Ladies," has met with a correspondingly enthusiastic reception.

"My System for Children," however, has been prepared, not alone because of the encouraging welcome accorded to the earlier works, but in response to a very large number of direct requests from parents who have themselves adopted the practice of the Müller System.

The formulation of the Exercises for Children, as readers will observe, is not based upon mere theory. It is the actual and proved result of experience by the Author in the case of his own children, as well as of those of other parents who have had confidence in Lieut. Müller's sound and careful judgment, and have appreciated his painstaking and scientific labours of many years in the domain of physical culture.

To some who are not themselves familiar with "My System" the length of the descriptions and the abundance of the illustrations of the exercises may at first suggest that they are of a complicated or lengthy nature; this impression will, however, speedily disappear upon further perusal of the work, and the reader will appreciate the clearness and precision of the instructions and the helpfulness of the illustrations.

Further, on page 21 the Author gives precise instructions to beginners as to the *gradual* acquirement of the various movements, the sequence of which is so arranged as at the same time to accustom the child to the daily manipulation and to secure dexterity on the part of the operator.

THE AUTHOR'S PREFACE.

IN the original book "My System" (Danish Edition 1904, English Edition 1905) there are two short chapters containing remarks on the application of my System to the case of infants and older children. In those chapters I described very briefly some of the movements and the massage to which I used to subject my own boys before they were old enough to perform the exercises of "My System" of their own accord, which, by-the-bye, they were able to do sooner than one would have thought. *Ib* (my eldest son) could do all the exercises in the medium degree, as prescribed for adults, before he was five years old; and *Per*, who enjoyed them still more, could do them very easily at the same age even in their severest degree.

Notwithstanding the inadequacy of the directions given in "My System," many parents have followed them with great benefit to their children, as is proved by the numerous letters of appreciation and thanks which I have received during the last six years. But several of these parents have urged me, at the same time, to give further details, with more illustrations, of these exercises for infants. By means of this present book I hope to accommodate all such wishes.

The first part of the book contains a complete "System" of physical culture for children from birth upwards until the fourth or fifth year. This consists, as does the System for adults, of eight muscular exercises of different degrees of severity in accordance with the age of the infant. These are followed by the bath and by the ten massage exercises. The principal aim and effect of each separate exercise are similar, on the whole, to those of the corresponding exercise in "My System" for adults. Every parent who has studied that book will, therefore, soon be able to commit to memory all the particulars of My System for Children. And further, the number of repetitions of the movements is arranged in such a manner that there will be hardly any trouble in recollecting the details.

The latter part of the book is intended for older children, who can commence to do my exercises in the same manner as their parents.

That this is quite possible is proved by numerous photographs, which I hope will act as powerful incentives to the children. Speaking generally, I think it will be easier to teach My System, as intended for adults, to children from four to five years of age than to children of twice that age, because, if unpractised, these older children will find it more difficult to exercise their relatively heavier limbs and bodies exactly as required.

Girls may be taught from my Ladies' book—not by theoretical explanations, of course, but by the mother's example—as early as the fifth year; or they may, if that be preferred, be treated physically precisely in the same way as the boys until their figures begin to mature.

* * * * *

This book has not been translated from the Danish, but is written by myself in the English language. It is hardly necessary to say that the diction has been corrected and improved by my good friend, Mr. Ernest Gunton, to whom my publishers entrusted this work. I take this opportunity of tendering to him my most cordial thanks.

J. P. MÜLLER.

ST. MORITZ,
SWITZERLAND.

June, 1912.

Lieutenant Müller gives periodical demonstrations in England of his System.

No charge is made for admission.

Readers of this book desirous of attending one of these demonstrations should send their names to the Publishers, Ewart, Seymour & Co., Ltd., 12, Purleigh Street, Strand, W.C., and particulars will in due course be forwarded to them.

Any letters intended for Lieutenant Müller should be addressed in the same way.

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"MY SYSTEM" FOR CHILDREN

Concerning what I have already Written on
Exercising Children.

I BEG leave to commence this book by quoting the very same words of the old doctor with which I concluded "My System":
"All the strength and intelligence of the race are evolved from the bodily health of the child."

I do not think I could find a motto better suited for my new children's book.

Further, I should like to reprint a few sentences from the chapters on children contained in the original edition of "My System" for adults, and which will be omitted in all future editions of that book:—

"A rubbing of the body all over after the daily bath is an exceedingly good thing, even for babies; and they are uncommonly fond of it. They crow with delight when you knead their little limbs and stomachs (if the skin of the palms be hard, rub with the lower part of the arm). Of course they cannot perform the exercises themselves, but when they are lying on their backs you can make them go through many movements which will both amuse them and develop them physically. . . . A baby grows bow-legged, not from using its legs and receiving massage, but from standing too long at a time.

"The principal rule to be observed in all gymnastics for infants is to perform the movements gently and carefully; and, preferably, to do a few introductory half or quarter movements, so that the child is at any rate physically prepared for what is to follow. Then you need not be afraid of fractures or strains.

"The bath, rubbing and gymnastics of my two boys take my

wife or me about half an hour in all every evening. That is only one-third or one-quarter of the time that most fathers of families spend over their pipes and their newspapers. Yet it is an incomparably more important thing to lay the foundations of health in one's children.

"For older children all kinds of games, especially open-air games, are the best physical exercise. It is not well to tax their brains and nerves by compelling them to understand explanations of how gymnastic exercises are to be performed. But if you let them watch while you are doing them yourself, their imitative faculty will lead them to attempt something similar in their turn. You can then encourage them and direct their attempts. The exercises in themselves will be immensely good for them.

"Many parents—mothers especially—will assuredly cross themselves and vow that the treatment I am recommending for children will kill them. I, on the other hand, think that indolence, stupidity, ignorance or mistaken tenderness renders many parents actually criminal towards their children, while the mode of procedure I advocate will really give them vital force.

"That by far the greater number of children are absolutely stunted in comparison with what they might have become had they been brought up upon a plan conformable to Nature, is perhaps most clearly demonstrated by the tables of the general weight, height, and chest measurements of children of various ages which have been drawn up by the Danish Medical Union. It is quite possible that the figures are correct, but in that case, that people may not be lulled into a sense of false security, it should be added that the result is uncommonly poor, and both ought to be and might be very much better. At the age of 12 to 13 years, for instance, the average chest measurement is estimated to be from $21\frac{5}{8}$ to $27\frac{1}{2}$ inches. My eighteen-months-old boy *Per* measures $23\frac{5}{8}$ inches, and *Ib*, my $5\frac{1}{2}$ -years-old son, $28\frac{3}{8}$ inches round the chest. Both boys weighed from 9 to 10 lbs. when they were born, and they are quite normal in their development, as far from being thin as they are from that unhealthy fatness the foundation of which is often laid when children are exclusively fed by hand. It is the development of the lungs, muscles, and bones that you want to encourage in children, whether girls or boys, not that of the cheeks, of the head, or of fat."

Time has shown that I was right, both as to what people would say about my treatment, and concerning the real health-giving

qualities of this treatment. Even during the first year after the appearance of "My System," it was reported in all parts of Denmark that I had killed my own children by too much exercising or by "hardening" them. Even prominent professors of the University of Copenhagen took part in the spreading of these false rumours, notwithstanding that all that was necessary to obtain information as to the truth was to have telephoned to those about me. During the past seven years people all over the Continent have never grown weary of relating the tragic fate of my poor boys. Even now I am constantly receiving pathetic letters of condolence because *Ib* is supposed to have died of physical over-exertion, or *Per* of pneumonia.

Regarding the real state of health and strength possessed by my boys, I need only refer readers to the photographs recently taken of them which are contained in this volume. I have visited many and various countries, but I have never seen such well-developed children of corresponding age. The exceptional health and physique of my boys form, I think, the very best proof of the truth of my contention, that the mode of procedure I advocated for children would really give them vital force.

Further General Remarks on Physical Culture for Children.

My third boy, *Bror*, who will soon be completing his second year, is so fond of exercising that he cannot see me without running towards me, crying, "Dik, Dik!" which in his language means "gymnastics." He always wants me to go through the movements with him. His favourite exercise is No. 7, even in its severest degree (Fig. 34), and long before reaching that number he does not cease crying, "Arme, Arme!" because he wants to stretch his arms out like wings. I think he feels as if he were flying when in this position without the slightest support from my hands. Is he perhaps instinctively attracted by the most modern manly sport, aeronautics? Is he destined to become an aviator? For the rest, this exercise is a most excellent one for developing the muscles of the back and strengthening the dorsal vertebræ. Will he have an especially strong spine when grown up? Nothing could please me better! Men with a good spinal cord are rather rare in my

dear old Denmark; and in certain other countries as well, for the matter of that.

The entire race has lost that early instinct of self-development and self-training so essential to its highest welfare. We ought therefore by all means to try to establish it again. We ought to congratulate ourselves that children generally have a very great faculty for acquiring physical habits of any kind. When formed in the earliest years they are of a most tenacious character, and they become more and more fixed during the period of growth.

The main care of parents ought therefore to be that the physical habits which our children acquire be as good and healthy as possible. Hence the importance of guiding the baby, so that by a careful training, correct modes of breathing, of standing and walking, and of performing every conscious muscular function, may be learned.

This, as a matter of course, will then be followed by correct "habits" of all the unconscious functions of the body, such as the pulsation of the heart, the digestion and the secretions.

I am therefore sure that the earlier the "habit" of not being able to do without the "fifteen minutes' work a day for health's sake" is established, the better for the physical and moral welfare of the future race.

We very often hear nowadays of children suffering not only from all the so-called childhood's maladies, but also from various ailments which we formerly believed belonged only to a mature age or the sedentary life of elderly people. I have even heard of babies suffering from phlebitis, or of being operated upon for *appendicitis*!

It is beyond all doubt that the debility of childhood very often is due to insufficient exercise. The chief aim of the little System I have composed for children is therefore to fortify the two main avenues through which most ailments are likely to advance to the attack. Half of them come, popularly speaking, from outside, commencing with or excited by a cold. This big group of diseases may be guarded against by exercising the skin, developing the lungs, and strengthening the heart, all of which is attained by the air and water baths, the massage, and the breathing exercises of the System.

The other half attack from inside, being hatched in a debilitated stomach, slow intestines, a sluggish liver, overworked kidneys, or elsewhere in the organs of a feeble body. All these organs are strengthened and made insusceptible to disease by means of the eight exercises before the bath. I have given them the name of

"muscular exercises," only because their first and most conspicuous effect is the development of the muscles surrounding the above-named internal organs.

But these eight exercises have at the same time other valuable effects: The body becomes perfectly and symmetrically formed. All those physical deformities, evidence of which can easily be noticed among little children at any board school, will be prevented. You need not fear that your children, exercised as I prescribe, will get curved spines, round or oblique shoulders, contracted chests, bandy legs, or imperfect muscles. Their bearing will become graceful, their gait free, easy, and energetic. Such good qualities are not always the result of evolution, but of early training and proper physical culture in childhood. On the other hand, having improved the individual, Nature's capacity for reproduction according to pattern comes in and allows the next generation to start on a better basis, the result being ever the same, as far as physical culture is concerned—viz., to improve whatever physical condition exists; and so—Excelsior! The sooner in the life-history of the individual cultivation is begun, the more highly developed and perfect the pattern will be, reproduction bringing it just that much nearer perfection.

The best results are to be obtained during the very earliest days of childhood. It is in this plastic period that the form is most easily moulded. It is at this early period of life that the weal or woe of the infant's future rests entirely in the hands of its parents. If you, my dear parents, wish to do it, it will be possible for you to fortify your infants' physique to such a degree that later on your children will be able to stand without harm the tendencies of almost every school to make physical wrecks of them. Such, at any rate, is the Continental state of affairs in this respect. Although the child may possibly be fairly healthy while still at home, yet so soon as it has been attending school for some time it begins to develop all sorts of ailments.

And please remember, firstly, that the exercising and massage of your child is also a very healthy exercise for yourself; and, secondly, that the whole extra work I ask of you will at most last only eight minutes a day. Even in the severest degree, and with the full number of repetitions, the eight muscular exercises with breathing pauses will take only five minutes; and the massage can easily be done as described in three minutes. Of course, I presuppose that the bath is already being given, and therefore represents no extra work.

The physical treatment of boys and girls may be exactly the same through the whole period of infancy. On the other hand, it will be only quite natural if a little girl of four or five, who is trained by her mother or elder sister, imitates the movements as prescribed in my book for ladies. As you know, there is only a very slight difference between my exercises for men and those for women. The whole question, therefore, concerning a girl's physical training up to the age of ten or even twelve is for the most part only a question of taste.

SECTION I.

“MY SYSTEM”

APPLIED TO

BABIES AND INFANTS UNDER FOUR YEARS.

General Rules for Exercising Babies.

The first author who indicated gymnastics for babies, even for three weeks' sucklings, was, as far as I know, the British doctor, *Mr. Harding H. Tomkins*. I have not adopted any of his excellent exercises here in my *Children's Book*, for the simple reason that I believe my own are still better. But his theories are in all respects excellent, and I have taken the liberty to use some of his general hints. I take this opportunity of adjudging to him the honour of having first invented and introduced special exercises for babies.

While doing the exercises, it is a good plan to talk to and laugh at the baby, counting aloud to some tune if possible, or even singing “See-saw, Margery Daw,” or some little tune in which the time is well marked. This will both attract its attention and, in the majority of cases, assist in keeping the movements rhythmical. It is not advisable at first to persist in the exercises throughout the entire course at each “sitting”; it would be better to choose a time when the baby is awake, not too hungry, and only lightly attired. Let it lie on its back and go through a few of the exercises, continuing the series the next time it is awake and playful, repeating them whenever opportunity occurs. The limbs and the body must be very gradually conducted through the required positions. The slight resistance which is certain to be shown at first causes a certain amount of traction on the muscles by the operator, and this constitutes the work done, which helps to develop the muscles and expand the chest. Before long the child will “join in the fun” with relish, if the exercising be properly done. Any sudden pull will be resented, however. Tact must be used to make the child think it is doing what it wants. Babies about four or five weeks old will generally grasp eagerly at your thumbs or fingers and “see

the fun of it." More patience is, however, often required if a commencement is deferred until the infant is older, say from two to three months, for then the child's mind is likely to be diverted by other things, such as some trinket worn by the operator, and it will cease grasping the fingers to clutch at what it sees. When the baby is old enough to understand a little, you will easily be able to interest it by praising it for its cleverness.

In order to illustrate how most of the easy degrees of the exercises may be carried out, reproductions of actual photographs of a baby are given. He was three months old when these photographs were taken. His parents had done the massage and some of the muscular exercises with him from the time of his birth, which, by the bye, was very easy and lasted only half an hour, because his mother had performed "My System" until the very last day, of course with caution.

The more severe degrees are illustrated with photographs of my third son, Eugen Jörgen *Bror* Chatelain Müller. The photographs were taken during the last four months of his second year.

The first degrees of the muscular exercises, and of the massage as well, are best performed while the babe is lying on a little mattress upon a table. During the first months, when the neck is not yet strong enough to carry the head, you must always put a little pillow below the head, each time the baby is laid on its side or flat on its stomach.

The massage must, of course, be performed while the child is quite naked. Therefore, the best time for this is immediately after the baby has been dried after the bath. If, during the first months, when the desquamation of waste matter of the skin is very liberal, the baby gets a bath twice a day, it is a good plan to divide the massage into two corresponding halves.

The little one should never be enticed to sit up until the spine has become strong enough to support the trunk of the body upright. At first it can do this for only a short time, when it will become tired. If the little one has been left unrestrained and free from any fetters in the shape of either bands or pillow props, it will roll gently over on its side and enjoy itself in its own way. But if it is strapped up in a high chair or carriage, or is propped up with pillows so that it cannot lie down, the enfeebled spine becomes too tired to hold it up, and it will fall forward over the obstruction, whatever it may be, in a most uncomfortable position. On the other hand, a baby who has been exercised from about the fourth week of its existence will, of course, be able to sit up without any

strain during the various exercises much earlier than would be possible for children who have not been exercised at all.

Remember never to go through the performances immediately before or after a meal, as the effort uses up the energy required for digestion.

Before trying to perform any of the exercises, it is advisable to read the entire book through attentively. And I earnestly warn readers against exercising a baby after having only glanced at the illustrations, and without having carefully studied the explanations in the text. Any carelessness such as this may result in great harm being done to the child.

There is no reason for alarm at the number of precautionary measures I advise. These are all quite natural and obvious if you will only use your common sense.

Special Note to Parents Unacquainted with "My System."

Readers having no practical acquaintance with "My System" for adults may possibly, on a first cursory perusal of the book, become frightened at the apparently large amount of complex work here imposed upon them. The magnitude and complexity are, however, more apparent than real. For the first weeks of the baby's life there is only a question of the massage, which at first consists of just a few simple rubbings. (See further in the chapter on "Massage, or the Ten Rubbing Exercises.") By and by, when you have learned the various exercises, there will be more method in the massage, so that at last the whole surface of the body will be rubbed, both lengthwise and crosswise.

First you should learn to do Exercises Nos. 11 (18) and 16. A few days later you may add Nos. 10 and 15; after some time Nos. 12 and 13; then No. 14, and at last Nos. 9 and 17. When you are able to perform all ten rubbing exercises you should, of course, adhere to the prescribed order of sequence.

With regard to the other exercises, when the child is from 1 to 2 months old, you may start the deep breathing and some of the muscular exercises—these latter, of course, in the easiest degree. Commence by learning to do the "Straightening of the body," which is preliminary to Exercise No. 1, followed by No. 3, and the first method of deep breathing. Some time after this you may learn Nos. 1, 2 and 6. Again, after some time, you may add the preliminary movements of Nos. 7 and 8, and the second method of deep breathing. Only start Exercises 4 and 5 some months later, when the child can sit up.

As previously pointed out, when you have become expert in the performance of the eight muscular exercises, it will take you only five minutes to go through them all, with the prescribed number of repetitions, and including the appropriate breathing pauses. Nevertheless, there will possibly be parents who believe themselves to be so busy that they cannot spare time to perform them all. There are, however, two of these exercises which should never be omitted, viz., Nos. 3 and 7. It is necessary to perform No. 3 daily, for the purpose of keeping the child's digestion in order, and No. 7 ought also to be performed as a complement of No. 3 (exercising as it does a corresponding group of muscles), for the sake of securing the child a good carriage of body.

Before treating the baby, it would be a good plan to practise the various movements with a big doll.

At any rate, do not forget that excessive coddling of children, even of sucklings, is productive of greater injury than a little too much exercise.

"Slow and sure" should be the motto, "thorough" should be the method, with systematic perseverance, if the goal of physical competence is to be attained. Spasmodic, violent, or long-continued exercises are not only useless, but likely to be followed by dire results; and the reason why so many people decry such exercises is that they expect to do a great deal in a very short time, thinking that the more energy displayed in a short period, the greater the probability of producing quick results, whereas Nature has to grow the muscles and to increase the size of the blood-vessels, and enlarge the heart, lungs, etc., to meet the extra work required. *And Nature will not be hurried!*

THE BREATHING EXERCISES.

The well-known doctor *J. H. Kellogg* writes in an article on the physical training of children that one of the special objects of exercises for children should be the development of the chest. "In children the cartilages are flexible, and the costal articulations of the spine have free mobility, so that when the child takes exercise and increases the activity of his respiratory movements, the result is an enlargement of the chest. Forcible respiration in the child means a respiration fuller than the ordinary. It means expansion of the chest, a stretching of all the joints and cartilages connected with the ribs. . . . Think what a gain it would be for children to take exercises which would create a demand for air, and by daily expansion cause the chest to grow deep and large and broad, thus providing a capital of strength for future years!"

It is of the utmost importance that the lungs should be as fully developed as possible at the earliest possible period of life, as every organ will participate in the benefits derived from the supply of a large quantity of well-oxygenated blood produced by such good lungs. It is just this very development that muscular and breathing

exercises can provide at the very earliest period of infancy, long before conscious effort can be made by the "pupil," and the heart and muscles will develop in proportion. The exercises and the deep breathing cause more rapid and stronger pulsations, which provide the heart itself with purified blood, to its own improvement and strengthening. And this increased supply of pure blood, with the corresponding removal of impure blood, stimulate every part of the entire body to increased activity, which, in infants, is the same thing as stimulating to increased growth. This growth is by no means restricted to the muscular system and bony frame—far from it. The internal organs, nerves and brain, of course, participate in the extra blood supply, and are stimulated to healthier and more rapid action. And so the process of growth and development in the child is hastened in every way.

It remains then a proved fact, that even at the very earliest period of infancy exercise must of necessity help in the development of muscles and organs, and in addition, what is still more important, tend towards producing sound and healthy constitutions, improved mental capacity and activity, and so greater self-control, self-reliance, and healthful influence upon the moral side of our natures as well.

Now, as for putting the thing in practice, it is a matter of course that infants under three or four years are generally unable to take deep respirations deliberately or even voluntarily. But, on the other hand, it is quite possible, firstly, to compel them to breathe more deeply than they can do by their own control; secondly, to develop the elasticity of the chest; and thirdly, to strengthen the muscles by means of which the ribs are moved and the chest expanded. The first and the second of these advantages can be achieved by the two special methods of deep breathing I will now indicate, and the third object is attained by means of the muscular exercises described in a future chapter.

After each of the eight muscular exercises a period of about 10 seconds ought to be spent in these breathing exercises. But while adults in each breathing pause of 12 seconds, as prescribed in "My System," could perform two very deep, or three fairly deep respirations, the infant must, during its 10 seconds, take many more. Even when lying quietly on its back a new-born child will, during 10 seconds, take about seven respirations.

Both the first and the second methods can be applied to children of five weeks old, but only the second method will then act as a real breathing exercise. The first method will not, because it cannot be performed quickly enough—at all events, not without scamping the movements or incurring the risk of straining the little limbs. But even if the real respirations do not for a few months follow the time of the movements of the first method, they will nevertheless be very useful for making the chest strong and elastic, and should, therefore, not be omitted. At all events, these exercises will make the child insusceptible to consumption of the lungs.

The First Method (The Silvester Method).

COSTAL BREATHING.

Lay the infant face upwards on the mattress, place yourself at its head and take hold of its arms just round the elbows, whereby it will be possible for you to keep them straightened the whole time during the following movements :—

The little arms should be brought steadily downwards beyond the head until they are in line with the rest of the body, as shown in Fig. 1. This raises the ribs and expands the chest, thereby allowing the air to enter. The arms should be kept in this position only for a moment, after which they are again carried upward and, without any pause, brought down vertically on to the chest, where they must be pressed (really, the hands of the operator) against the ribs, also for a moment only. This pressure must, of course, be very gentle to commence with, and it must be exercised in an oblique direction, so as to act partly against the sides and partly against the front of the little chest (see Fig. 2). This produces an expiration, expelling the used-up air from the lungs.

The arms are now carried back again, that is, upwards vertically, and then down to the position of Fig. 1, effecting for the second time a forced inhalation, after which they are swung forward once more, and pressed against the ribs, producing a second forced exhalation. And so on alternately.

This double movement, or breathing exercise, should be repeated four times during the 10 seconds until the infant is three years old ; and after that age three times during the same period. When the child has reached the age of four or five years, it can begin to breathe deeper voluntarily, and will, by and by, be able to understand your instructions.

As perhaps you will perceive, the principle of this exercise is the same as that in the method of artificial respiration invented by *Dr. Silvester* for resuscitation purposes. By omitting the bending of the arms of the pupil I have adapted it for infants. When the child is older, say two years, you may very well increase the efficacy of the inhalation by putting a little pillow under the shoulder-blades.



Fig. 1.

THE SILVESTER METHOD.



Fig. 2.



Fig. 3.

THE SCHÄFER METHOD.

