Physical training for women by Japanese methods / by H. Irving Hancock.

Contributors

Hancock, H. Irving 1868-1922.
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Publication/Creation

New York and London : G. P.Putnam's sons, 1904.

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