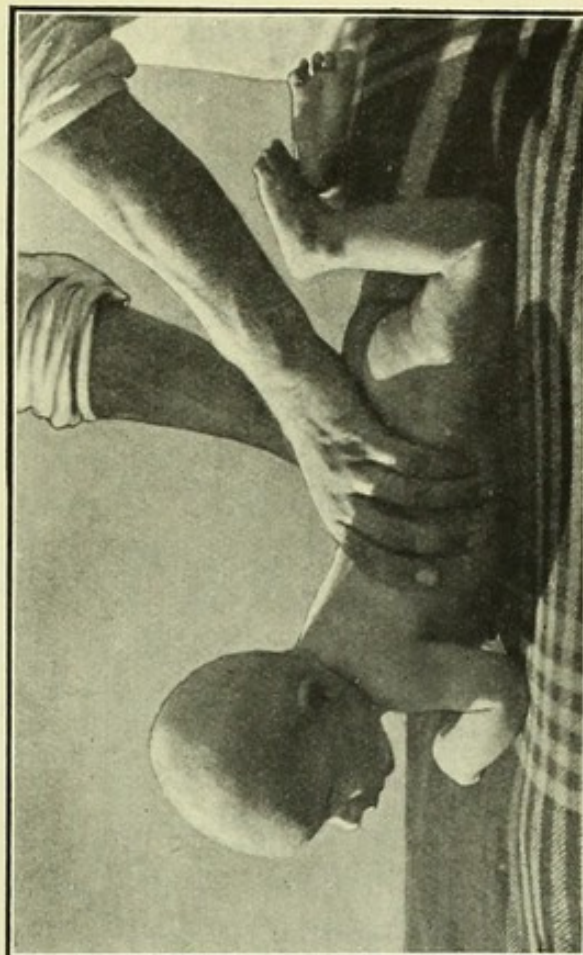


Fig. 4.

The Second Method (The Schäfer Method).

ABDOMINAL BREATHING.

Lay the infant on its stomach, the head turned sideways and resting on a little pillow. Place your palms on the lower part of its back, the thumbs touching one another, and the other fingers spread out upon the sides of the little body (see Fig. 3). Now press downwards and inwards for a short moment, very gently of course to begin with. Then relax the pressure without taking the hands away from the body. Then press once more and relax the pressure again, and so on alternately, the palms resting the whole time in the same position. If the baby is very little and your hands big, you should press with one hand only (see Fig. 4). You should in the beginning, when the baby is only five weeks old, repeat the pressure six¹ times during every breathing pause of 10 seconds. But you should diminish the number to five times when the infant is one year, to four times when two years, and to three times when three years old.

A healthy, strong, and practised infant will, when about two years old, enjoy a rather severe pressure. And then you may, in order not to tire your own arms too much, put a part of your own weight into the downward pressure, keeping your arms straightened.

This exercise is on the same principle as *Dr. Schäfer's* new method of artificial respiration. It is mainly the diaphragm, the large, flat, horizontal breathing muscle, which is hereby developed.

In ordinary respirations a quantity of air always remains behind after exhaling, but it is a good thing to change as much of this as possible by forced expiration. If practised in the above-described manner, it will by and by come natural to the child to breathe deeply, and avoid holding its breath when practising forced muscular exercises (heavy weight-lifting, for instance), a matter of great importance to the heart.

The child as early as possible—at any rate, when about five years old—ought to learn to keep its lips closed during the deep breathing, so that the breath is inhaled and exhaled only through the nostrils. Moreover, it is quite wrong to inhale through the nose and exhale through the mouth (this matter is more fully explained in my *Ladies' book*).

Whenever you see your child sleeping with its mouth wide open, you ought to close its lips gently, which can be done without waking it. If it cannot get air enough through the nose only, it should be operated upon, as there may be obstructions in the shape of adenoid growths.

¹ This is once less than usual, in order to establish a tendency to deeper breathing.

THE EIGHT MUSCULAR EXERCISES.

Although these should be started only when the bath and the rubbing exercises have already been used for several weeks, I will nevertheless describe them here before the others, because the proper order of the exercises later on will be as follows:—1, Muscular exercises; 2, Bath and Drying; and 3, Rubbing exercises. But if it be more convenient to you, you may give the bath first, then the massage, and lastly, when the infant is again dressed, the muscular exercises. But in this case you must take the infant directly from the warm bed and undress it very quickly, because it must be quite warm when put into the bath. The same mode of procedure may be used even when the temperature is low, for elder babes and infants who are not put into a warm bed again immediately after the exercising, but are allowed to crawl or run about. In very hot weather the infant may be naked during all the exercises, which then should be performed in the following order: Nos. 11, 10, 1, 12, 2, 13, 3, 14, 4, 15, 5, 16, 6, 17, 7, 18, 8, bath and drying, No. 9. After each muscular exercise the breathing pause apportioned to it should be given. If you have a sun-bathing place, a convenient place in the garden, on the verandah or on the roof, you may carry the infant out there and go through the whole System in the open air. If you are not so lucky, you can at all events bring the infant near the window, so that the rays of the sun may reach it. When there is no wind, the windows must be thrown wide open, a draught being produced if they are left merely ajar. For information concerning sun and air bathing generally you should read "The Fresh Air Book," published by Messrs. Ewart, Seymour & Co., Ltd., London, price 2s. 6d. I will only remark here that the eyes of the infant must not be directed towards the sun; its head must be kept in the shade during all the exercises in which it is resting on its back.

To commence with, every movement must be repeated once only. Later on the number of repetitions can be increased until the proper number fixed for every single exercise is reached. According to the saying, "Milk for sucklings, strong meat for men," so must everything else be nicely graduated. Almost all the muscular exercises can be done in different degrees of severity. The first degree is always the easiest, and adapted to suit the youngest or unpractised infants; the second is for more grown-up and practised ones, and so on. It is

a general rule not to begin a higher degree until the full number of repetitions of the preceding simpler degree can be performed without strain. A few of the exercises must only be performed, even in their first degree, with babes who are already easily able to sit unsupported in an upright posture.

**EXERCISE No. 1.—Straightening of the body;
then trunk circling.**

Before beginning the exercises proper, the body, shoulders and arms of the infant should be straightened out by lifting the child as shown in Figs. 5 and 6. Any healthy babe of four weeks—sometimes even still younger—will by itself take hold of your forefingers or thumbs and support its whole weight by them, as soon as these are placed within its hands. On the other hand, it may easily happen that even healthy infants of several months or years of age, having never before been exercised, will be unable to do this, because either they have lost this ability, with which they were born, or it has remained undeveloped. In the beginning you must, of course, only lift the babe about 1 inch from the pillow or mattress, and let it hang on to your thumbs or fingers only for a moment. But when the babe has grown stronger, this introductory exercise may last for several seconds and be repeated several times. You may even carry the infant from one place to another in this way, so long as you are always prepared to catch hold of the little hands quickly as soon as you feel their hold is loosening. Now for the exercise proper:—

The first degree.—Take a safe hold of the baby's hands and let its seat rest on the mattress. The moment its hands grasp your fingers, the arms must be pulled gently upwards. Then swing the upper part of the body round (see Fig. 7) in horizontal circles, twice one way, and twice in the opposite direction. In this first degree, of course, only a very slight movement of the waist is performed, because the baby will always move its whole body a little, not resting firmly on its whole seat. The child will, however, soon learn to help, which will strengthen its joints and muscles.

The second degree gives a very fair exercise to all the muscles round the waist. It must not be done until the infant's back is strong enough to keep the upright sitting posture. By means of your right hand the thighs are held firmly down, while the infant must grasp your left fore-finger with its one hand and your long-man

Exercise No. 1.

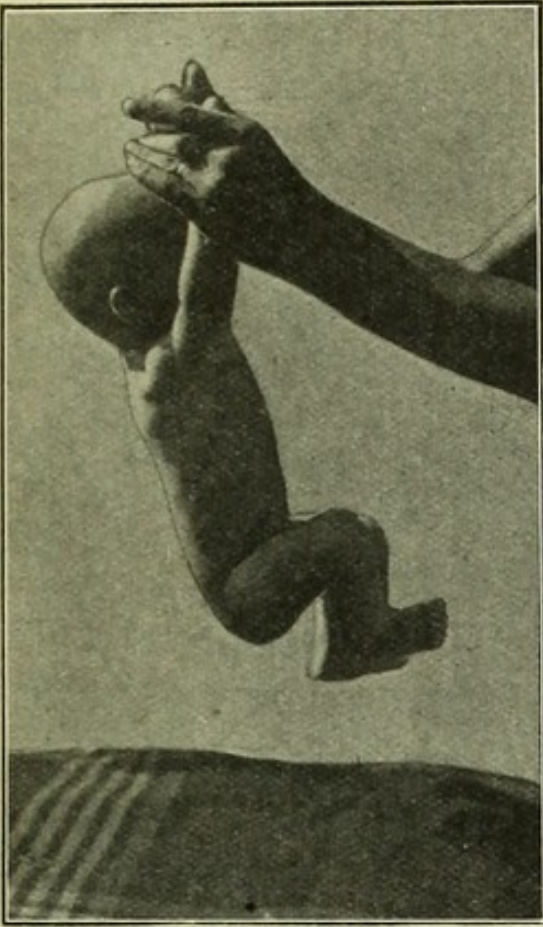


Fig. 5.

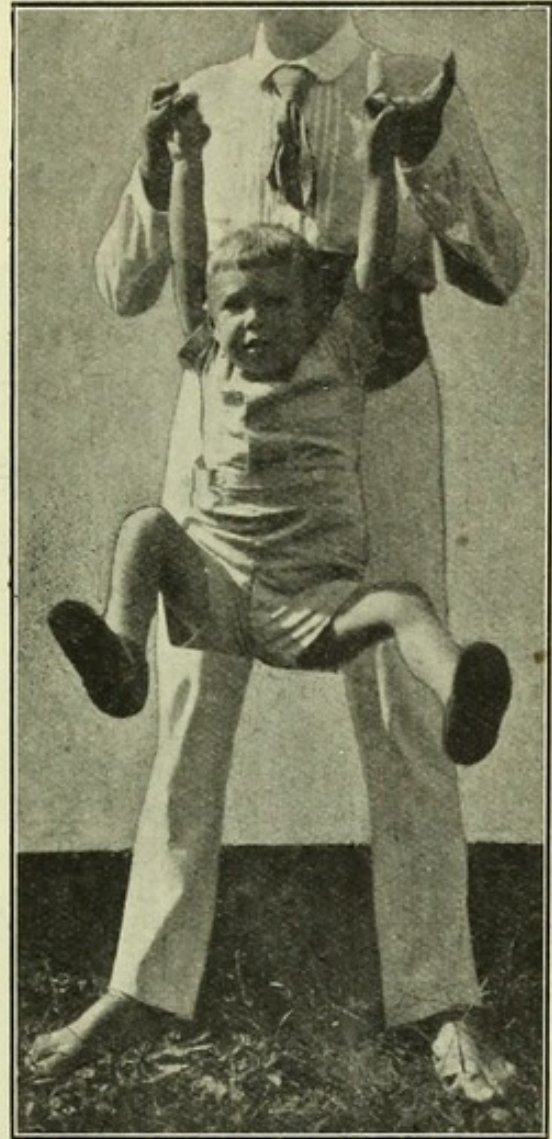


Fig. 6.

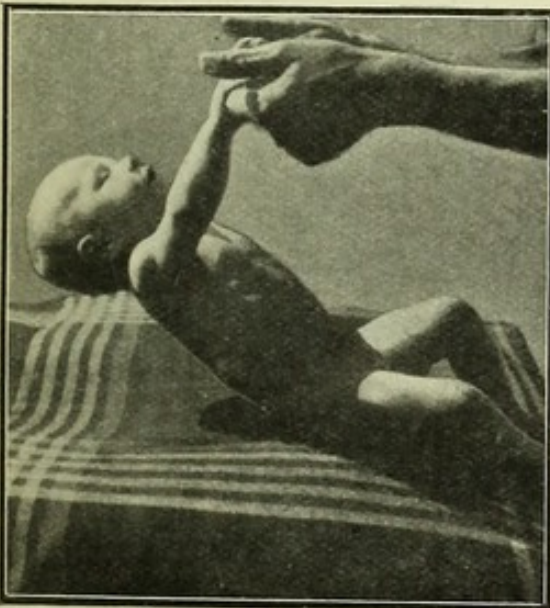


Fig. 7.



Fig. 8.

with the other hand; or you may grasp the one little wrist and let the infant take hold of your outstretched fore-finger with its other hand. And from this position a real trunk circling is now performed (see Figs. 8, 9 and 10), first round one way, then the other way (twice each way). The circles must be as wide as possible, the trunk being swung well forwards, to the one side, backwards, and to

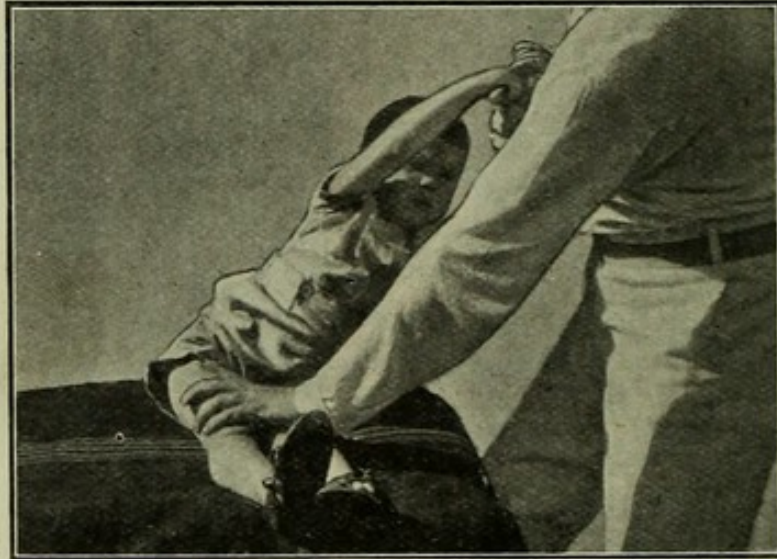


Fig. 9.

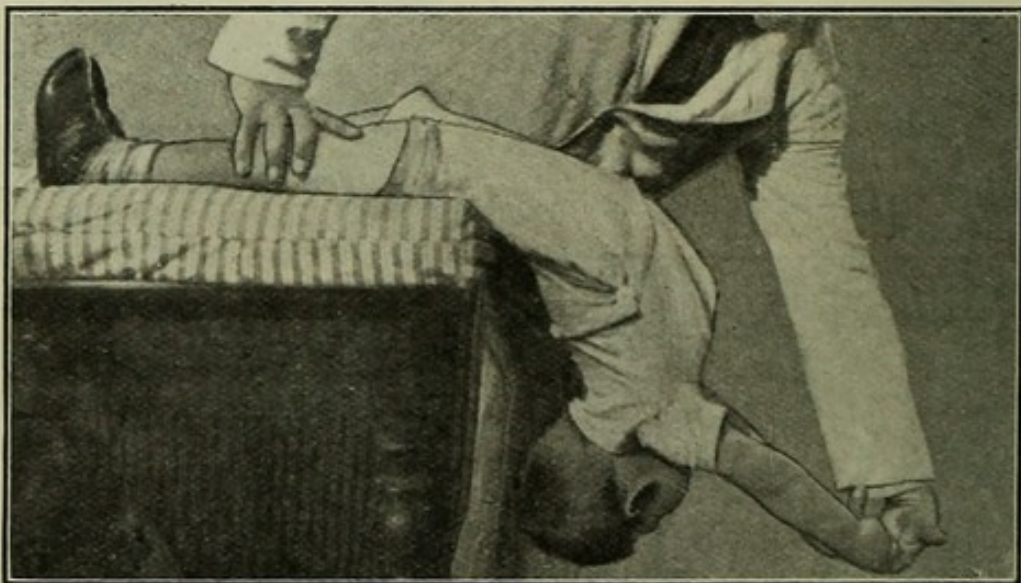


Fig. 10.

the other side, again forwards, and so on. When the infant has grown strong enough, you may place it near the edge of the table, whereby the little trunk can be swung much further backwards or downwards (see Fig. 10).

Breathing Exercise. The First Method.

EXERCISE No. 2.—Leg swinging.

The first degree may be done with healthy children when they are five weeks old. Lay the baby on its back. It will then always kick its small curved legs up in the air. Take a rather firm hold round one knee of the infant with your right hand and round the other knee with your left. By grasping the knees instead of the ankles you will be better able to keep the legs straightened during the whole exercise. Bring the heels down upon the mattress. Then move the legs upwards and as far as possible towards the head, short of using any force whatever, and press the thighs gently against the abdomen. Then back again to the first position, the legs upon the mattress; and so on, alternately, several times, at most four double movements. It is of no use in the exercise to lift the baby's seat up from the mattress.

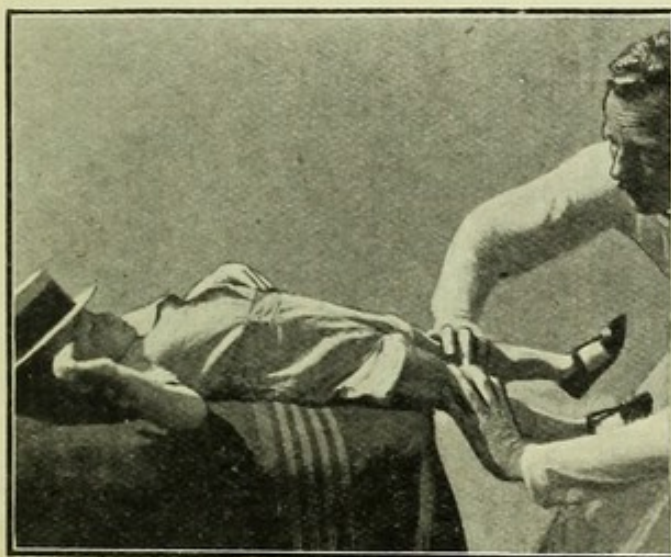


Fig. 11.



Fig. 12.

The second degree.—When the infant has grown stronger, you may lay it with the legs outside the edge of the table, when they can be stretched much further downwards (see Fig. 11). And now you may exercise a fair pressure upon its abdomen (see Fig. 12). The infant will only enjoy it, and it will strengthen the digestive organs.

Breathing Exercise. The First Method.

EXERCISE No. 3.—Trunk raising, face upwards.

The first degree.—Place the infant on the mattress, so that it lies on its back. Take hold of both its hands with your one hand and grasp its knees with your other hand, in order to keep the legs straight and down during the exercise. Now straighten the infant's arms, raise its trunk gently and bring it forward as far as possible, short of using any force, of course (see Fig. 13), after which it is



Fig. 13.



Fig. 14.

immediately brought back again into the recumbent position. Repeat this double movement several times. This degree of No. 3 may very well be performed with babies who are even unable to sit up without support, because the weight of the little body is almost completely supported when you keep it hanging by the straightened arms.

The second degree.—For infants who can sit without support. Take hold only of the one hand, but remember that you must hold the infant's left hand with your right during half the number of repetitions, and its right with your left during the other half, in order to avoid any possible distortion. Of course, you may also hold

the left on one day and the right on the next, and so on alternately. The trunk is now raised into a sitting position, well forward, and again lowered, without the whole weight of it being supported by you. The child may be enticed to raise itself partly by means of the abdominal muscles, and will also soon learn to help itself by pressing its free hand against the mattress or the table flap (see Fig. 14). By-and-by the infant will grow strong enough to



Fig. 15.



Fig. 16.

perform four repetitions. This movement is in the long run much better for the bowels than castor oil.

The third degree.—This is composed almost of the same movements, but the child now lies upon your thighs, whereby it can lean further down behind by hollowing its back (see Fig. 15). When the child has grown taller, it may sit upon one of your thighs only, with its feet underneath your other thigh (see Fig. 16). But remember to change the position in conformity with the description given under the second degree. Consequently the child must sit half the time upon your right thigh, and on your left for the remainder of the time. As the abdominal muscles grow stronger, the child will be able to do the movements almost, if not entirely, by its own exertions. This exercise will ensure the child against any kind of hernia or rupture in later life.

Breathing Exercise. The First Method.

M.S.C.

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EXERCISE No. 4.—Trunk-twisting (with “side-bending”).

The first degree.—For infants who can sit without support. Place the baby in a sitting posture, taking hold of the elbows in order to keep the arms straight the whole time. In this manner you can also move the upper part of its body more easily than if you were to take hold of its hands. Twist the upper part of the body round to the left (see Fig. 17) and then the whole way (correctly speaking half a turn) round to the right (see Fig. 18). Continue to make several such alternate twistings.

The second degree.—When the infant can stand firmly on its own feet, the same twistings are performed in a standing posture (see Fig. 19).

The third degree.—When the infant has grown stronger, you may add the “side-bendings.” Every turn is then followed up by a bending downwards and again raising upwards, performed while the child is in the twisted position (see Fig. 20). The whole of this movement may be performed four times.

Breathing Exercise. The Second Method.

Exercise No. 4.



Fig. 17.



Fig. 18.



Fig. 19.

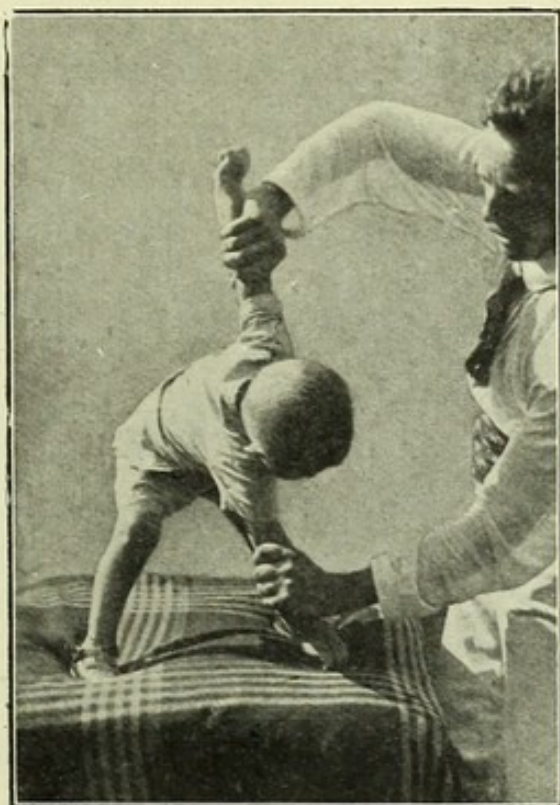


Fig. 20.

EXERCISE No. 5.—Arm-circling, or the “Wind-Mill.”

The first degree.—For infants who can sit without support. Take hold of the little hands, straighten the arms out sideways and swing them round in wide circles. Both arms should be swung the same way round, but whilst one is moving forwards the other must at the same time move backwards (see Figs. 21 and 22). The hands will then always assume positions which are diametrically opposed to each other. Explained in other words, both hands are always travelling round in the same direction, but one of them is always half a turn in advance of the other. Fig. 23 shows how the one arm is down while the other is up. By this method of rotating the arms you will never risk throwing the infant off its balance. If you were to draw both arms behind at once, the infant would, of course, immediately fall backwards; but when using my method it is quite possible by degrees to exercise a fairly strong pull on the arms, in order to make them straight and strong. As may be noticed, I have several exercises for straightening the arms and legs, but not one bending movement of the limbs themselves. Such exercises should have no place in a rational System for infants, who from the time they are born always have a tendency to keep their limbs curved, and nothing is more prejudicial to growth and development than such curved attitudes.

Perform in the manner above described as many as four movements, then stop, and move the arms four times in the opposite direction.

The second degree.—For infants who can stand upright. The arm-circling is performed in exactly the same manner as in the first degree. A short lunge will help the child to stand more firmly on its feet (see Fig. 24) during this “wind-mill.”

Breathing Exercise. The Second Method.

Exercise No. 5.



Fig. 21.

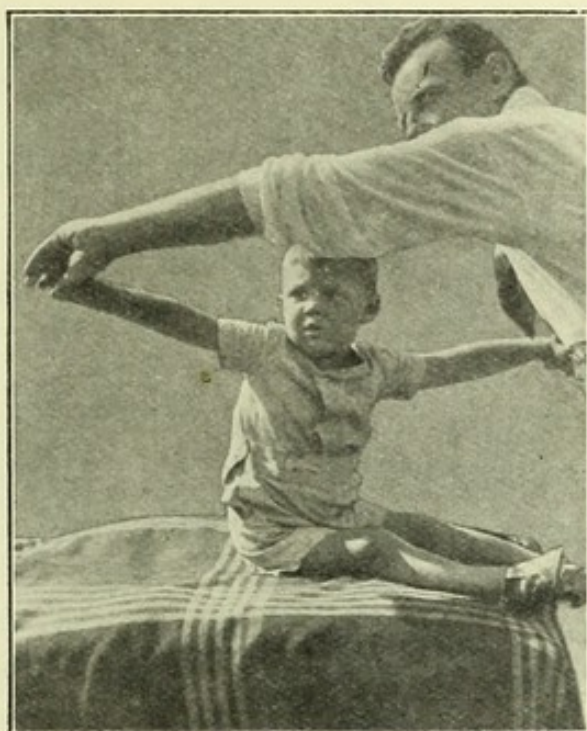


Fig. 22.



Fig. 23.



Fig. 24.

EXERCISE No. 6.—Leg circling.

The first degree may be done with healthy children when five weeks old. Lay the baby on its back. Take hold of its left knee with your right hand and place your left palm lightly on its right thigh in order to keep the leg down (see Fig. 25). Then move the left leg round in as wide circles as possible, short of using any force whatever, once the one way, and once in the opposite direction, after which the other leg is exercised in the same manner. When doing this, you must of course either change your hands about, or place yourself behind the head of the baby. Then $1 \times 2 \times 2$, or 4 circles in all, will have been performed.

The second degree.—When the infant has grown older, you may let it lie quite near the edge of the table, by which the lower half of each circle can be made much larger (see Fig. 26). You may grasp the little foot instead of the knee, and place your other hand on the infant's abdomen, as shown in Figs. 27 and 28. By-and-by you may exercise a fairly strong pull on the leg, performing in all $2 \times 2 \times 2$, or 8 circles.

Breathing Exercise. The First Method.

Exercise No. 6.



Fig. 25.



Fig. 26.



Fig. 27.

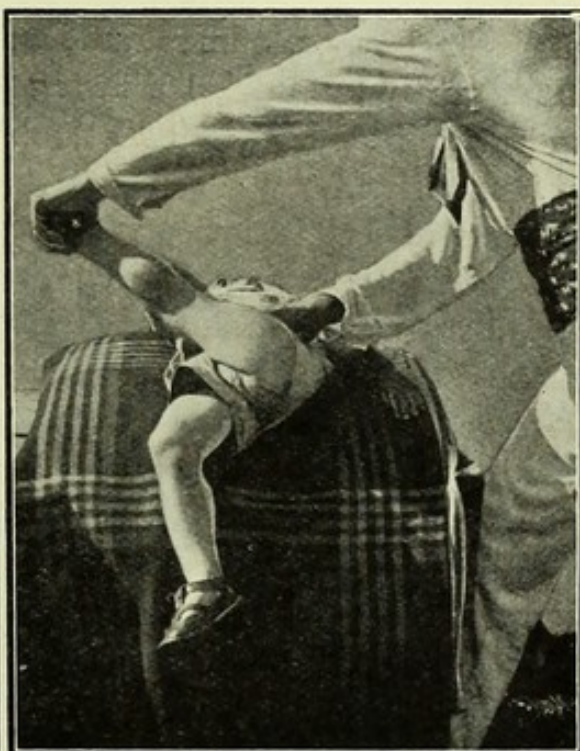


Fig. 28.

EXERCISE No. 7.—“The Swallow,” with trunk raising, face downwards.

The first degree is composed of two preliminary movements to the exercise proper, and may be tried as soon as the infant's neck is strong enough to support the head. Turn the infant round on its stomach, take hold of the flanks gently with your palms, and lift the little body up from the mattress (see Fig. 29). It will soon learn to hollow its back and to raise its head well up; later on also to straighten its arms out sideways and backwards, and its legs behind. Keep it in this position for some seconds, after which lay it down again with a little pillow under its head, in order to make a little rest for the neck. This exercise may be repeated up to three times. The intervals are used to perform the second preliminary movement—viz., to bring the little arms backwards—very gently to commence with (see Fig. 30). After some practice the arms may be made to cross each other.

The second degree.—Place the infant, face downwards, upon your thighs. Supporting the breast with your right hand and keeping the legs in their position with your left, let the trunk sink downwards (see Fig. 31). Then raise the trunk up again to the position shown in Fig. 32. The infant will by-and-by learn to do the movement partly by itself, hollowing the back and throwing the head and arms well back. This double movement may be repeated up to four times.

When the child has grown taller, you may try *the third degree*, in which it should rest upon your right thigh only, with its heels put under your left thigh. It is now the abdomen, not the breast, which is supported to commence with by your right hand (see Fig. 33), but otherwise the movements are the same as in the foregoing degree. The muscles of the back and loins will, later on, however, become so strong that the child will be able to do these trunk raisings altogether by its own exertions, that is, without either breast or abdomen being supported (see Fig. 34). Here it is unnecessary to change about as described under Exercise No. 3, the second and third degrees.

Breathing Exercise. The Second Method.

Exercise No. 7.

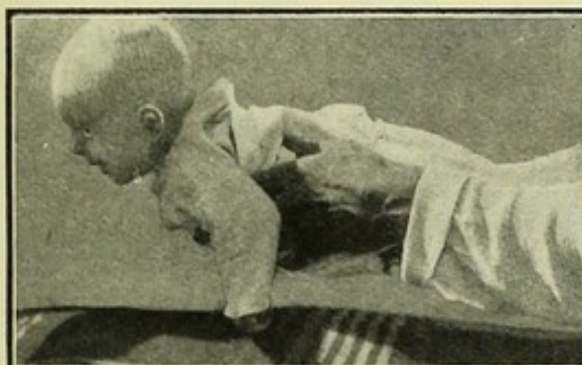


Fig. 29.

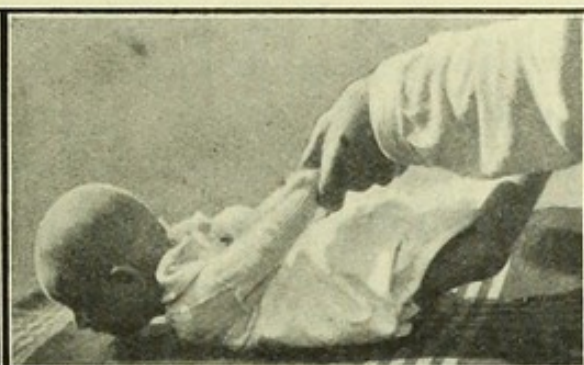


Fig. 30.

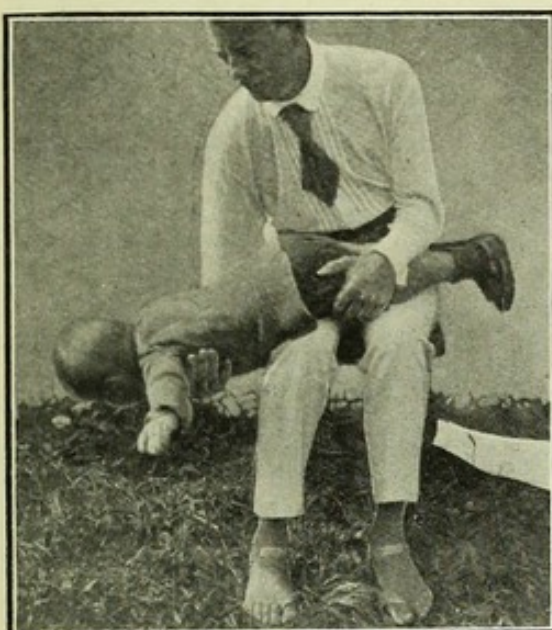


Fig. 31.



Fig. 32.

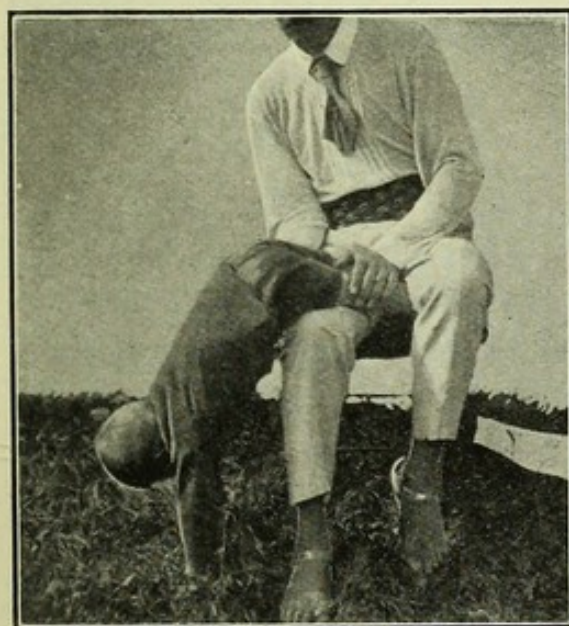


Fig. 33.



Fig. 34.

EXERCISE No. 8.—“The Hand-Barrow,” Walking on Hands, and making “The Bridge.”

The first degree consists also of two preliminary movements, the first of which may be commenced when the baby is five weeks old. Lay it on its stomach and take hold of its legs round the knees, whereby you will be better able to keep them straightened. Then raise the legs and partly the abdomen from the mattress, as shown in Fig. 35. This compels the child to bend or rather hollow its back a little. Of course it must be done in a gentle manner.

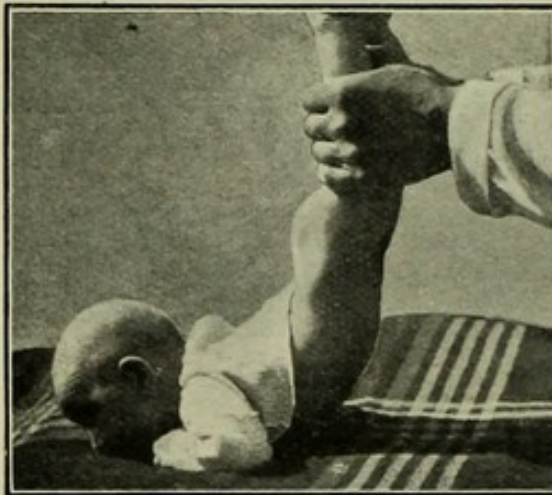


Fig. 35.



Fig. 36.

After a moment the legs must again be lowered and laid down on the mattress. Let the child rest for a few seconds, after which the lower part of the body is raised once more, and again lowered as before. This double movement may be repeated as many as three times. The second preliminary movement should not be attempted until some weeks later. While the infant rests on its back, put your hand underneath the loins and lift the little body, thereby forcing the back to become hollowed (see Fig. 36). Keep it in this position only for a few seconds. Repeat this no more than three times, with intervals of rest.

The second degree ("The Hand-Barrow").—When the infant has become strong enough to support the upper part of its body by means of its arms, you may grasp its ankles or feet, raise them well up in the air, and then draw the body backwards, so that the hands only drag on the mattress (see Fig. 37). Having reached the end of the mattress, turn round and give the child a short rest. Then drag it in the same manner to the opposite end, rest, and repeat the exercise up to three times.

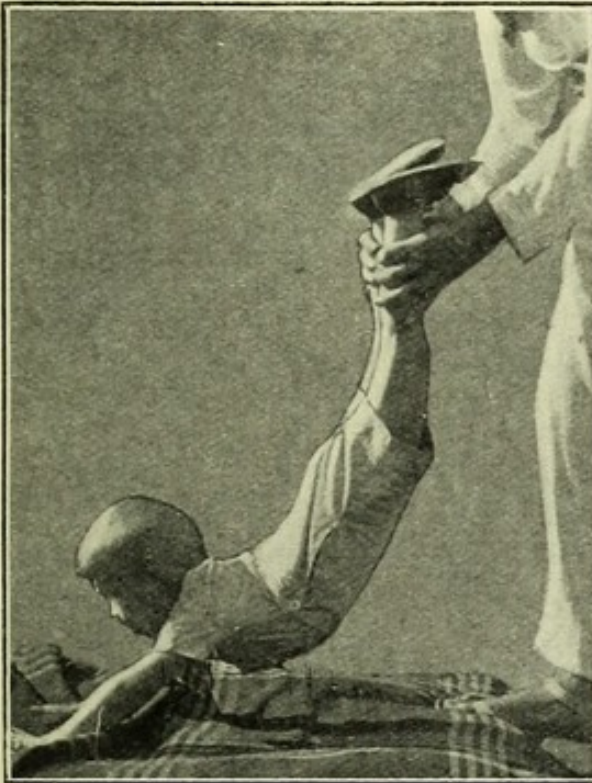


Fig. 37.



Fig. 38.

The third degree ("Walking on Hands" and "The Bridge").—When the child has grown still stronger and is about two years old, it should learn to walk *forwards* on its hands, the head being well raised and the back well hollowed. Now you may take hold just above the knees, which may then be bent. After every five seconds of exercise, you must give the child a short rest, sitting or standing, that is, with head erect. In this manner the exercise may be repeated up to three times. Later on the child should carry its whole weight itself, you merely assisting it to preserve its balance by steadying it with one hand (see Fig. 38).

As soon as the child is strong and supple enough, each walking on the hands should be supplemented by a "Bridge" (see Fig. 39). This is performed simply by turning the body over. At first the child may support itself on its head, hands and feet. Later on only by its hands and feet, or by its head and feet (see Fig. 40).

Breathing Exercise. The Second Method.

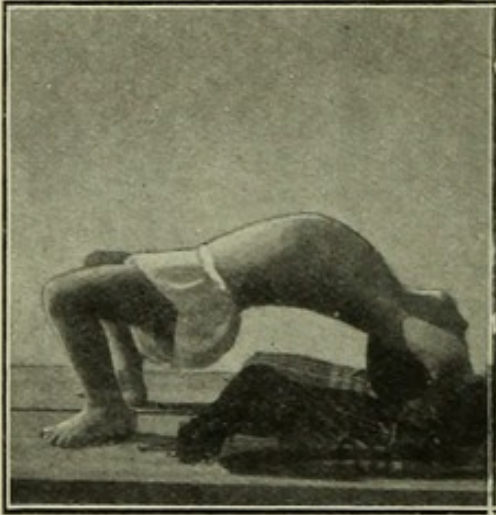


Fig. 39.



Fig. 40.

THE BATH.

I need not say much concerning this. Exercising with babies has been up to the present rather a rarity, which I am for that very reason anxious to teach people; but the bathing of babies is thoroughly known and mastered in every well-arranged British home.

For any other information which may be required, I refer the reader to "My System," in which I have stated that a baby's bath should be from 104° down to 89° Fahr. the first year; and to "The Fresh Air Book," in which I give some rules for bathing in a chapter on the hardening of children (pages 117—121).

THE MASSAGE,

Or the Ten Rubbing Exercises.

The well-known masseur *Mr. Harry Andrews* writes in his excellent book "Massage and Training" the following lines:—"I have said that massage is the most important item of an athlete's training, and it is that for various reasons; not only because it brisk up a man's circulation, cultivates the finest quality of muscle, and tunes his system as nothing else will do, but also because I know of nothing else which will keep either a man or a woman in such perpetual health, for its health-preserving qualities are even greater than its muscle and tissue cultivating properties." You may be sure that what this great expert tells us about massage and rubbing for men and women is also in the highest degree applicable to children.

As you will notice, I distinguish, in the description of the following exercises, between three forms of massage—viz., rubbing, stroking, and kneading.

The special "rubbing" is done with the same force, both to and fro or up and down, and is performed with the palms of the hands or with the underside of the forearms. The latter is especially to be recommended if the skin of your palms or fingers be hard or rough. You must, of course, take care not to hurt the infant's skin, which is often very sensitive. You should also be careful to keep your finger-nails cut very short.

The "stroking" of the limbs is always performed by means of the hands. While one of your hands takes hold of the child's hand or foot, your other hand encircles its wrist or ankle and strokes the limb along its entire length, always rather vigorously when going towards the body, and very gently when returning to the child's hand or foot.

"Kneading" is done by grasping with the whole hand the tissues to be manipulated, lifting them somewhat and pinching or squeezing them lightly and gently with an alternate tightening and loosening of the hold. As the flesh of the non-practised child is usually very sensitive, great care should be exercised to make the manipulations light at first. Do not use vaseline, lanoline or other emollients when massaging babies; it is of no use, seeing that during the first days you rub but lightly, while it is always dirty and difficult to remove satisfactorily.

The most natural time for the massage is after the bath. But of course the child must first be dried thoroughly with a towel before the rubbing is commenced. The temperature of the room should be moderate; not so low that the child shivers, and not so high as to cause it to perspire. Any dampness or moisture on the skin will render it liable to be rubbed raw—that is, if it be not yet sufficiently hardened.

No breathing pauses are prescribed between these rubbing exercises for infants; firstly, because these exercises are not actually performed by the infant, which lies quietly all the time, needing no extra amount of air; and secondly, because the little one might perhaps catch a cold during such pauses when no rubbing is being performed to ensure warmth. The self-massage in my rubbing exercises for adults and elder children, on the contrary, always produces sufficient warmth for the breathing pauses, even in a rather cold room or in the open air.

While the muscular exercises should be started only when the baby is about five weeks old, the massage may very well be commenced when the first bath is taken, that is, on the very first day of the infant's life. To begin with, only a few manipulations on the body and limbs, lasting for only a quarter of a minute, should be done. Increase the time from day to day, so that finally, when the first two months have passed, all the ten rubbing exercises may be performed as systematically and thoroughly as described later on.

As you may notice, several of these exercises have also various degrees, but these are not degrees of difficulty, strength or effect, as with the muscular exercises. The degrees are here arranged for a change, because older babies or infants perhaps would become impatient at having to remain in a recumbent position during all the rubbing exercises; further, because it is possible in one case to perform two exercises at once, thereby economising time; and also, because the rubbing is better performed when the child is sitting or standing.

EXERCISE No. 9.—Rubbing of feet, and front and sides of neck.

Resting on the back. Grasp both ankles with the one hand, rub the upper surfaces and then the soles of both feet simultaneously with the palm of your other hand (see Figs. 41 and 42). When the infant has grown bigger it will be better to rub one foot at a time, and then give the inside also a few rubbings.

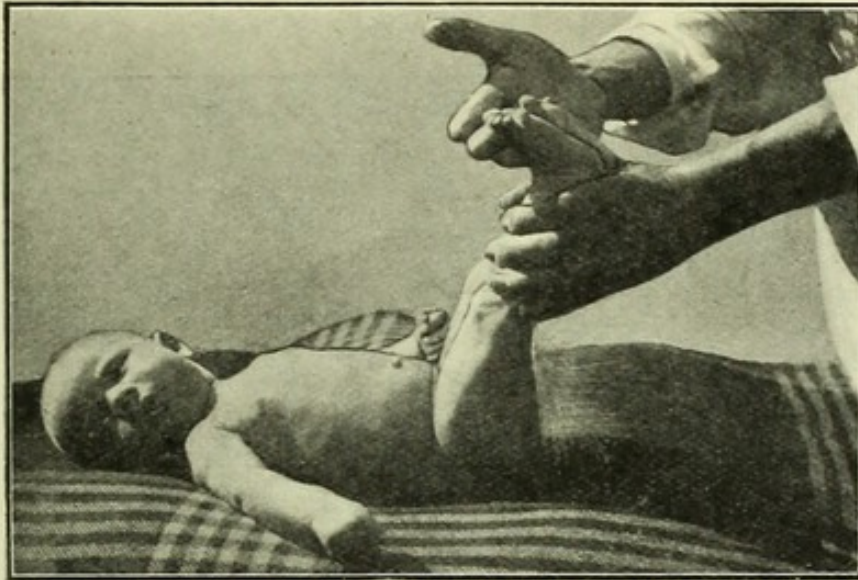


Fig. 41.

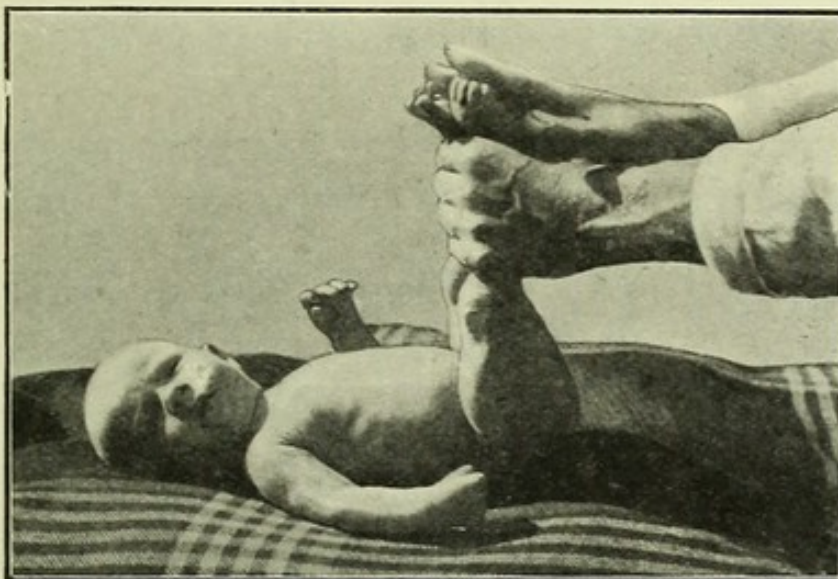


Fig. 42.

The neck is, to begin with, massaged only with your fingers, the thumb working very gently with the forefinger; later on, use more fingers and a little more force, but not against the larynx. The performance of the whole exercise must not last longer than 20 seconds. If there has been no bath and rubbing with the towel, you must remember to change Exercises Nos. 9 and 11 about, thus commencing with No. 11, which is an excellent one for warming the principal parts of the body.

EXERCISE No. 10.—Kneading and stroking of arms and shoulders.

Resting on the back. Knead by degrees the right or left forearm, elbow, upper arm, and shoulder with both your hands (see Fig. 43). Then grasp the little hand with your one hand and

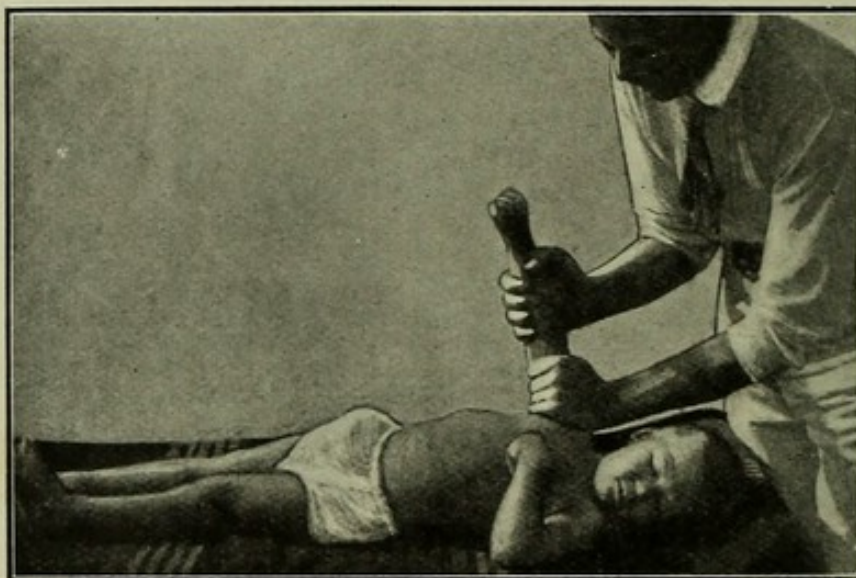


Fig. 43.

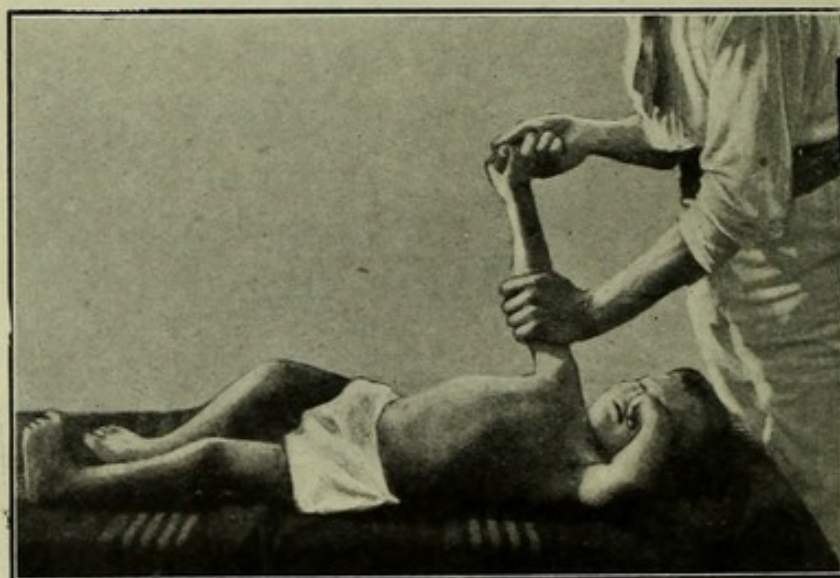


Fig. 44.

stroke the little arm and shoulder to and fro five times with your other hand (see Fig. 44). Use some force when stroking towards the body. After which the other arm and shoulder must be treated in the same way. The duration of this exercise to be 30 seconds.

EXERCISE No. 11.—Rubbing of front and back of trunk lengthwise.

The first degree.—Lay the infant on its right side, because then the heart will work more freely. Rub with long strokes the little body up and down with your palms; while one hand is going one way the other moves in the opposite direction (see Fig. 45). Perform 16 movements, lasting 10 seconds.

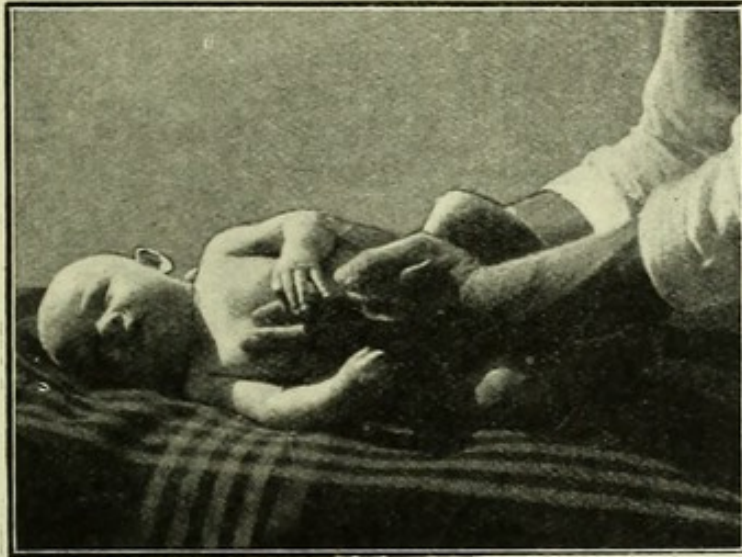


Fig. 45.

The second degree.—For older infants who want to sit up. Your one palm rubs upwards while the other rubs downwards (see Fig. 46).

The third degree.—Standing (see Fig. 47). The same movements as in the foregoing degree, except that now the palm massaging the back should rub down over the seat as well.



Fig. 46.

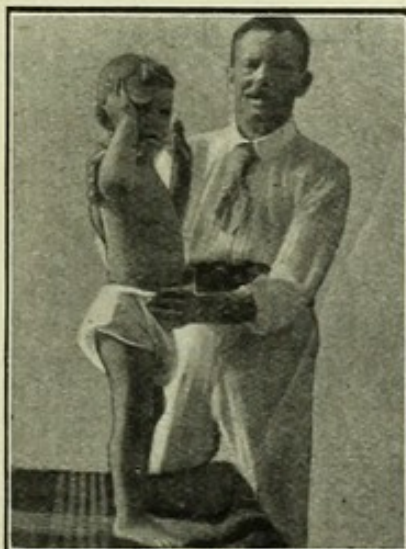


Fig. 47.

EXERCISE No. 12.—Rubbing across front of trunk.

The first degree.—Resting on the back. Rub with both palms across the entire breast and abdomen in zig-zag fashion, going from the throat to the pelvis and back again, the hands moving in opposite directions (see Fig. 48): 20 movements, 9 seconds.

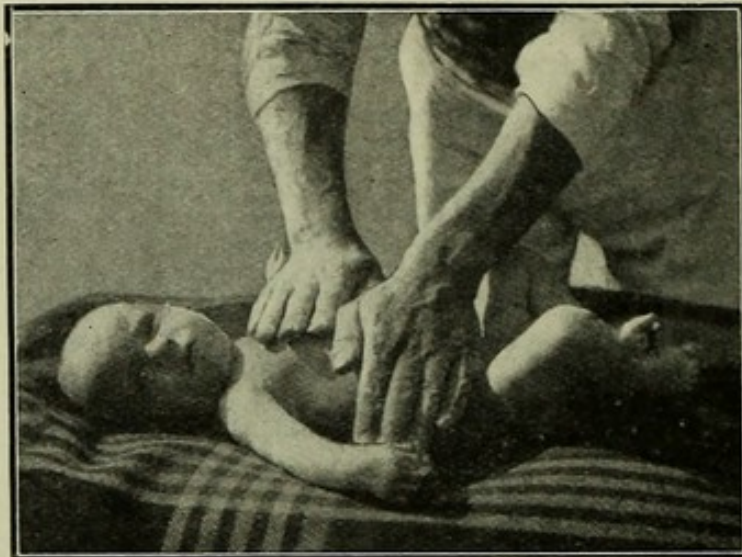


Fig. 48.

The second degree and the third degree are performed respectively in a sitting and a standing posture (see Figs. 49 and 50). But now your one palm rubs the front of the body while the other rubs the back, which constitutes a combination of the Exercises Nos. 12 and 13, these two exercises being performed simultaneously, except in their first degrees. The forty movements must, of course, be performed during the 19 seconds allowed for these exercises. Remember to rub the back of the neck also, and in the third degree to rub down and across the seat as well.



Fig. 49.



Fig. 50.

EXERCISE No. 13.—Rubbing across back, loins, and seat.

The first degree.—Resting on the stomach. Rub with both palms across the entire back of the body in zig-zag fashion, beginning upon the back of the neck, going down over the seat

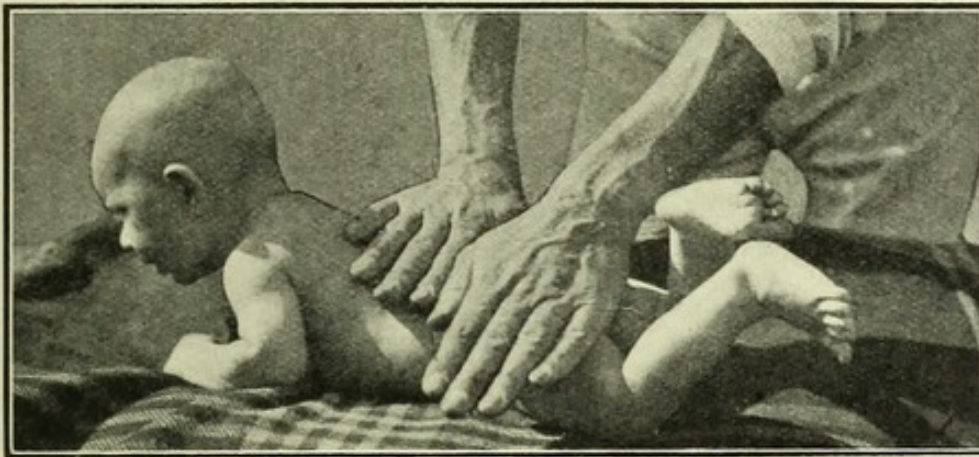


Fig. 51.

and back again, finishing on the neck. The hands must rub in opposite directions (see Fig. 51): 20 movements, 10 seconds.

The second degree and *the third degree* have already been performed simultaneously with the corresponding degrees of Exercise No. 12 (see Figs. 49 and 50).

EXERCISE No. 14.—Rubbing across sides of trunk and hips.

The first degree.—Resting on the stomach. Place yourself at the infant's feet and rub across its left flank and hip with your left palm, and at the same time across the right side with your right, moving the hands in small zig-zags from the armpits to

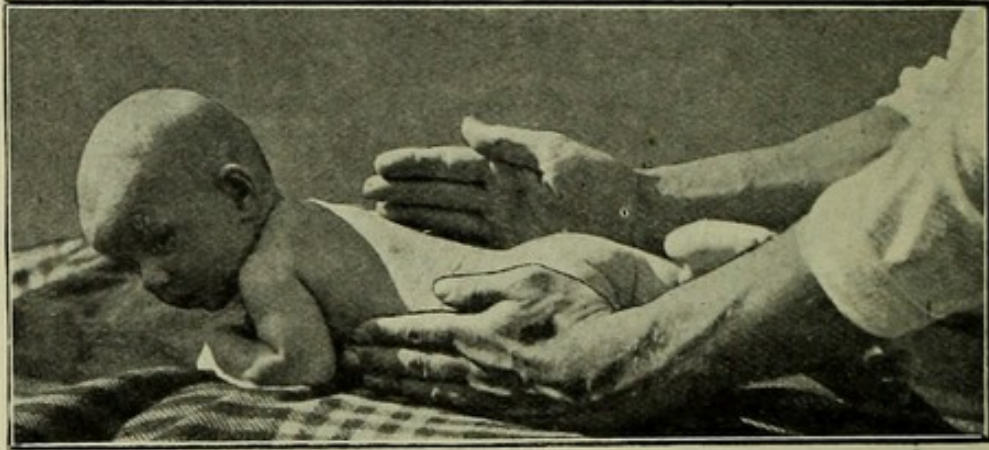


Fig. 52.

the upper parts of the thighs and back again, the one hand working upwards while the other rubs downwards (see Fig. 52): 20 movements, 9 seconds.

The second degree and *the third degree* are performed respectively in a sitting and a standing posture, as illustrated by Figs. 53 and 54. But now the hands, of course, do not work upwards and downwards, but to and fro in opposite directions.

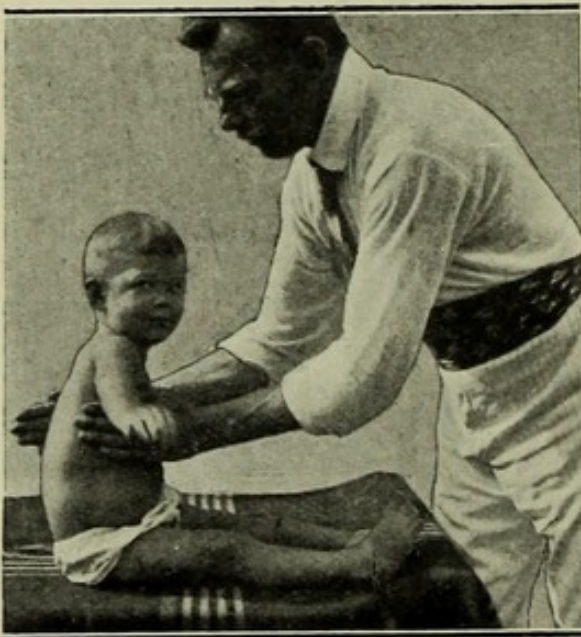


Fig. 53.



Fig. 54.

EXERCISE No. 15.—Kneading and stroking of legs.

Resting on the back. Knead by degrees the right or left calf, knee, and thigh with both your hands (see Fig. 55). Then grasp the little foot with your one hand and stroke with your other hand

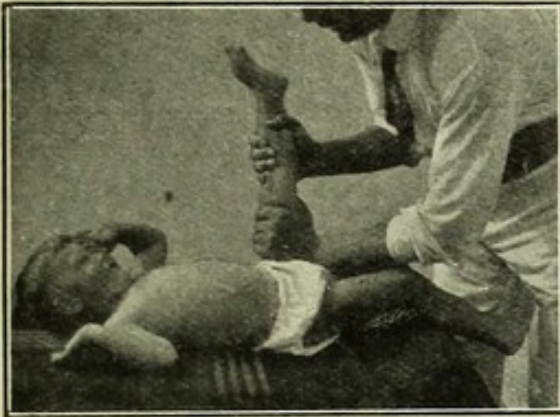


Fig. 55.

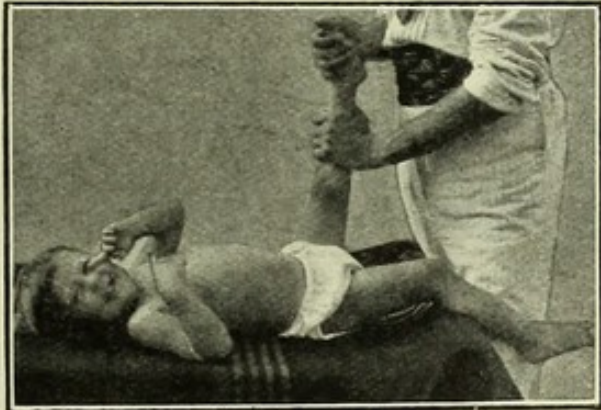


Fig. 56.

the little leg (see Fig. 56) to and fro five times in its entire length, as explained in the chapter of general remarks on massage (p. 48). After which the other leg must be treated in the same manner. Time: 40 seconds.

EXERCISE No. 16.—Rubbing of sides of trunk and hips lengthwise.

The first degree.—Resting on the back. Place yourself at the infant's head and rub with long strokes the flanks and hips with your palms, or, still better, with your forearms (see Fig. 57). The hands or arms must move in opposite directions: 20 movements, 12 seconds.

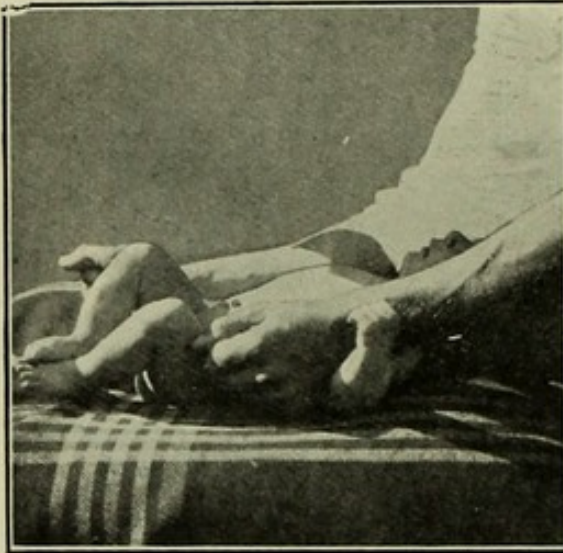


Fig. 57.

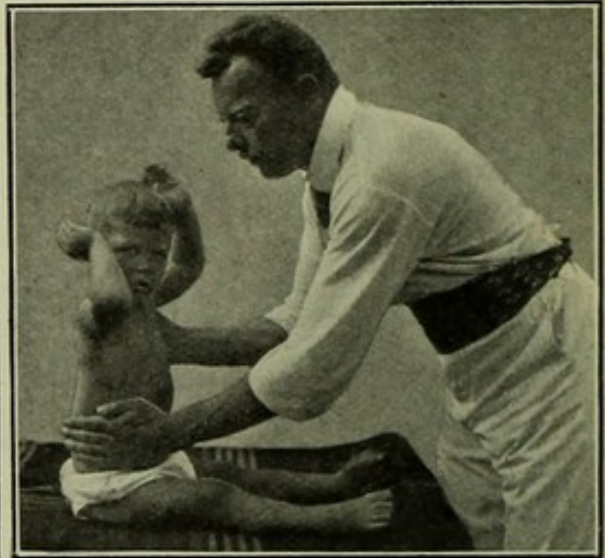


Fig. 58.



Fig. 59.

The second degree and the third degree are performed respectively in a sitting and a standing posture, as illustrated by Figs. 58 and 59. Now the hands, of course, work upwards and downwards in opposite directions.

EXERCISE No. 17.—Kneading of the stomach.

Resting on the back. How to knead is described in a previous chapter (p. 48); but here it is not only the muscles, but mainly the intestines upon which you should try to act. You must, of

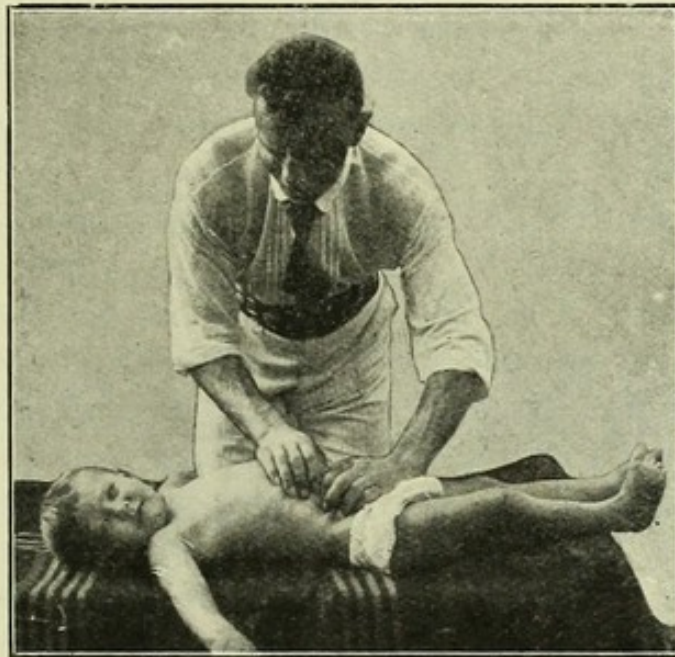


Fig. 60.

course, knead very gently to begin with. But later on, when the abdominal muscles have grown stronger and the infant strains them, you must knead vigorously in order to act upon the intestines (see Fig. 60). The child will greatly enjoy the treatment. Time: 10 seconds.

EXERCISE No. 18

is a repetition of Exercise No. 11. Here also in the first degree the infant must lie on its right side, to allow freer action of the heart. Exercise No. 11 is performed once more, just before the infant is dressed, because it is the best exercise of all for restoring warmth.

If the time allotted for each of the ten rubbing exercises be added together, it will be found that the whole amounts to 160 seconds only. The five alterations in the various resting positions can easily be done in about 20 seconds in all. The time used for the entire massage, therefore, should occupy only 3 minutes.

If you have plenty of time and wish to give your child still more massage—which, by-the-bye, would be a splendid thing to do—it would be better to go through the complete series of rubbing exercises again rather than perform each single exercise twice over. The reason for this is that some parts of the body would perhaps become too cooled during the longer intervals when not being rubbed, which might possibly cause the child to take cold.

SOME INTERESTING FACTS AND FIGURES.

The following details concerning my boys are given here, not because they have any special applicability at this point, but because a convenient opportunity occurs here as a result of the scheme of arrangement of the book.

The first table gives the measurements of the boys as taken about two years ago, and shows that *Ib* was then as big as the average British boy of fourteen years of age, and *Per* as the boy of ten. This is according to the Anthropometric Committee's Standard.

IB.	PER.	BROR.
10½ years.	<i>Age.</i> 6¾ years.	1½ years.
4 ft. 11½ ins.	<i>Height.</i> 4 ft. 3½ ins.	3 ft. 0¼ in.
6 st. 10¼ lbs.	<i>Weight.</i> 4 st. 11 lbs.	35 lbs.
31½ ins.	<i>Chest (inspiration).</i> 27¾ ins.	24½ ins.
26¼ ins.	<i>(expiration).</i> 22¾ ins.	—

These facts and figures are worth recording, as they clearly indicate the advantages that result from regular physical exercise, ample food, and unlimited fresh air, together with avoidance of coddling and unnecessary clothing.

The second table gives the measurements at the time of the publication of this volume.

IB.	PER.	BROR.
12¾ years.	<i>Age.</i> 9 years.	3½ years
5 ft. 4 ins.	<i>Height.</i> 4 ft. 8½ ins.	3 ft. 8 ins.
8 st. 2 lbs.	<i>Weight.</i> 5 st. 8½ lbs.	3 st. 2½ lbs.
33½ ins.	<i>Chest (inspiration).</i> 29¾ ins.	25½ ins.
27½ ins.	<i>(expiration).</i> 25¼ ins.	22¾ ins.

Last winter *Ib* and *Per* won, each of them, four open speed skating and ski-ing races in St. Moritz and Davos. *Ib* skated 5,000 metres (= 3 miles 200 yards) in 10 minutes 54 seconds.

Per is now so strong in the abdominal muscles that he can lie on the floor and support the whole of my weight (13 stones) when I jump upon his bare stomach. Last summer, when eight years old, he three times ascended the peak of Piz Julier (more than 11,000 feet high).

Exercise Games.

Immediately after having gone through the System, or after being massaged, the child, when dressed, should be rewarded by means of one or more of the following exercises, which have other advantages besides that of providing pleasure merely: they strengthen the infant's grip, invigorate all its joints, straighten its limbs, and develop several muscles, encouraging, moreover, boldness and assurance, and serving to counteract any tendency to giddiness. They may be varied *ad infinitum*, and the expert and practised child-exerciser will always be able to invent new ones. I will content myself with giving a few examples of these exercises.

The See-Saw Swing.

Grasp the infant's hands with your left and its feet with your right. Then swing the child to and fro, as shown in the illustration (Fig. 61). This may be attempted, in a very gentle manner of course, with quite young babies. When the child has grown stronger you may grasp it by one of its wrists only, while the other little hand takes hold of your outstretched forefinger. And when it can stand upright safely you may finish the exercise by balancing the infant upon your right palm, as high up in the air as possible (Fig. 62).

The Merry-Go-Round.

Take hold of the child's hands or feet and swing it round in big circles, you yourself turning round in the centre. Start and finish always very gently. When performed with very young children you should have a mattress or big pillow on the floor, on which to place the child after the exercise. The face may be turned upwards or downwards; consequently there are in all four different modes. The photographs illustrate two of these (Figs. 63 and 64). The easiest mode is to hold the hands, the infant's face turned downwards. When taking hold of the small hands you must take care that the infant grasps your little fingers when the Merry-go-round is performed face downwards, and your forefingers when face upwards. In either case, of course, a firm hold should be taken round the child's wrists. Let the infant swing its legs freely in the air or make long flying steps on the ground, which it is bound to enjoy thoroughly when older.

Exercise Games.



Fig. 61.



Fig. 62.

THE SEE-SAW SWING.

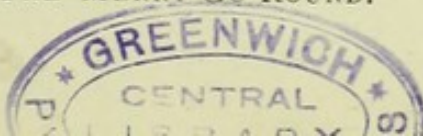


Fig. 63.



Fig. 64.

THE MERRY-GO-ROUND.



Swing first round the one way a few times and then the other way, but never for any length of time without pause. Support the infant after swinging if dizzy.

The High Swing.

Two different modes, the face being turned upwards or downwards. Take hold of the hands in just the same way as in the foregoing exercise. The photographs (Figs. 65 and 66) show clearly how it is to be performed. Fig. 65 shows the start, and Fig. 66 the highest point in the exercise when performed with the child face downwards. If the "swing" is performed face upwards, the little body must, before the start, be placed outside and not between your legs. The start and finish of the high "swing" must be done lightly, by gradually increasing and gradually stopping the impetus, in order not to strain the infant's joints.

The Somersault.

Here also are two methods, viz., a backward and a forward, of which the first is the easier, and may be performed as soon as the infant can sit in an upright posture. It is performed in the following manner:—You and the child must face each other; then take hold of its right upper arm with your left hand (with your fingers pointing downwards), and of its left upper arm with your right (fingers pointing upwards). Then swing the child up into a sitting posture upon your left shoulder (see Fig. 67). While it is sitting here you must shift your right hand from "fingers pointing upwards" to "fingers pointing downwards." From this position the backward somersault is performed as shown in Fig. 68, after which the child is placed again on the floor. You may also, from the position on the shoulder, lift the child up on to your head, walk a little round thus, and then let it do the same somersault from the head.

The forward somersault is performed in the following manner:—Let the child stride, stoop, and put its arms through between its legs. Stoop over the child and take hold of the small hands as shown in Fig. 69. Then lift the child until it can turn round and finish in the position shown in Fig. 70, by which means the somersault will have been performed. It is necessary to lift the child well up before you let it turn over, in order that it may not strike its head against the floor.

Exercise Games.



Fig. 65.



Fig. 66.

THE HIGH SWING.



Fig. 67.



Fig. 68.

THE BACKWARD SOMERSAULT.



Fig. 69.



Fig. 70.

THE FORWARD SOMERSAULT.

The Special Neck Exercises.

Even on the score of health, there is no need to do these exercises every day. Too strong a neck is neither beautiful nor necessary—unless one is ambitious to become a champion wrestler. But it is a good idea to do these exercises now and then, because they help to promote a good carriage.

The first degree, for children who can sit in an upright posture.—Place the little one on your knees, keep the little body stationary with your left arm, take your watch or any other object likely to interest the child, and hold it alternately on the right and left side of the child's head; then high up above and down again, thereby making the little one turn or bend the head in the various directions (see Fig. 71).

The second degree.—When the child is old enough to understand what you tell it, you may perform the various bendings and turnings described in my books for adults. But it should be *your* hand, not the child's own hands, which must resist the movements of the little head. You should ask the child every time if it is strong enough to bend or turn its head despite your attempts to resist it. And you should, of course, allow it to do so, and then not be sparing of praise. Fig. 72 shows the child starting to bend its head forwards against your hand. You may also do these exercises exactly in the opposite way, now telling the child that you are going to try to bend or turn its head, while it must try to resist you. You must, of course, let it win once now and again, pretending that you have not the strength to move its head. Fig. 73 shows the exerciser pretending to try to bend the child's head forwards.

Testing the Strength of the Neck.—Now and then you may test the strength of the child's neck, and several of the body muscles as well, in the following way:—Place your one hand below the back of the child's head and the other hand underneath its legs. Then raise the little outstretched body in a horizontal position. The greater the distance between your hands the more severe is the test for the child. Later you may place your hand under the heels, as shown in Fig. 74.

Special Neck Exercises.



Fig. 71.



Fig. 72.



Fig. 73.



Fig. 74.

THE CHILDREN OF THE VIKINGS.

Little "Bror" and his Brothers.¹

Despite the protests of my older boys, I am going to let their description appear in a "Baby" Magazine. They think that *The Baby's World* refers simply to tiny children, and are indignant, because they say they are not *babies*, but *boys*.

Of course, in their own eyes these little fellows of 6 to 10 years of age are not babies. They figure in this paper because their history and measurements show that it is really wise to treat baby *Bror* in the same way as his bigger brothers were treated.

Ib and *Per* were brought up in the same way as the boys of the Vikings, who lived and flourished 1,100 years ago on the Isle of Iceland. Of course, there are some modifications resulting from civilisation.

I will shortly outline the principles on which the children of olden days were treated, according to the Sagas and their modern interpreters, such as Dr. Björn Björnson, author of "The Physical Culture of the Northmen in the Olden Times."

It must be remembered that however much purely physical qualities were appreciated, the education was not entirely one-sided, since it is related that Egil Skalla Grímsson was rewarded by his parents with ducks' eggs and snail shells when at 3 years of age he composed his first poem.

For the first few years of babyhood, of course, amusement was the main thing. The children played with golden rings and brass horses, but the boys of the Vikings developed more rapidly than modern boys, and tired sooner of unreal and unmanly amusements.

When Arngrim, in the Viga-Glum Saga, was 6 years of age, he presented his brother Steinolf with his brass horse. He had got a living Iceland pony, and was ashamed to own a toy horse.

He had already begun to understand the tales of the Vikings when they returned from their military expeditions, and sat down in the hall and related their great achievements.

Arngrim was dazzled by their shining arms and glittering coats of mail. His heart swelled with enthusiasm and desire to imitate them. He passed the whole day on the shore admiring the great war galleys with their golden prows and bright sails, and thought his own fleet of wooden boats rather childish.

¹ This chapter was originally written for *The Baby's World* of June, 1910.

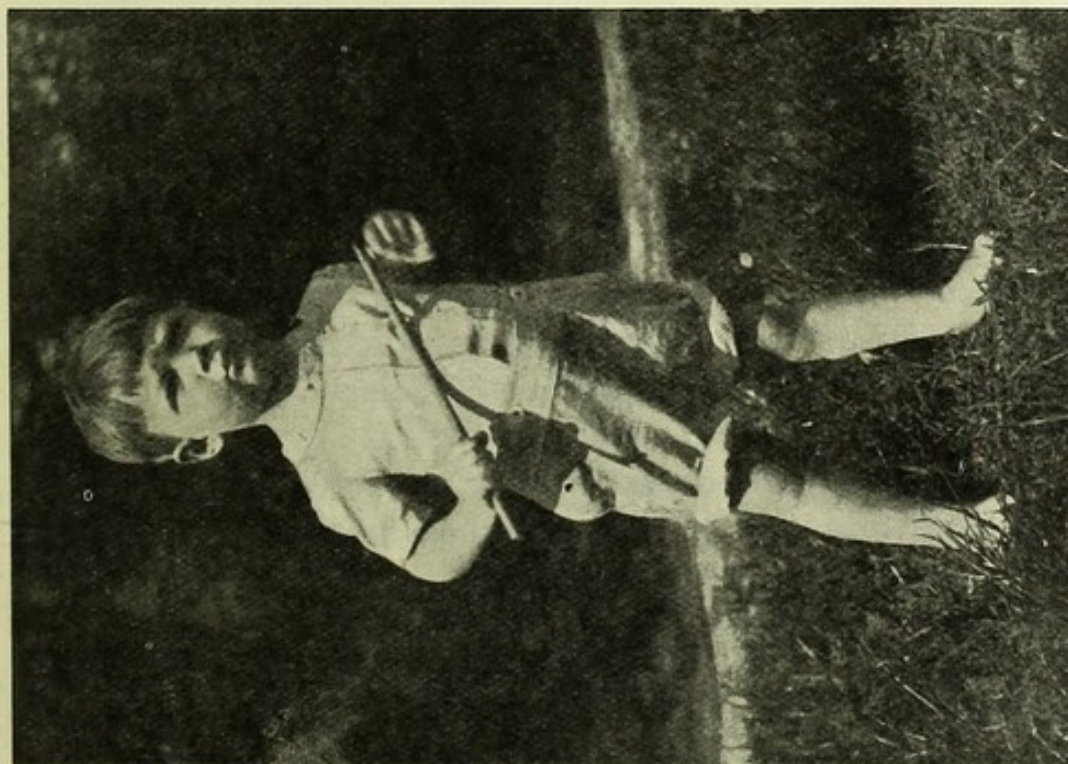


Fig. 76.
"BROR," AGED 20 MONTHS.

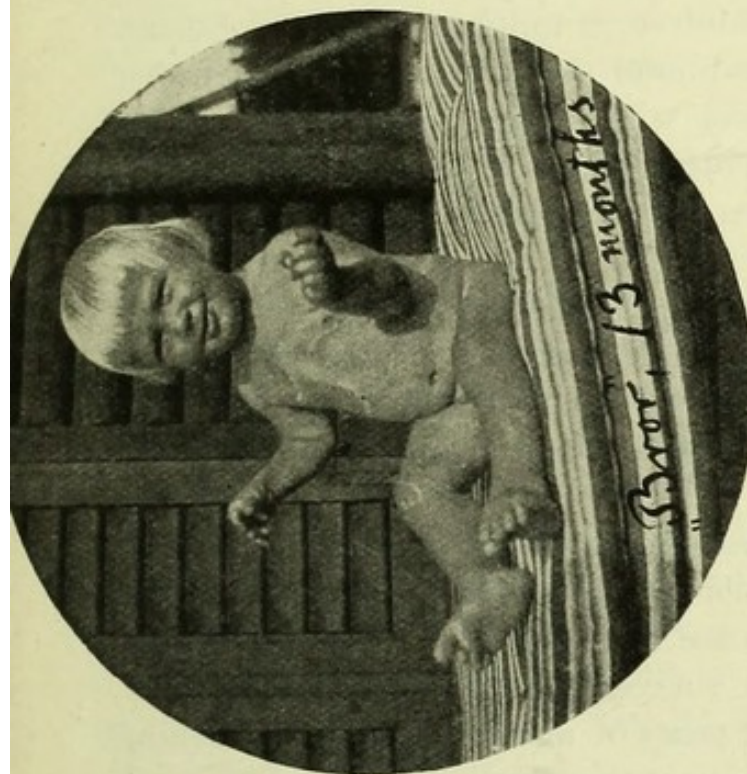


Fig. 75.

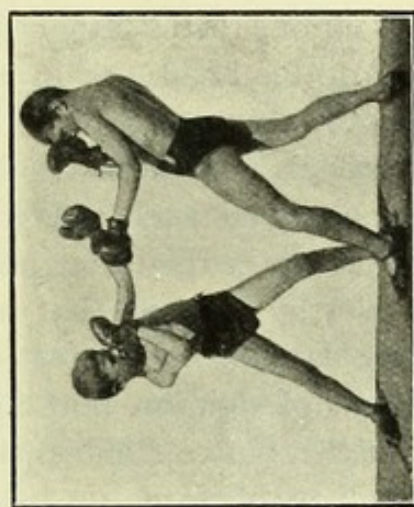


Fig. 78.
"IB" AND "PER" BOXING.

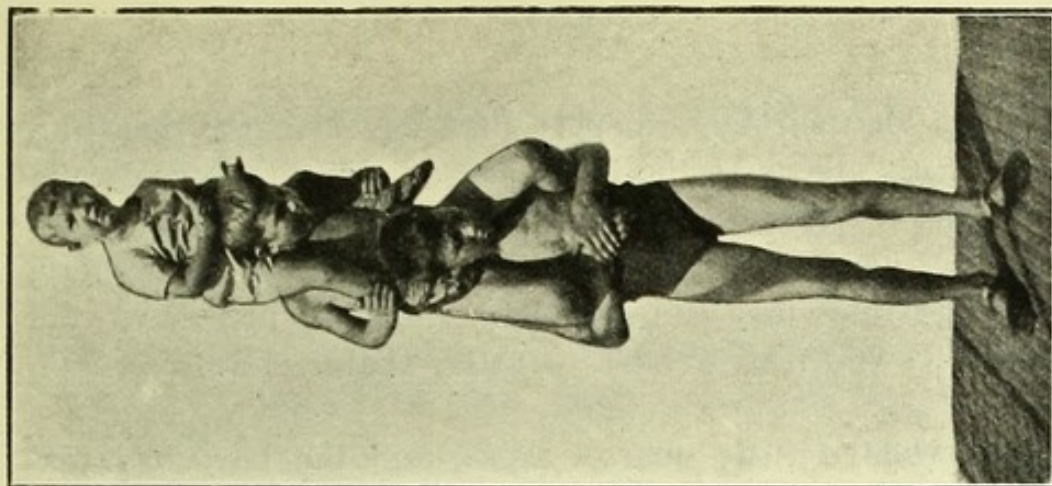


Fig. 77.
THE BOYS' COLUMN.

The Vikings let their boys disport themselves in the open air, and compete with others of the same age, in order to develop not only their physical strength, but also their ambition. When from 6 to 8 years of age, they were systematically exercised in archery, spear and stone throwing, and fencing. Early in life they were taught to ride, swim, sail a boat, wrestle, skate, and to run on skis.

Sometimes when a little quarrel arose, and the boys had real weapons in their hands, the adults did not interfere, in order not to check the self-assertion of the children, or to limit their development.

On an unlucky occasion, Gudmund the Mighty and his brother Einar, when boys, were playing with sharp axes, when, seeing his sleeping foster father tormented by gnats, Gudmund drove the axe into his head, not in malice, but simply desiring to relieve him from the annoyance.

Such an education resulted in the fact that a boy of 12 years of age possessed such physical maturity that he was able to go out on his first expedition and attempt his first feat of arms. It is noteworthy that at that age boys attained manhood in the eyes of the law.

I am of opinion that in these days we do not foster hardihood and self-reliance sufficiently among our children. I have found the advantage of so doing in the case of my own family, and believe that the same methods would succeed equally well with others. Many boys if turned out at 12 years of age would soon be seeking their homes in tears ; but such is not the case with mine.

My son *Ib* goes into ecstasies if he is allowed to make a railway trip by himself in Switzerland. Last autumn, when 10 years of age, he arranged to meet some German boys at Brunnen, in order to go for an excursion into the Maderaner Valley. At 5 o'clock in the morning he got up, dressed, and put on his heavy knapsack. Then, taking his alpenstock in his hand, he walked in total darkness the 3 miles to the railway station of Zürich to meet his friends. We did not see him till two days afterwards at 12 o'clock at night, but he had sent a telegram to prevent us being anxious, saying he had been delayed in the mountains.

Per, a little over 6 years of age, travels every day by train to the city and goes to a sort of open-air school where only German is spoken.

The reader may have noted in the book, "My System," that *Per* has never since his birth, day or night, summer or winter, been kept in a room with closed windows ; that *Ib* has nearly as good a record ;

but still baby *Bror* has beaten them both, for he was born with the windows wide open.

To tell of all the sporting achievements of my boys would take too much space, so I will just give some examples.

When 9 years old *Ib* followed day by day for a week, without dropping behind, a company of German soldiers on skis through the Black Forest. He was given a signed certificate by the lieutenant in command.

Both he and his brother *Per* are very expert on skis. Last March I tried to run them tired, but they hung on, up and down, and we made in $4\frac{1}{2}$ hours a round tour that, according to the Ski Manuals, requires a whole day. They also perform all the ski tricks, such as the Christiania Swing, the Telemark Curve, the Snow Plough, and Ski Hopping.

Last October, *Per* and I walked over the Clausen Pass from Altdorf to Linthal, 31 miles in $9\frac{1}{2}$ hours. *Per* carried his own rucksack, but said he was not tired afterwards, while I, an old racing walker, was obliged to confess that I felt my legs had had enough.

At 3 years of age *Per* could swim in the open Sound, and now is a thorough expert in the water. *Ib* has already won several swimming races against young men of 14 to 18 years of age. His medium speed for long distances, using the over-arm stroke, is 1 yard per second, and he has swum 50 yards in 44 seconds. In salt water he can perform all the feats of Mr. W. Henry, the famous founder of the "Royal Life-Saving Society."

I will not lengthen this paper by telling of their records in running and other athletic exercises, but I hope the time will come when, like the Vikings before them, they will cross the sea to compete with the athletes of England.

SECTION II.

“MY SYSTEM” FOR OLDER CHILDREN.

General Remarks and Rules.

Each exercise is arranged in degrees of difficulty, according to the strength and practised skill of the pupil. The first degree is always the easiest, the second degree is more difficult, the third still more, and so on.

It should be made a rule never to commence practising a more severe degree until the easier degree has been thoroughly mastered and can be done the prescribed number of times without any strain. It is much better, and looks better as well, to perform an easy degree correctly than a difficult one incorrectly.

The normal number of times which each movement has to be repeated at each daily performance is—as soon as the “System” has been learned—always the same for all the different degrees of the same exercise. The difference between an easy and a more difficult degree, then, consists in the greater intensity of movement, not in the larger number of repetitions. In this manner neither is the memory taxed nor the time necessary for the whole performance increased. It is a matter of course that beginners should make only very few repetitions of each exercise, and should only by degrees increase their number until the normal number is reached. On the other hand, strong boys or girls may do many more repetitions of any exercise with advantage if they are so minded. If only the rules regarding correct breathing are properly observed during the whole time, such a course will always be of benefit to them.

The rubbing exercises have not, as a rule, so many degrees of severity or difficulty. The different degrees will come quite naturally by themselves, seeing that the pupil will gradually grow

stronger, and will then be able to grasp his limbs and stroke his skin with greater force. In the following description of the rubbing exercises I have for this reason found it unnecessary to discriminate between these "natural" degrees of force. Never exercise immediately after a meal; at least one hour, but rather two, should be allowed to intervene before exercising.

Girls should not perform the severest degree of Exercises Nos. 1, 4, 5, 7, 8 and 11, unless they are very strong and have been exercised together with their brothers from their earliest childhood. And the three last degrees of Exercise No. 3 should, as far as girls are concerned, be done with the hands clasped behind the head. Further, the rubbing exercises Nos. 11, 15, 17 and 18 should be done as described in my book for ladies, as soon as the girls have reached a certain age.

To illustrate how to do the exercises in a correct way, I have in this second part of my book used photographs of my two eldest boys. *Ib* was just 11 years of age and *Per* 7½ when these photographs were taken.

And to illustrate the mistakes which are often made, because the text of my books is not always sufficiently studied nor the advice given always followed, I have used a series of photographs from a Board School in Breslau (Germany), where a few years ago "My System" was introduced. Of course these boys were anxious to do their best in the exercises, and some of their movements are almost quite correct. And for the same reason all the various mistakes, being involuntary, are absolutely genuine. These photographs, therefore, are of more value and interest than would have been other photographs in which children had been placed intentionally in incorrect poses. All these Breslau boys were between 13 and 14 years of age.

THE BREATHING EXERCISES.

These are described first, because they are the most important, and should never be forgotten or omitted. A breathing exercise, consisting of at least two deep respirations, should invariably succeed the performance of each of the other exercises. And it should always be *immediately* after, because it is just then that the lungs and heart need as much air as possible.

When during the foregoing exercise the arms have been kept straight, or if their extensors have been used in a tiring manner, then the deep breathing should be done with the hands resting on the hips. But if the arms have had a rest during the movements of body or legs, or if their flexors have been fairly well used, then the arms should be outstretched during these special respirations, being raised sideways and forced as far backwards as possible during each inhalation, and again lowered during each exhalation. Consequently the deep breathings are performed with hands on hips after Exercises Nos. 4, 5, 7, 8, and after the severest degrees of Exercises Nos. 1 and 3; while they are performed with arms outstretched after Exercises Nos. 2 and 6, after the easy degrees of Nos. 1 and 3, and after all the rubbing exercises.

The first degree.—The pupil stands quietly on his feet during the respirations.

The second degree.—The heels should be raised during the inhalation and again lowered when exhaling.

The third degree.—Two deep respirations are combined with heel-raising and one deep knee-bending, the heels kept together. An inhalation is taken each time the body is raised, and an exhalation each time it is again lowered. In Fig. 79 *Ib* shows how the arms and fingers are outstretched when inhaling, and *Per* shows how the fists are clenched when exhaling during the knee-bending. Fig. 80 shows some of the Breslau Board School boys doing various degrees of the breathing exercises. The second and the fourth boy make the mistake of not stretching out their fingers and of not leaning the head a little backwards.

The Breathing Exercises.

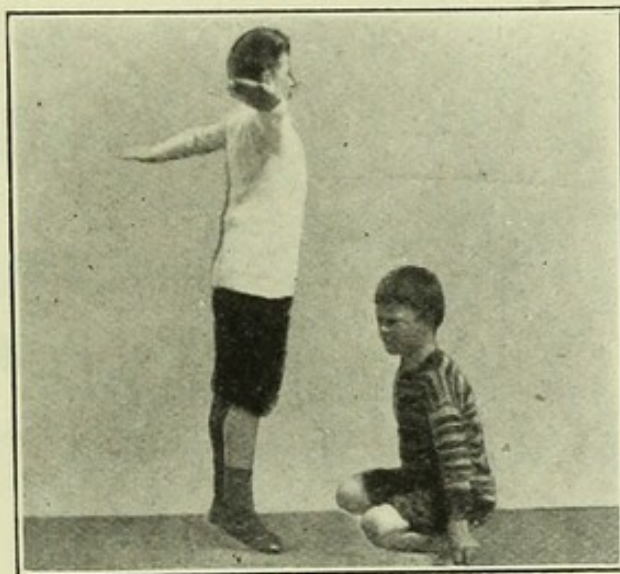


Fig. 79.

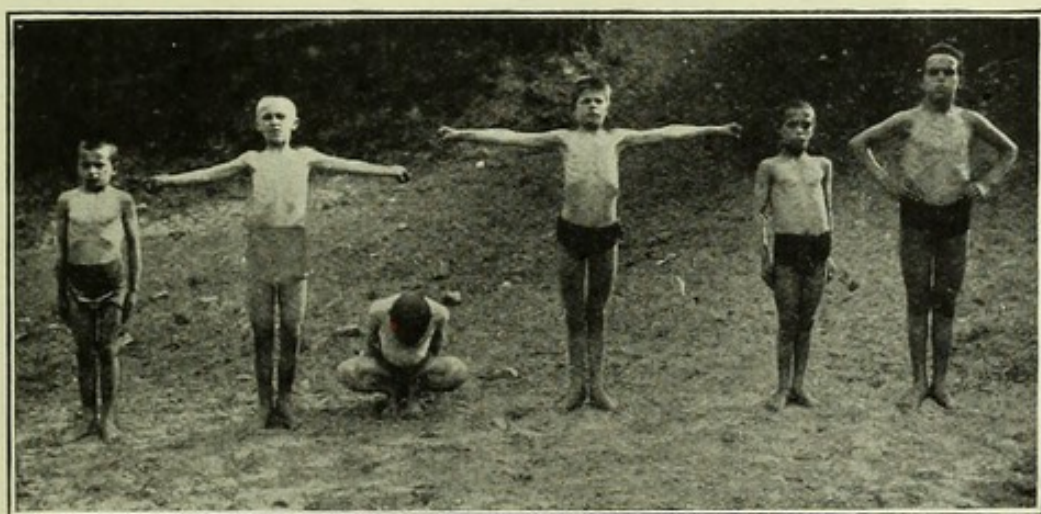


Fig. 80.



IB (11½ YEARS OLD) PERFORMING A SKI-JUMP.

THE EIGHT MUSCULAR EXERCISES.

These may be introduced by a moderate stretching of the whole body, raising the arms above the head with fingers interlaced. It is done correctly if the joints of the shoulders, elbows or wrists crack a little. Instead of this simple stretching, the pupil may "make a span" or a "bridge," as done respectively by *Ib* and *Per* in Fig. 81. The best way to make the "bridge" is to rest upon the hands or head and then allow the body to go over backwards. In the beginning the teacher should support the pupil's body, holding his hand underneath the hollowed back.

Fig. 82 shows the boys practising with head downwards.

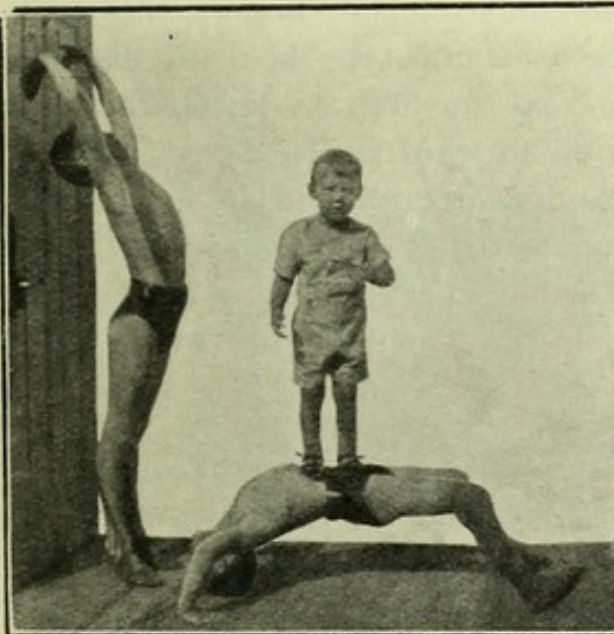


Fig. 81.

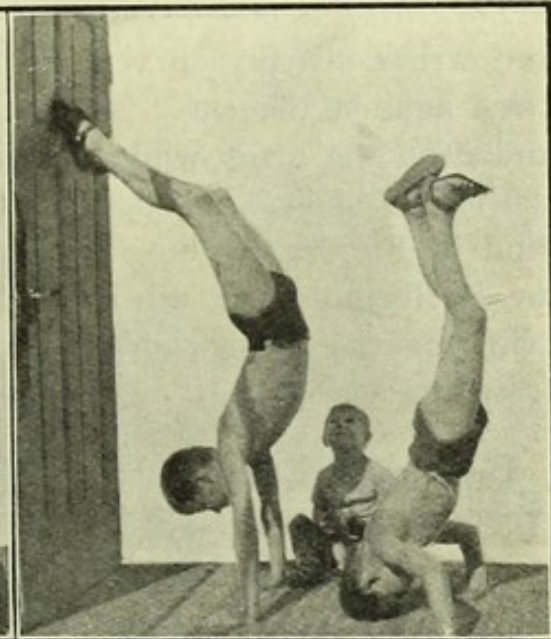


Fig. 82.

EXERCISE No. 1.—Trunk circling.

The upper part of the body is swung five times round one way, and then five times round in the opposite direction. An inhalation should be taken during the backward half of each circle, and an exhalation performed during the forward half. The spine must not be curved, but should be kept straight or hollowed, even when the trunk is leaned forwards.

The first degree.—The hands during the trunk circling should rest on the hips, with elbows drawn well back.

The second degree.—The hands are placed behind the head. Here also, the elbows must be held well back, which is often forgotten, particularly during the forward leaning.

The third degree.—With arms outstretched, fingers interlaced and wrists sharply curved. The arms must be held all the time close against the ears. It is a great mistake to lower the chin and drop the arms while swinging forward.

Fig. 83 shows *Per* doing the first degree and *Ib* the second. And in Fig. 84 five boys and a teacher of a Berlin swimming club are performing the third degree; but some of them seem to be swinging their arms and shoulders only, and not the whole trunk from the waist.

Breathing Exercise, with arms outstretched after first and second degree, and with hands on hips after the third degree.

Exercise No. 1.



Fig. 83.

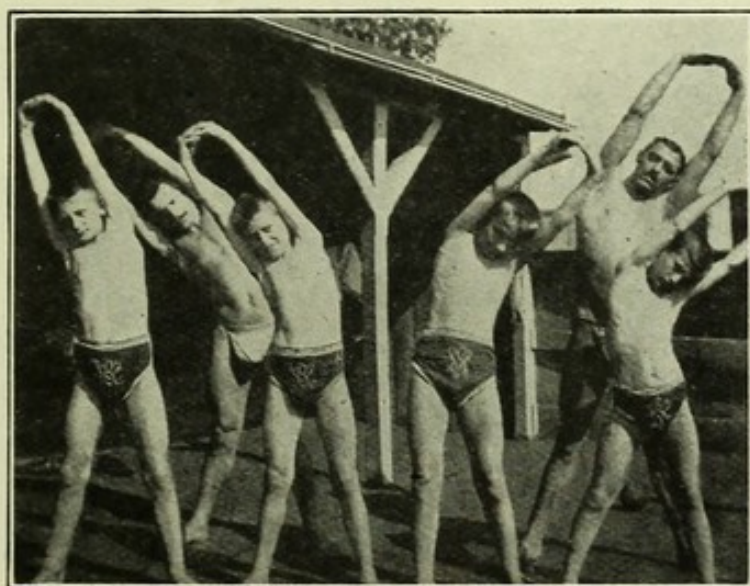


Fig. 84.

EXERCISE No. 2.—Leg swinging.

Swing one leg quickly forwards and backwards, 13 short double kicks and 3 long ones being made without pause, and then swing the other leg in exactly the same manner. The swings or kicks must be uninterrupted in order to develop the muscles on the loins and hips, and in the lower part of the back. Respiration must not, of course, keep time with the quickness of the movements, but should be slow and steady during the whole performance.

The first degree.—The pupil supports himself with one hand, placing the other on the hip.

The second degree.—The hands are placed as in the first degree, but the pupil now stands upon a footstool, so that the instep of the swinging leg can be straightened out.

The third degree.—Without any support; both hands on hips. When performed in this manner, the exercise also serves to cultivate balance.

Fig. 85 shows *Per* making a long backward kick in the first degree and *Ib* a long forward kick in the third degree, while in Fig. 86 the Breslau boys are performing short kicks in the first degree.

Breathing Exercise, with arms outstretched.

Exercise No. 2.

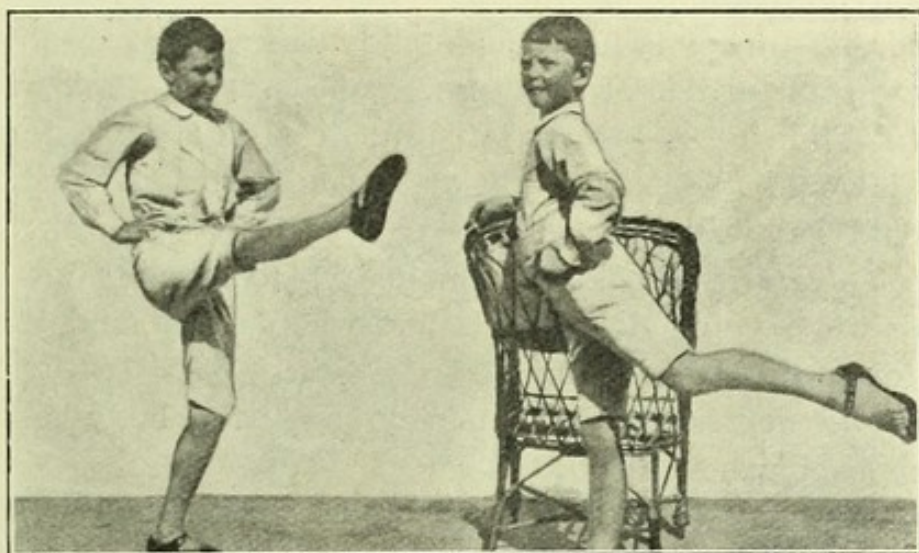


Fig. 85.

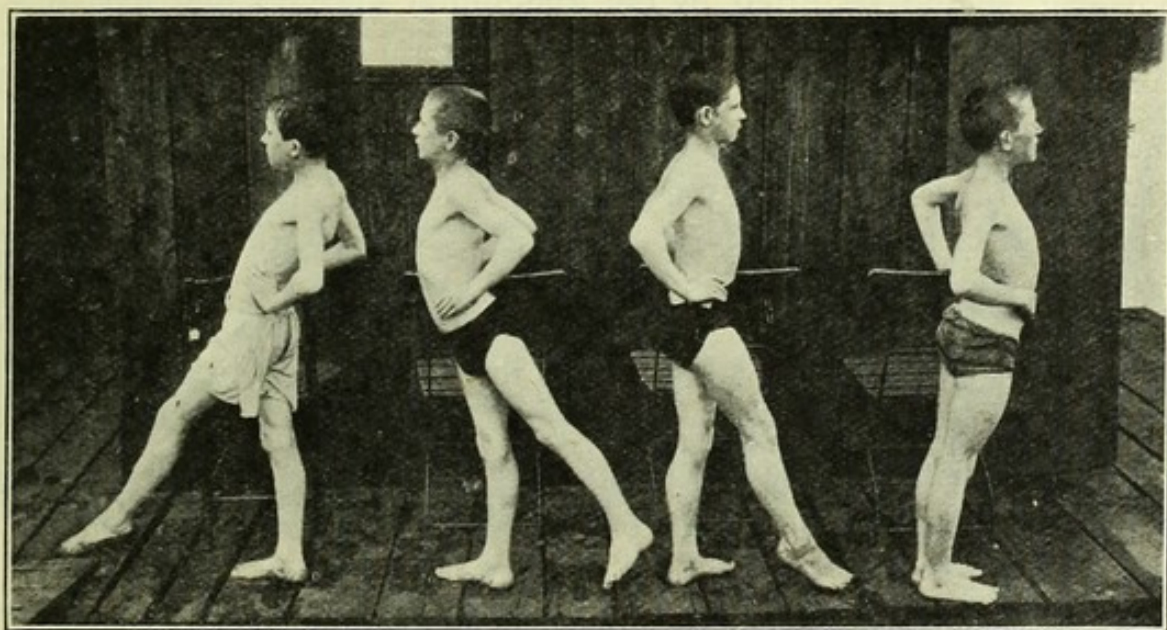


Fig. 86.

EXERCISE No. 3.—Trunk raising.

From a sitting position the upper part of the body is lowered until the back of the head touches the floor, when the upper part of the body is again to be raised. This double movement to be performed 12 times. The feet should always have a firm hold underneath some article of furniture, or one child may hold another's feet down while he is exercising. Inhale always when the trunk is being lowered, and exhale during the upward movement. The pupil should lean well forward when coming to the sitting position.

The first degree.—Weak children may place their hands on the floor both when going downwards and when rising, and they may rest on the entire back when down.

The second degree.—With hands on hips, the body resting on the entire back when down.

The third degree.—With hands behind head, the body resting on the entire back when down. The elbows must be held well back, even when the trunk is leaning forwards.

The fourth degree.—With arms outstretched, hands above head. But now only the back of the head and fingers should touch the floor when the upper part of the body is lowered. When rising, a mistake commonly made is to throw the arms forward; the trunk, however, should be lifted by the abdominal muscles and not by a jerk of the arms.

The fifth degree.—The pupil is seated on a footstool and performs the same movements as in the fourth degree.

The sixth degree.—As in the foregoing, but seated on an ordinary chair. Girls may omit the fourth degree, and should perform the fifth and sixth degrees with hands behind head.

In Fig. 87, *Ib* is performing in the third degree and *Per* in the sixth, the latter with 5-lb. dumb-bells in his hands. Without dumb-bells he can do this severe degree 50 (fifty) times without pause. In Fig. 88 the Breslau boys show how the fourth degree should *not* be done. The arms and head should be held straight up, in a line with the upper part of the body.

Breathing Exercise, with arms outstretched after the first three degrees, and hands on hips after the last three.

Exercise No. 3.

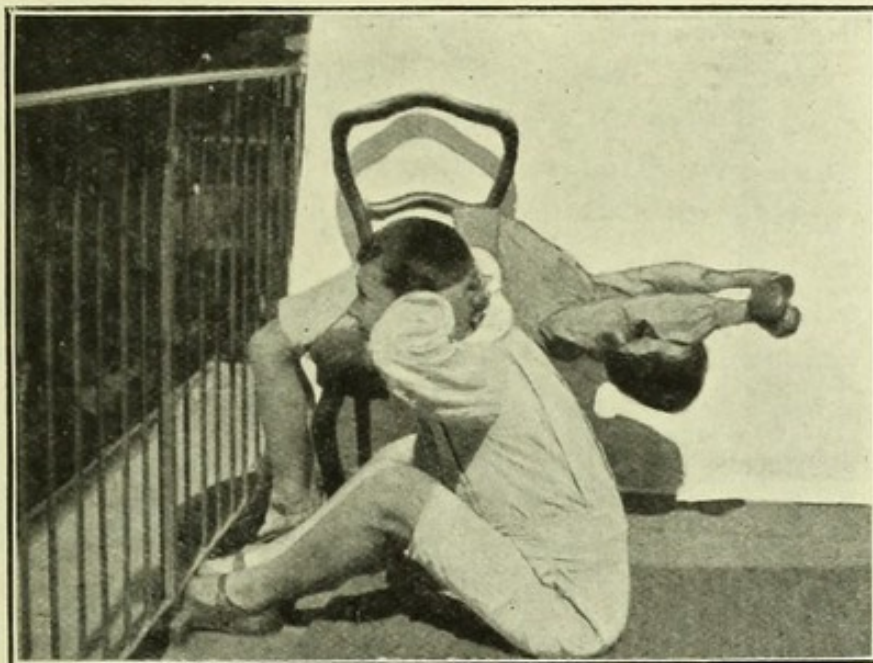


Fig. 87.

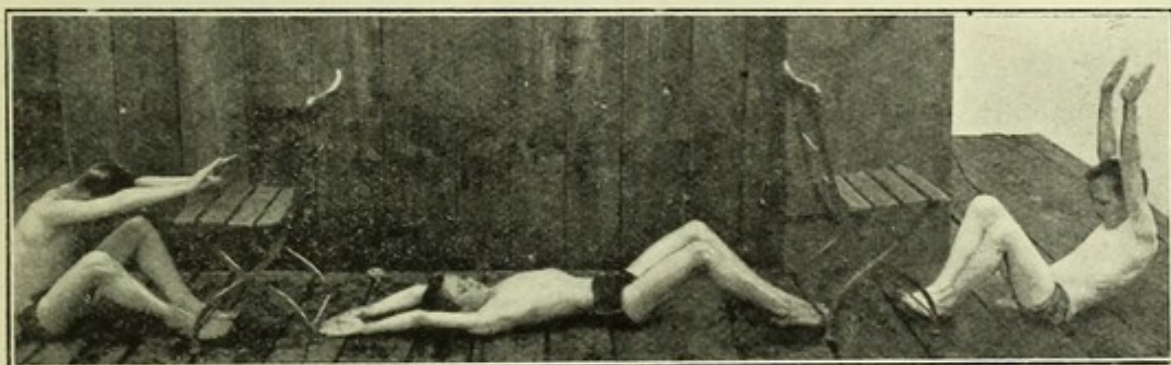


Fig. 88.

EXERCISE No. 4.—Trunk twisting (with “side-bending”).

The upper part of the body should be twisted half round (to the right and left alternately), ten complete movements in all being made. The feet must be planted firmly on the floor, the toes pointing straight out in front; the twisting should be performed only from the waist, and not by moving the feet.

The first degree.—Raise the outstretched arms, with hands clenched, until they are in a line with the shoulders, and inhale each time the trunk is twisted to either side; drop the arms again and exhale each time the trunk is twisted through the quarter circle back again to the front.

The second degree.—The arms should be held outstretched sideways the whole time. The breath must now be inhaled while the trunk is being twisted through the half-circle from the one side to the other, and exhaled during each twist in the opposite direction. The movements are now done a little more quickly.

The third degree.—A downward “side-bending” should be made each time the trunk has been twisted either to the right or to the left, the trunk being immediately raised again each time into the upright but twisted position. The clenched hands should alternately touch the floor between the feet. Now inhale when the trunk is raised and twisted round, and exhale during each “side-bending” downwards. To commence with, the pupil may bend one knee a little—the knee corresponding to the lowered hand—each time a “side-bending” is done; but later on, when the body has become more pliable, the “side-bendings” should be performed with the legs straight.

The fourth degree.—Strong boys with much practice, and in exceptional cases girls, may raise and twist the trunk quickly, with powerful jerks, but the “side-bending” during the exhalation must always be done rather slowly. As a general rule in this as in several of the other exercises, strong individuals may inhale briskly, but the exhaling should never be done very quickly.

Fig. 89 shows the correct “side-bending” in the twisted positions. In Fig. 90 the Breslau boys are photographed in various phases of this exercise. Nearly all of them have moved their feet out of the correct position. The second boy seems not to have twisted his trunk sufficiently before bending towards the floor, whereas the fifth boy is quite correct in this respect, but the position of his head and feet is wrong.

Breathing Exercise, with hands on hips.

Exercise No. 4.

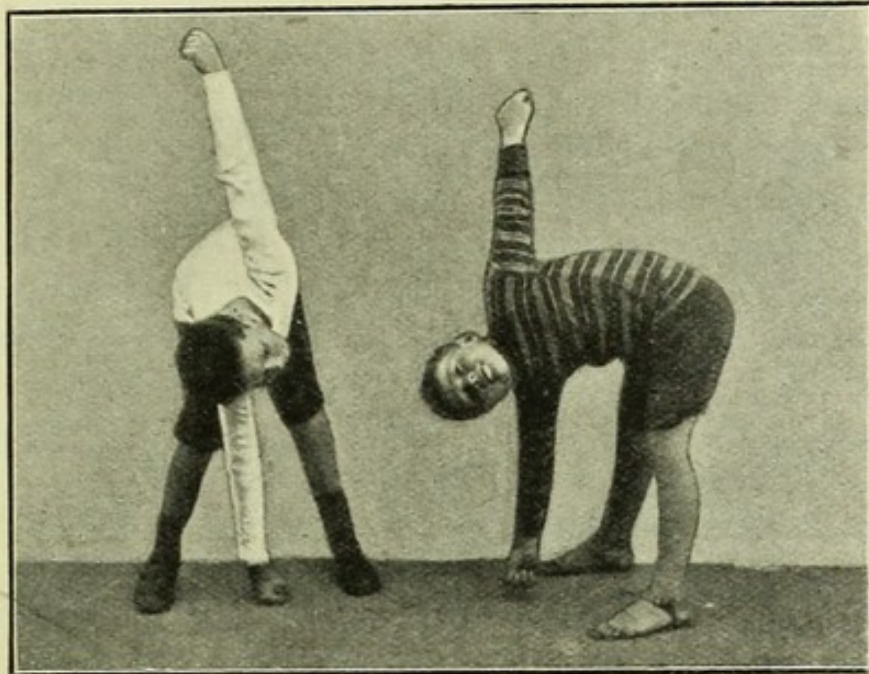


Fig. 89.

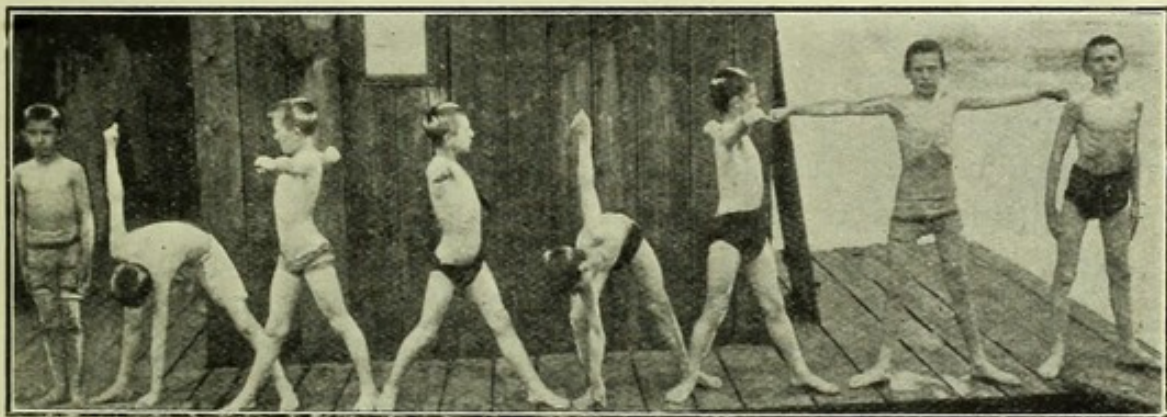


Fig. 90.

EXERCISE No. 5.—Arm circling.

To begin with, describe 13 small and 3 large circles with the arms, palms uppermost, in an upward direction during the front half of each circle; and then describe 16 similar circles, but this time in the opposite direction, and with the palms turned downwards.

In order to keep the balance easily, these arm swings should be performed in a lunging position, with one foot forward during the first half of the exercise, and the other foot in the second half.

The swinging or circling should later on be done as quickly as possible, but respiration must be carried out deeply and steadily the whole time.

The first degree.—Only a short lunge is made, and care should be taken that the circling is correct rather than fast.

The second degree.—Take a long lunge; the practised child should circle its arms quickly.

The third degree.—The upper part of the body should be leaned well forward, in a line with the hindmost leg. The circles should not be described too far to the front, while the shoulders must be forced well back during the whole performance.

The fourth degree.—This exercise will be rendered still more effective for the muscles of the back if the circles are described while the operator is lying face downwards with his thighs resting on a soft stool, or on a pillow placed upon an ordinary chair, the feet being placed under a heavy article of furniture, or they may be held by another person. The back should be well hollowed.

The pupil's legs may also be held between the teacher's thighs, as shown in Fig. 91. *Ib* is here making a long lunge, leaning forward (third degree) and swinging his arms in the final large circles with palms turned downwards. The Breslau boys in Fig. 92 are making rather short lunges and swinging with palms uppermost. The 2nd, 5th, 6th and 7th boys are describing small circles: the 3rd and 4th, large circles.

Breathing Exercise, with hands on hips.

Exercise No. 5.

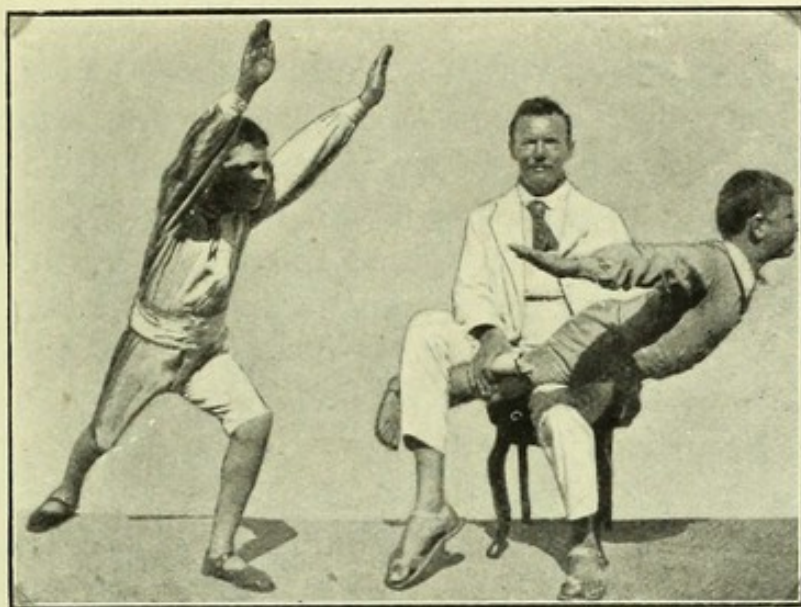


Fig. 91.

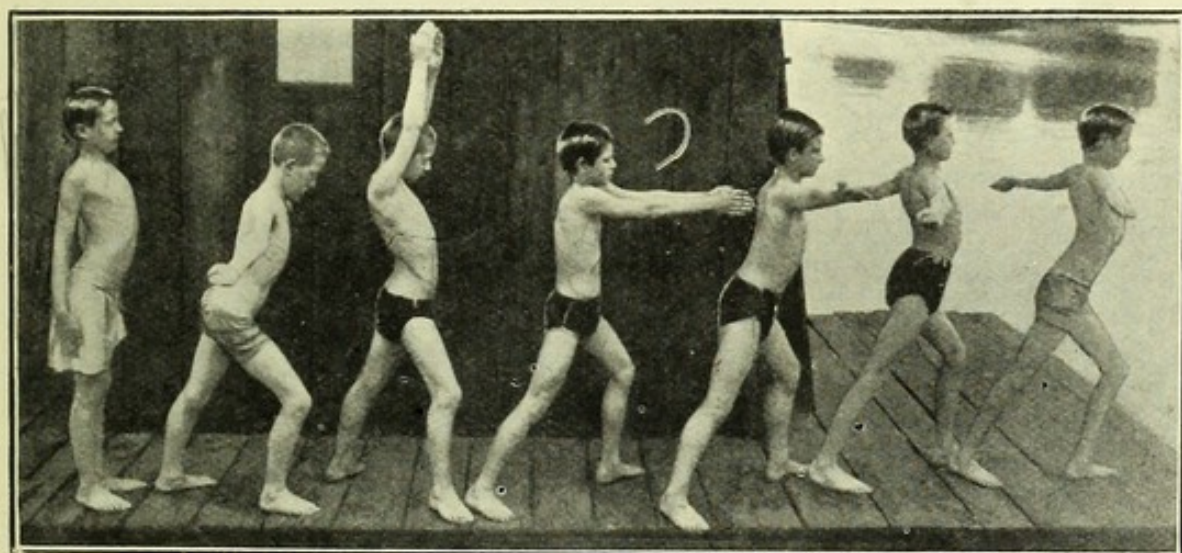


Fig. 92.

EXERCISE No. 6.—Leg-circling.

The legs should first describe 6 rather small and 2 very large circles, the outer half of each circle being made in a downward direction ; after which 8 similar circles should be described in the reverse direction. When swinging both legs at once, the feet should be pressed against each other when meeting in the smaller circles, while the legs, of course, must cross one another during the inner halves of the large circles. Inhale when the feet are lifted and moving away from each other, exhale when the feet are lowered and being pressed against one another.

The first degree.—Only one leg should be swung at a time. And in order to avoid over-exertion, the pupil may at first make the 8 circles of the first sort with the one leg and then with the other ; and then the 8 circles in the reverse direction in the same manner, beginning with the first leg and following with the other.

The second degree.—Both legs should be swung at once, with moderate speed, corresponding to an ordinary respiration. The hands should be held behind the head, which is raised a little, so that the pupil can observe the movements of his legs.

The third degree.—Breathing should now be as deep and quiet as possible, and the corresponding circling of the legs, therefore, rather slow. This exercise is more severe when done slowly, whereas most of the other exercises are more difficult when done quickly. The head should now rest on the floor, the hands being placed on the hips, or, still better, the arms outstretched above the head, and lying on the floor in a line with the body.

In Fig. 93 *Ib* shows how the legs are to be crossed in the large circles, whilst in Fig. 94 the Breslau boys illustrate various phases of the smaller circles.

Breathing Exercise, with arms outstretched.

Exercise No. 6.

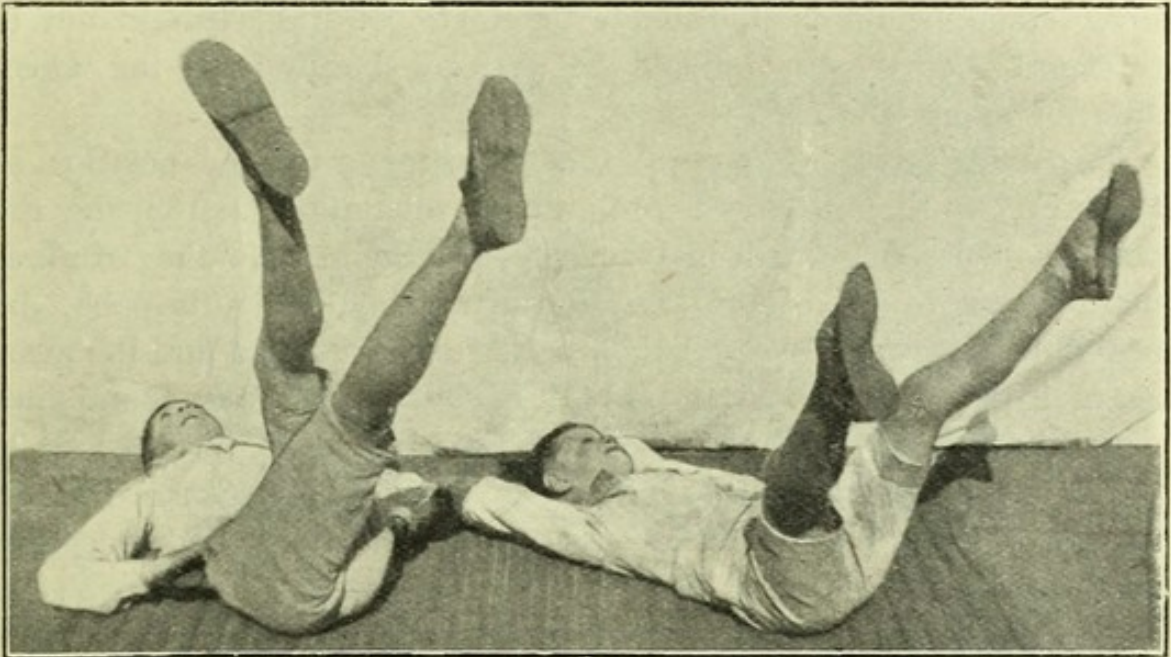


Fig. 93.

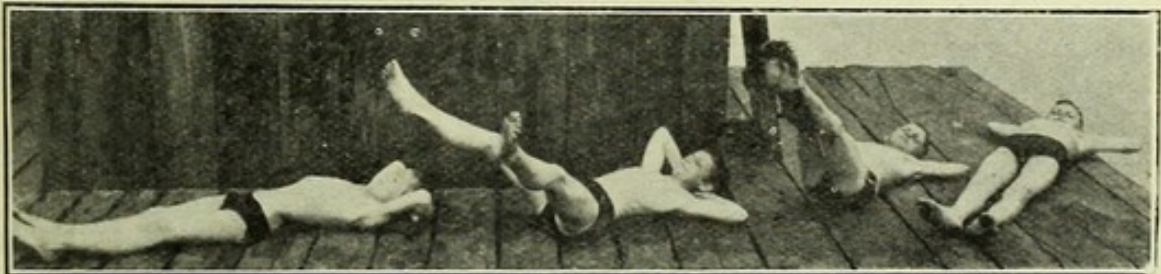


Fig. 94.

EXERCISE No. 7.—Trunk-twisting (with “forward leaning”).

The upper part of the body, while in a twisted position, should be leaned, with head well erect, alternately over the right and the left leg, 10 complete movements in all being made. The feet must stand firmly on the floor, the toes pointing straight out to the front; the twisting should be performed only from the waist, and not by moving the feet.

The first degree.—The pupil should assume a twisted position, at the same time drawing a preliminary inhalation and lifting the outstretched arms, with fists clenched. Each time the trunk is inclined over one of the legs, the arms should be dropped, the breath being meanwhile exhaled, being again inhaled and the arms again lifted each time the trunk is raised and twisted round in a vertical position, to face towards the opposite side.

The second degree.—The twists must still be performed in an upright posture, but the arms are now held outstretched sideways all the time.

The third degree.—The twists should here be done in the “forward”-leaning positions, alternately over the right and left leg. Inhale while the trunk is being twisted round, the breath being exhaled while it is being swung over to the opposite side. It is a mistake to curve the back or to bend too far downwards. The twists must be performed with a straight or hollowed back, and the rising should not be commenced until the twisting is finished. In the beginning the pupil may bend one or the other knee each time the trunk is leaned over the corresponding leg; but by degrees the body will become more supple until at last the exercise can be done without bending the knees.

The fourth degree.—Exceptionally strong children may twist round quickly with a jerk, but the swinging of the body over to the other side, during exhalation, must always be done rather slowly.

Fig. 95 shows the correct positions when doing the third and fourth degrees. The Breslau boys, with the exception of the first boy in Fig. 96, are not standing correctly on their feet. The second boy is curving his back.

Breathing Exercise, with hands on hips.

Exercise No. 7.

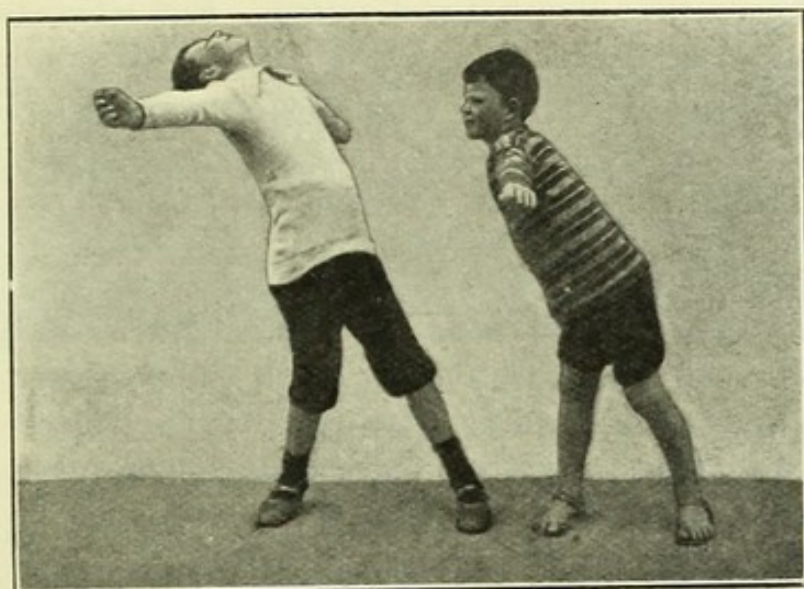


Fig. 95.

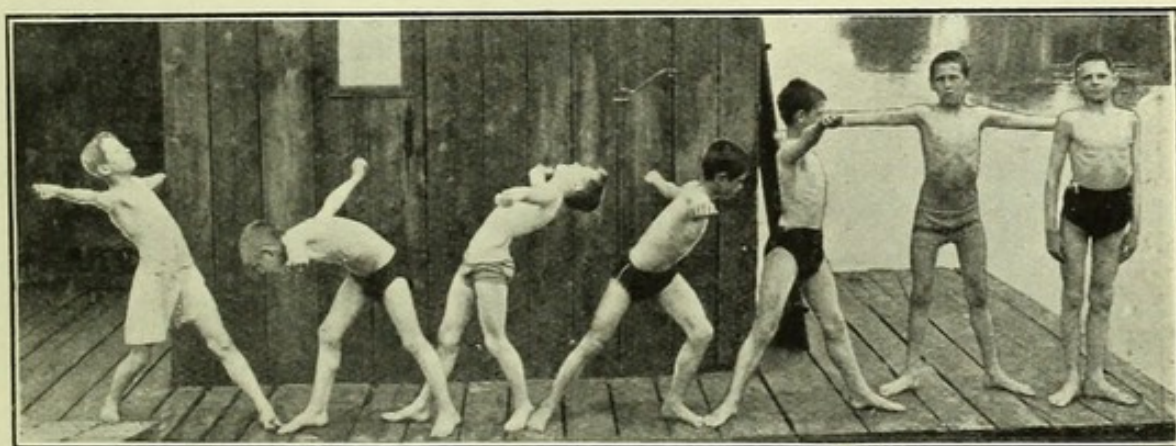


Fig. 96.

EXERCISE No. 8.—Body-sinking, with “arm-bending.”

While the weight of the upper part of the body rests upon the arms, these should be alternately bent and straightened 12 times, the body being thus lowered and raised. But whereas in all the other exercises the breath should be inhaled when moving upwards or backwards, and exhaled when going downwards or forwards, the opposite is the rule in this case. The pupil must now inhale each time when bending his arms, because then the elbows move outwards and the chest is expanded.

The first degree.—The hands may be rested upon the window-frame or any piece of furniture. If the support be rather high, and the pupil stands quite near it, the movement is a very easy one; becoming more difficult in proportion as the operator stands further away from the support, or according to the lesser height of the latter.

The second degree.—The knees and palms of the hands rest on the floor. The finger tips should point slightly inwards, and it is a good plan to turn the head sideways, alternately to the left and the right, each time the arms are bent, as it is then possible to sink the body nearer to the floor, and there is also less risk of inhaling dust through the nose. Besides, the turnings of the head constitute a very good neck exercise.

The third degree.—With palms of hands and toes only resting on the floor. The body should be kept rigid and perfectly straight the whole time. It is a mistake to let the abdomen sink downwards, or to allow the seat to protrude upwards.

The fourth degree.—As the third degree, but one leg—the right and left alternately—should be raised, with ankle and knee well stretched, each time the arms are bent.

The fifth degree.—Here also the legs should be raised alternately; but the pupil must now rest on the finger tips only, instead of on the palms of the hands. This rather severe degree should be performed by girls only when possessed of exceptionally strong fingers and wrists.

Fig. 97 shows *Per* doing the fifth degree and *Ib* the second degree, whilst two of the Breslau boys in Fig. 98 are performing

Exercise No. 8.

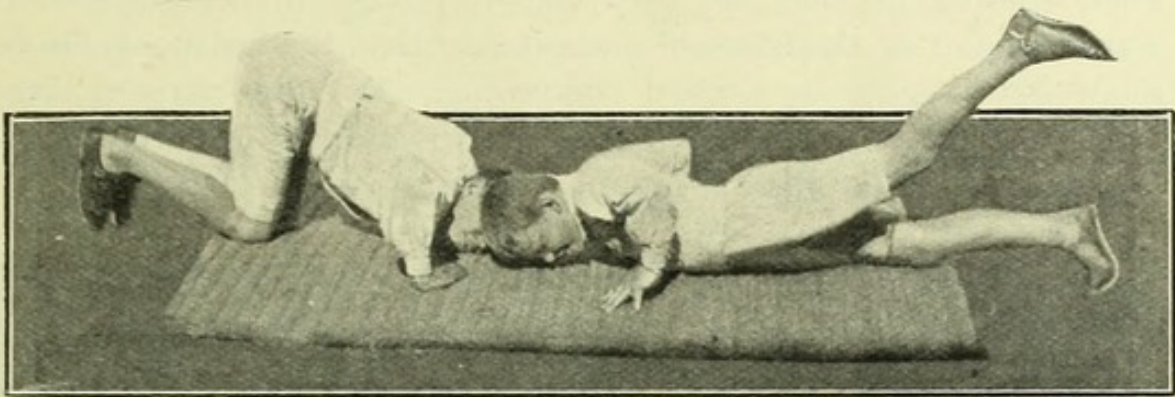


Fig. 97.

the first, two of them the third, and one the fourth degree. But the boys generally are not keeping their bodies straight enough; and the 2nd and the 3rd boys should have their hands turned more inwards.

Strong children may conclude this exercise with an arching of the

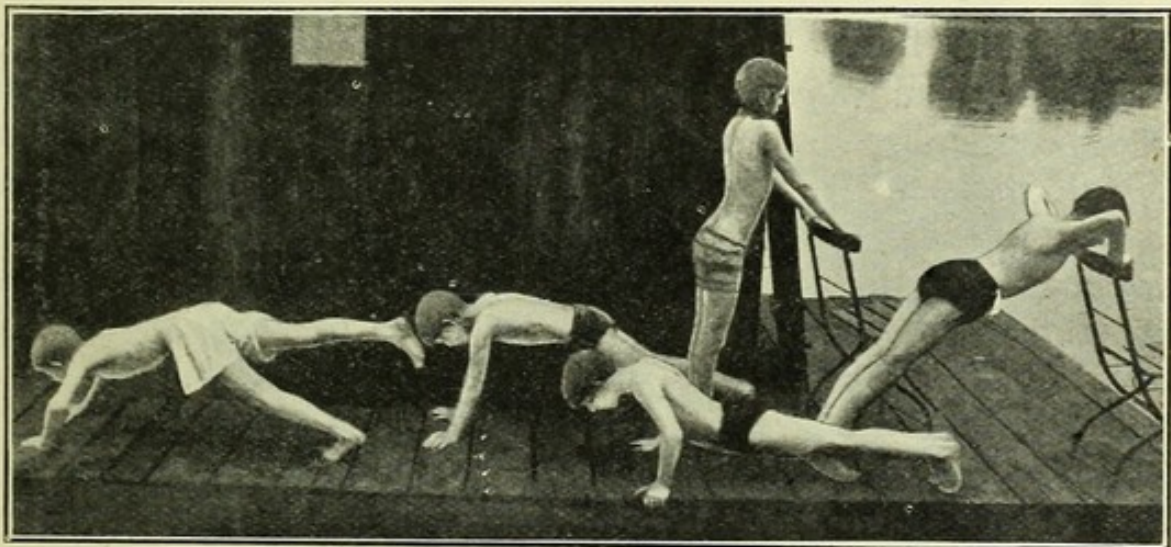


Fig. 98.

(Continued on next page.)

body so that it resembles the rocker of a rocking-horse, as shown in Fig. 99.

Breathing Exercise, with hands on hips.—Even strong and practised children should never in this case do the heel-raising or knee-bending, because the bath usually follows immediately afterwards, and it is therefore of importance that the heart should be allowed to regain its normal composure. For this purpose three times as many deep respirations as in the ordinary breathing pauses (that is six at least) should be taken.

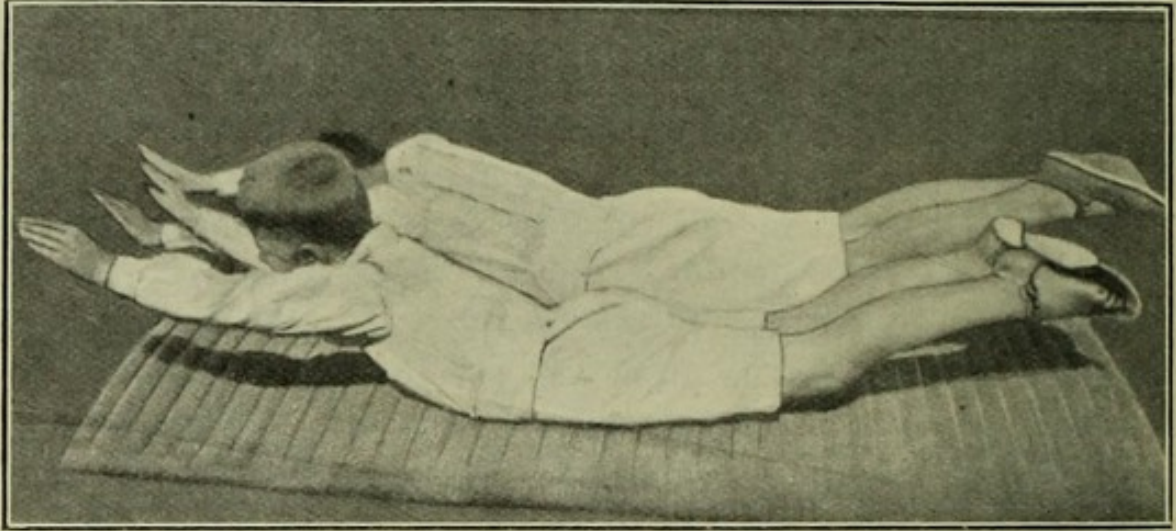


Fig. 99.

THE BATH AND DRYING.

There is hardly any necessity for me to say anything in an English book concerning the bathing of older children. I will content myself, therefore, with a few words explanatory of the illustrations.

Fig. 100 shows *Ib* using a little bath which may be carried in a handbag when travelling, or in the knapsack when boys are out scouting. It consists merely of a square piece of waterproof with a strap in each corner. It is laid upon a frame of four thin collapsible pieces of zinc, which are also easy to carry. But even these can be dispensed with, as four pieces of wood or four ordinary walking-sticks will prove just as serviceable. The whole apparatus should be spread on the floor in front of the washstand, one edge of the waterproof being placed just underneath the front of it in order to catch any drops falling down from the marble top. After the bath, the corners of the waterproof must be gathered together by the straps, and the water carried away or poured out into a bucket or basin, as shown in Fig. 101,

In Fig. 102 a Breslau boy is using a very convenient hand shower-bath,* while his four comrades illustrate various phases during the drying of the body. How to do this in the most practical way is fully described in my original book "My System."

* This little bath may be obtained of Messrs. Ewart, Seymour & Co., Ltd., 12 Burleigh Street, London, W.C., packed in strong cardboard box, carriage paid, for 5s. It is constructed entirely of zinc, and is thus very light and absolutely rust-proof; it has no loose parts or fittings, and therefore cannot get out of order; and measuring only 8 inches in height and the same in width, it can easily be carried among one's personal belongings when travelling.

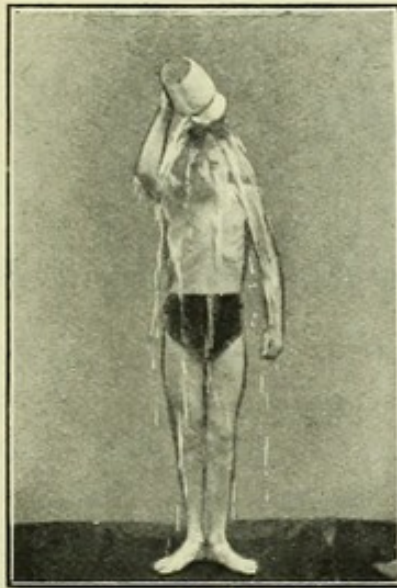


Fig. 100.



Fig. 101.

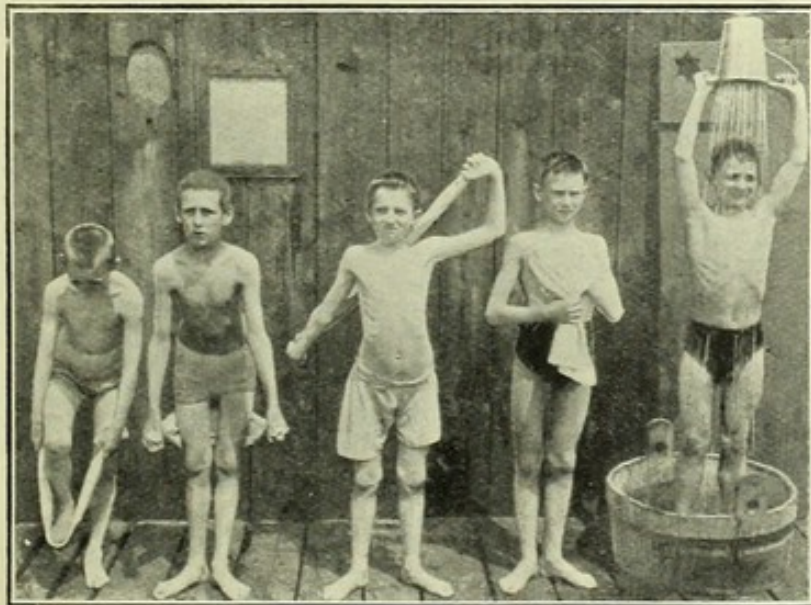


Fig. 102.

THE RUBBING EXERCISES.

In these exercises the massage should always be done by means of long strokes. Exercise No. 9, however, forms the single exception, the massage consisting of rather short backward and forward strokes. The stroking of the limbs should always be most vigorous when performed towards the body.

EXERCISE No. 9.—Rubbing of feet and round the neck.

The top and inside of the one foot should be rubbed at least 25 times with the other foot, after which the feet change about. And the throat, sides of neck and top of back, well down between the shoulder-blades, should be rubbed with the hands, first with the one, then in a similar manner with the other. The pupil must never forget to breathe deeply and steadily during these quick rubbings.

The first degree.—The rubbings with hand and foot are performed separately. For instance: firstly, the one foot is rubbed, then the neck with the one hand, then the other foot, and, finally, the neck with the other hand. Or the pupil may complete the rubbing of both feet before the neck is rubbed.

The second degree.—The rubbings are performed simultaneously, first by one foot and one hand together, after which the other foot and hand take their turn. Fig. 103 shows the massage of the top of foot, and back and sides of neck; and in Fig. 104 *Ib* is rubbing the side of his foot and his throat, whilst *Per* is rubbing the top of his back.

Breathing Exercise, with arms outstretched.

Exercise No. 9.

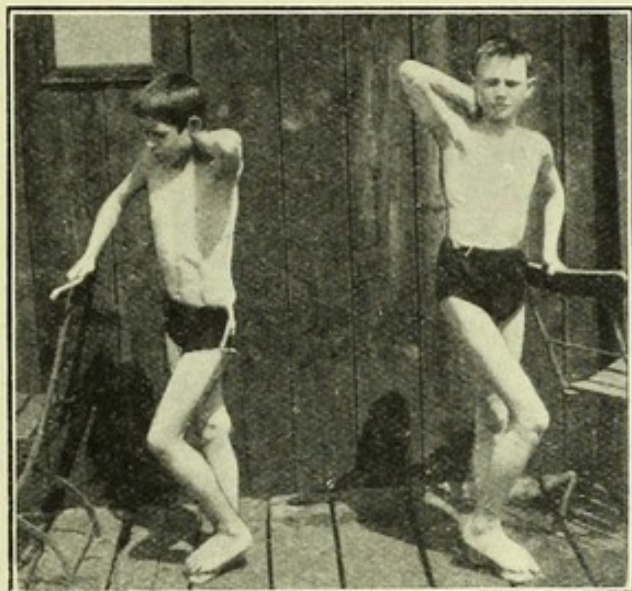


Fig. 103.

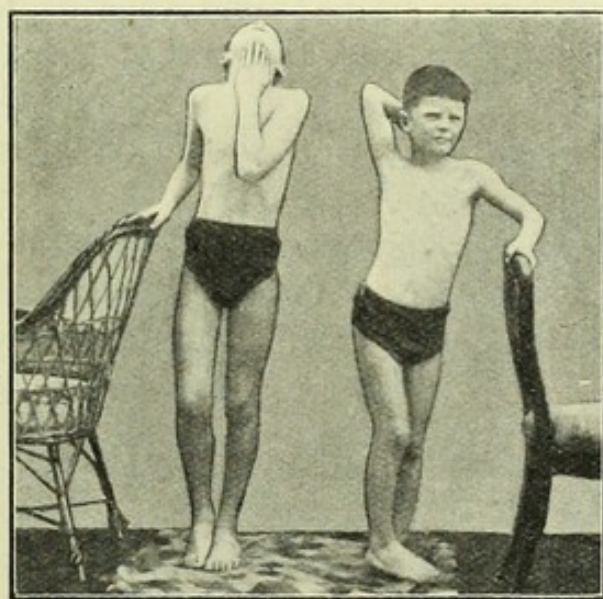


Fig. 104.

EXERCISE No. 10.—Rubbing of arms, shoulders and round armpits (with deep knee-bending).

The first degree.—This consists of 10 movements, and each movement falls into a measure of five beats.

1st beat: The outside of the one arm (which should be extended to the front) is stroked upwards from the finger tips to the neck.

2nd beat: The same side of the arm is stroked downwards to the finger tips.

3rd beat: The under side is stroked from the finger tips to the armpit, followed by a cross-rubbing of the nearest part of the breast inwards from the armpit.

4th beat: The rubbing hand is swung back again under the arm just rubbed, and takes hold of the shoulder-blade as far back as possible, while the top of the opposite shoulder is grasped by the other hand.

5th beat: Both arms are stretched out to the front, the last-mentioned hand in its course stroking the hitherto unrubbed arm from the shoulder to the finger tips, where the hands are separated.

The right and the left hand should, of course, alternately start this combined rubbing movement, each of them five times.

Inhalation should begin when the last part of the 3rd beat is performed, and should continue during the 4th and 5th beats, while exhalation should begin at the same time as the 1st beat, and should last during the 1st, 2nd, and part of the 3rd beat. For this reason it is always advisable to let the pupil take a preliminary inhalation just before the first of the ten combined movements is started.

The second degree.—A bending and re-straightening of the legs, without heel-raising and with the feet apart, should be performed during the first half of each combined rubbing movement; that is, at the same time as the breath is being exhaled. There are in all ten such knee-bendings performed, and they should be done rather quickly, and thus differently from the knee-bendings in the breathing exercise, which are performed slowly; the heels also in this exercise are separated, whilst in the breathing exercise they are kept together.

Fig. 105 shows the various beats of the first degree of this exercise, while the second degree is illustrated by Fig. 106.

Breathing Exercise, with arms outstretched.

Exercise No. 10.

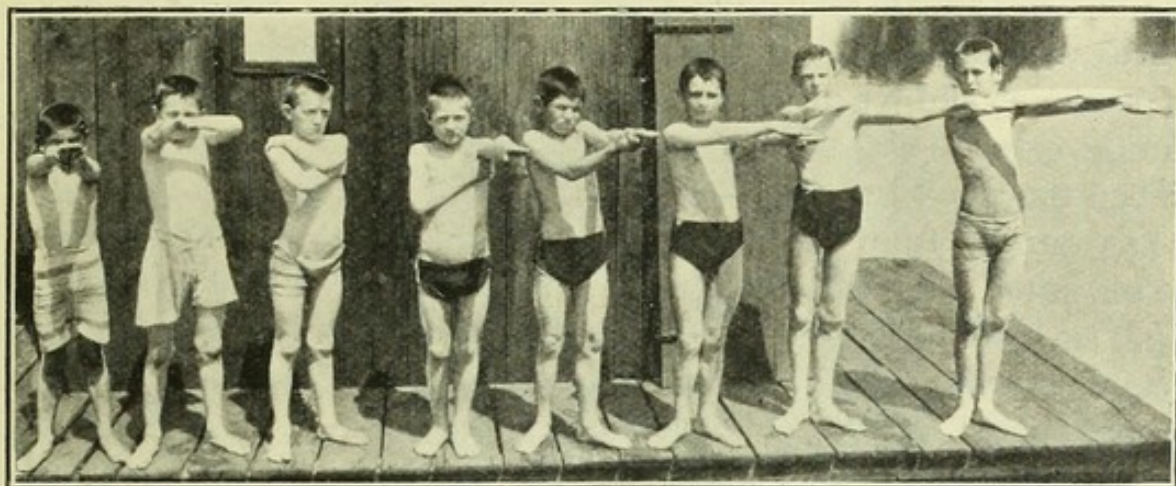


Fig. 105.

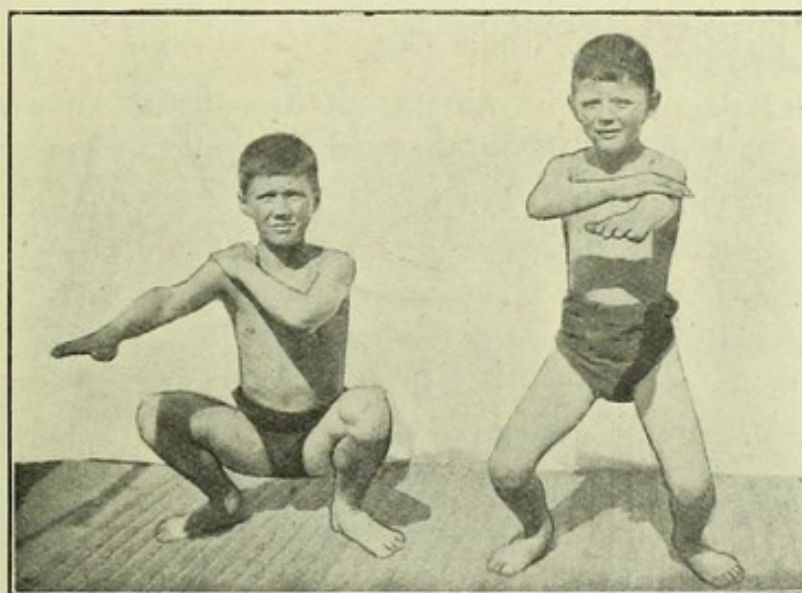


Fig. 106.

EXERCISE No. 11.—Trunk bending backwards and forwards, with rubbing of front and back.

The upper part of the body should be bent 20 times backwards and forwards alternately, as low down as possible without bending the knees. Inhale while the trunk is being raised and bent backwards, exhale during the forward and downward movement. The abdomen should be distended during inhalation, and drawn well in during exhalation. The massage is done in the following manner: When the trunk has been bent backwards, the hands should make a long stroke from the collar-bones down the entire front of the trunk, after which they leave the trunk sideways, and grasp the back as high up as possible. Meanwhile the forward bending has begun, and during its continuation the hands should make a long uninterrupted stroke down the loins, seat, and back of legs, round the insteps, and finally, while the trunk is being raised again, up along the shins and thighs, where the hands leave—in order to recommence the above-described downward stroke from the collar-bones as soon as the body has been bent backwards once more.

How grown-up girls should perform the rubbing of the front of the body is explained in "My System for Ladies."

The first degree.—The moving of the trunk should be done gently and steadily all the time. The hands may assist in the contraction of the stomach by a quickly-performed pressure just before being carried round to the back.

The second degree.—The raising of the trunk should be done with a jerk, but the bending forwards during exhalation should always be performed rather slowly. The contraction and distension of the abdomen should now be performed by means of the abdominal muscles only. Everybody ought to learn from childhood how to achieve complete control over the abdominal muscles. This degree should be used by girls only when exceptionally strong.

Fig. 107 gives a side view, and Fig. 108 a front view of different phases of this exercise. Several of the Breslau boys make the mistake of standing with feet together, while the 7th boy has his feet rather too far apart. The 5th boy is not bending backwards properly, and the 8th need not lift his hands so high up to reach his collar-bone. The 1st and the 6th are about to press in the abdomen.

Breathing Exercise, with arms outstretched.

Exercise No. 14.

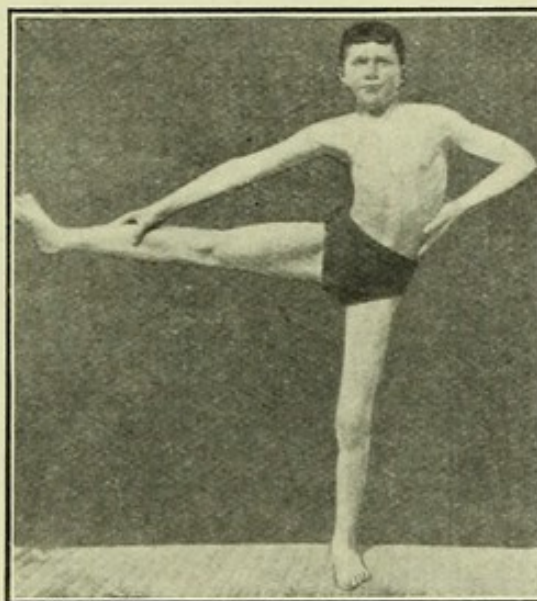


Fig. 113.

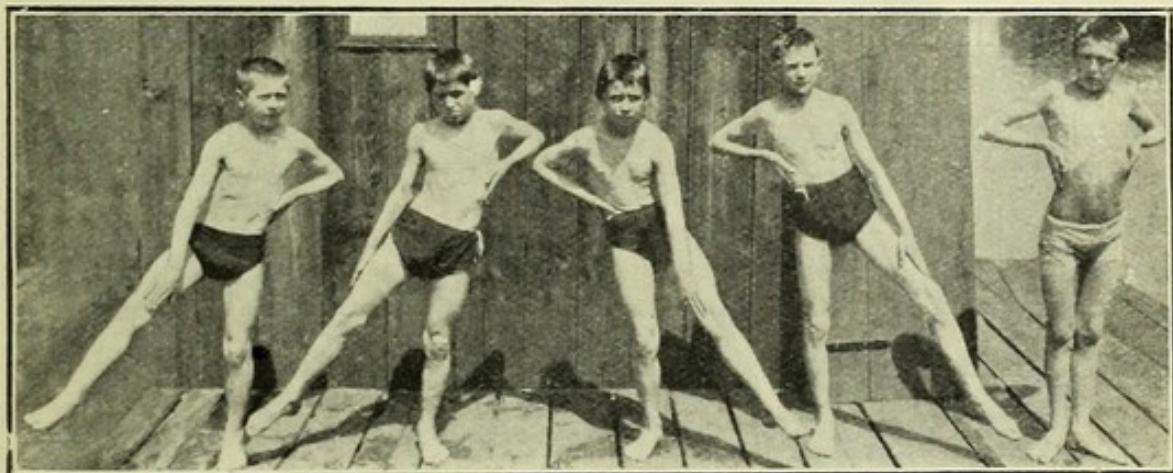


Fig. 114.

^{an} **EXERCISE No. 15.**—Knee-raising with rubbing of legs and front and back of trunk.

From the position "at attention" the knees should be bent and lifted up as high as possible in front of you, 16 times in all, the right and left knee alternately. The instep should be straightened each time; it is a mistake to lean forwards when the knee is raised.

The first degree.—The massage is done as follows: Each time a knee is raised, both hands should grasp the corresponding heel, and while the leg is again straightened the hands should stroke upwards along the sides of it. Inhale while this rubbing is performed and exhale during a little pause, which should occur when the pupil is standing at attention for a moment after each knee-raising.

The second degree.—The rubbing of legs should be followed each time by an uninterrupted stroke up over the abdomen and the breast to the collar-bones, where the hands should slip over to the sides and leave the body. After which the hand corresponding to the leg which has just been moved should be swung round upon the back as high up between the shoulder-blades as possible, from which position a downward stroke is made with the back of the hand and the lower part of the arm over the back, loins, and seat. Inhale while the leg and the front of trunk is being rubbed, exhale during the rubbing of the back. How adult girls ought to do the latter part of the massage is explained in "My System for Ladies."

Fig. 115 shows how to finish the first stroke (*Per*) and how to start the back stroke (*Ib*); while in Fig. 116 the 1st, 3rd and 5th boys are rubbing their legs. But the two former are bending rather too far forwards. What the 2nd and 4th boys are doing, I do not know. They are certainly not performing Exercise No. 15!

Breathing Exercise, with arms outstretched.

Exercise No. 15.

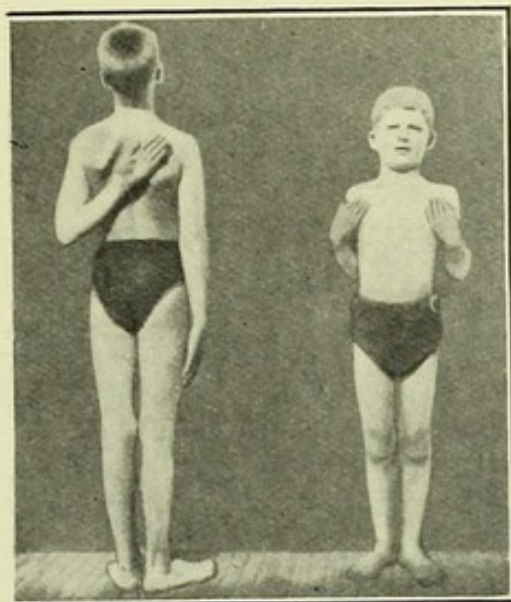


Fig. 115.

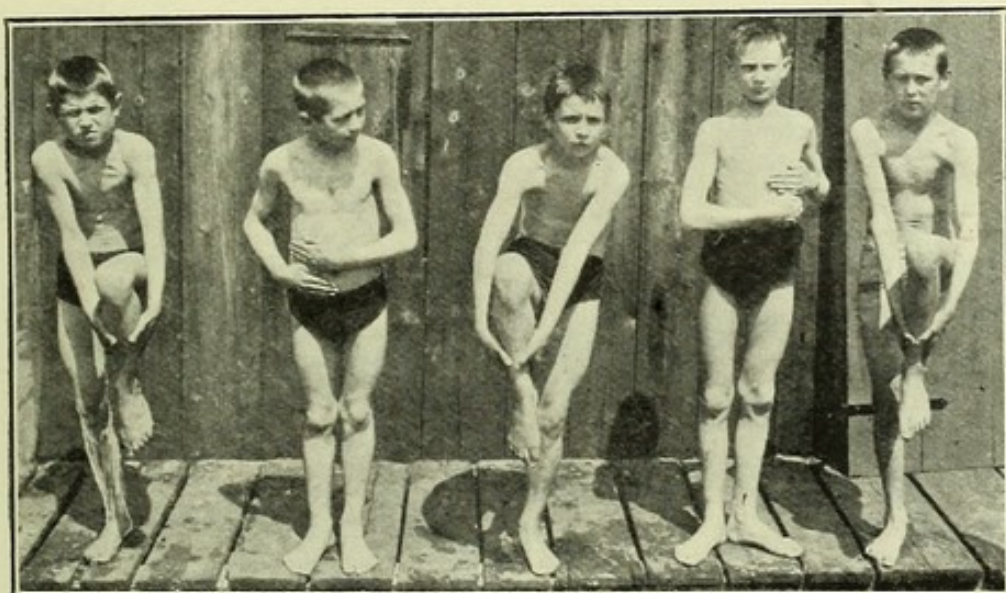


Fig. 116.

EXERCISE No. 16.—Trunk-bending sideways, with rubbing of sides of body.

The upper part of the body should be bent sideways, as far down as possible, 20 times, alternately to the right and left. The massage should be performed as follows: To begin with, the palms should be placed against the hips, the fingers pointing downwards. Each time the trunk is bent to one side, the corresponding hand should at the same time stroke downwards over the hip and the outer side of the thigh as far down as possible by straightening the arm, while the other hand should stroke upwards over the opposite flank, going as high up as possible by bending the arm.

The first degree.—The movements should be done slowly, corresponding with a steady respiration. Inhale while the trunk is being swung from one side to the other; exhale while it is being swung over in the reverse direction.

The second degree.—The trunk may now be flung quickly to right and left alternately. The pupil will eventually become so strong as to be able to perform three or four double bendings during one deep and complete respiration.

Fig. 117 shows the correct preliminary position (*Per*) and the side-bending (*Ib*). The 3rd and 4th of the Breslau boys in Fig. 118 are fairly correct, excepting as to the position of their heads. But the 1st and 2nd boys should have had their heels together, and the 5th the hands a little higher up.

Breathing Exercise, with arms outstretched.

Exercise No. 16.

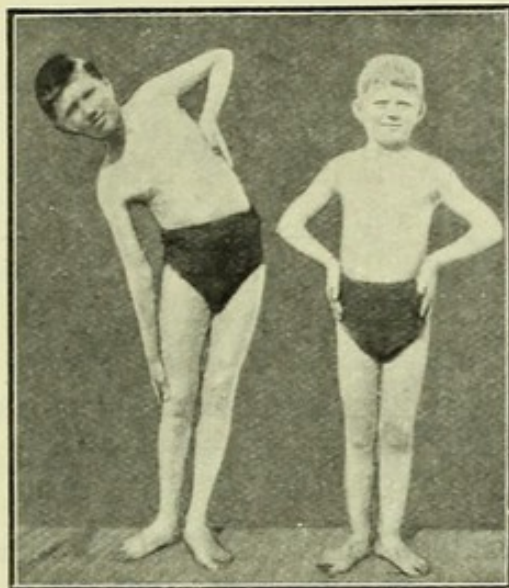


Fig. 117.

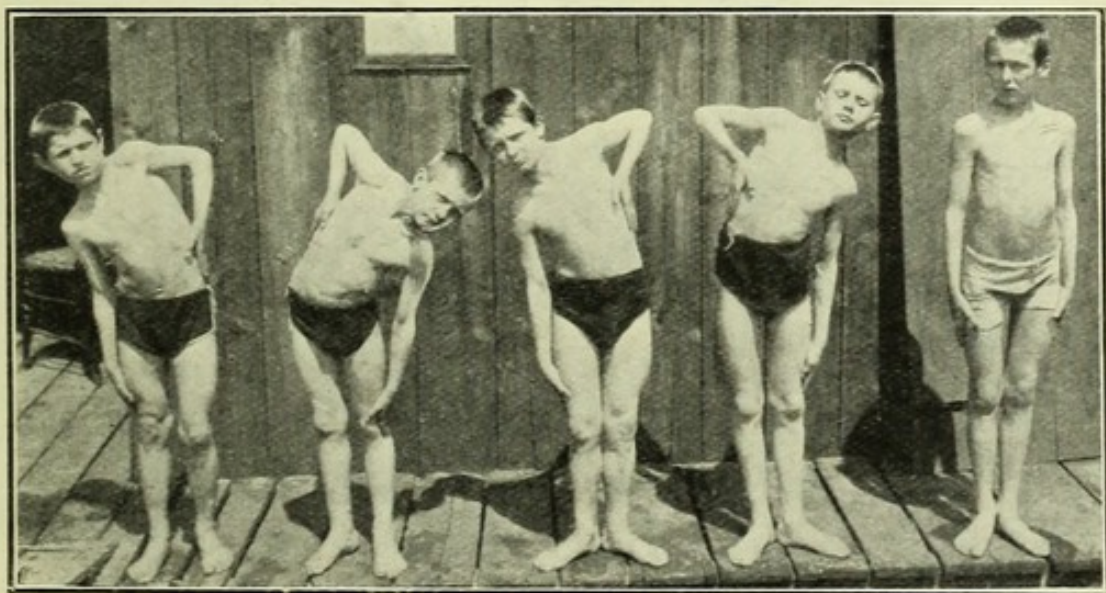


Fig. 118.

EXERCISE No. 17.—Trunk-twisting, with rubbing of the breast.

The upper part of the body should be twisted round as far as possible, 20 times, alternately to the right and left. The feet should be placed well apart and remain firmly on the floor; the twists should be performed from the waist only and not by moving the feet. The massage is done as follows: Each time the trunk is twisted from the one side to the other, both palms should stroke across the breast in an opposite direction to that in which the trunk is moving. The massage would have no effect whatever if the hands were to travel the same way as the trunk moves. The one hand should stroke to and fro above the nipples, the other just below them. But in order to avoid creating any unevenness in the carrying of the shoulders, the same hand should not always be uppermost. The hands may change about when half the number of rubbings have been made, or their position may be varied each day.

The first degree.—The movements must be done slowly, corresponding with a steady respiration. Inhale when the trunk is twisted in the one direction, and exhale when it is twisted back again in the opposite direction, and so on.

The second degree.—The trunk may now be twisted quickly to right and left alternately. By degrees the pupil will be able to do two or three double twists while performing one deep respiration.

In Fig. 119 *Ib* shows how the movement is started (or finished) and *Per* shows a middle phase. The first three of the Breslau boys in Fig. 120 are fairly correct. The hands might be held slightly higher upon the breast. The 4th boy is altogether wrong (compare the pose of *Per* on Fig. 119).

Adult girls should study "My System for Ladies" to see how this exercise is arranged for them.

Breathing Exercise, arms outstretched.

Exercise No. 17.



Fig. 119.

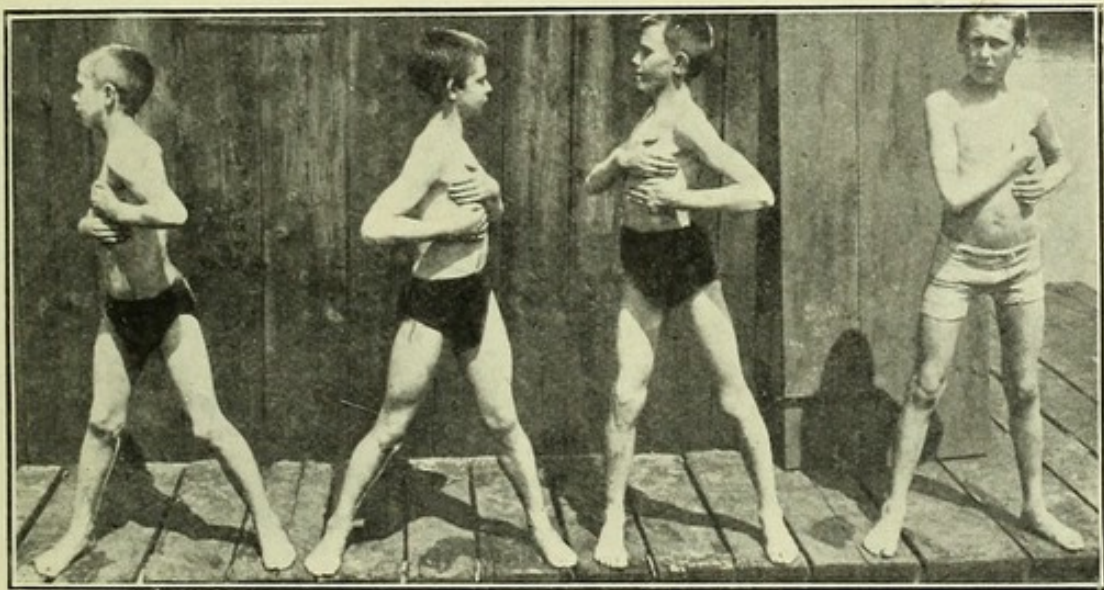


Fig. 120.

**EXERCISE No. 18.—Trunk-leaning backwards and forwards,
with rubbing of breast and loins.**

The upper part of the body should be inclined backwards and forwards 20 times alternately, without curving or bowing the back in the forward swing, and without bending too far backwards in the backward swing. The massage should be performed thus: A downward stroke over the breast and hips should be made each time the trunk is leaned backwards, and another downward stroke over the loins and seat as soon as the trunk has been leaned forwards. These downward strokes are almost identical with the first parts of the corresponding strokes of Exercise No. 11.

The first degree.—The movements must be done slowly, corresponding with a steady respiration. Inhale while the trunk is inclined backwards, exhale during the reverse movement, and so on.

The second degree.—The trunk may now be flung quickly forwards and backwards. The pupil will eventually become so strong as to be able to perform three or four double flings of the trunk during one deep and complete respiration.

Adult girls should study the explanations as to how the front of the body should be stroked which are given in "My System for Ladies."

Fig. 121 shows the correct positions at the beginning and end of each movement, whereas most of our young Breslau friends on Fig. 122 show how No. 18 should *not* be performed.

Breathing Exercise, with arms outstretched.



Exercise No. 18.



Fig. 121.

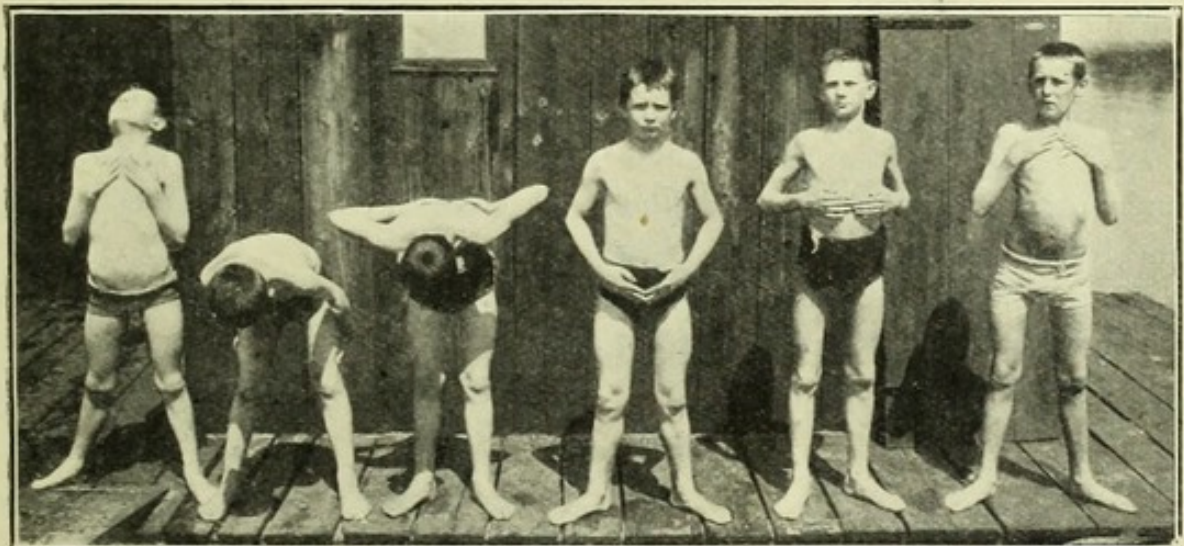


Fig. 122.

APPENDIX.

In "My System for Ladies" I published a few letters received from lady followers of "My System" in sixteen different countries: England, America, France, Belgium, Holland, Switzerland, Germany, Austria, Hungary, Denmark, Norway, Sweden, Finland, Russia, Spain, and Greece. I find there is no room to repeat these letters in this volume.

I have hitherto received some fourteen thousand letters of thanks and appreciation from people resident in all parts of the world. Yet these 14,000 correspondents of mine represent, of course, only a small proportion of all the followers of "My System," the number of them now being millions. More than half-a-million copies of my first book have been sold, it having been translated into 14 different languages. But in many cases a whole family of several members, together with their friends, have learned to do the exercises from one and the same copy of the book; while numerous teachers have, each of them, instructed hundreds of pupils also by means of a single copy.

And, again, it has come to my knowledge that the richer and the more socially distinguished of the followers of "My System" are those who have been the least disposed to write to me and thank me for the benefit which they have derived from the practice of it. I am in a position to know that many persons of rank on the Continent, including several members of Royal and Imperial families, use "My System."

Many hundreds of the letters of thanks I have received mention the good which "My System" has done to their children.

THE AUTHOR.



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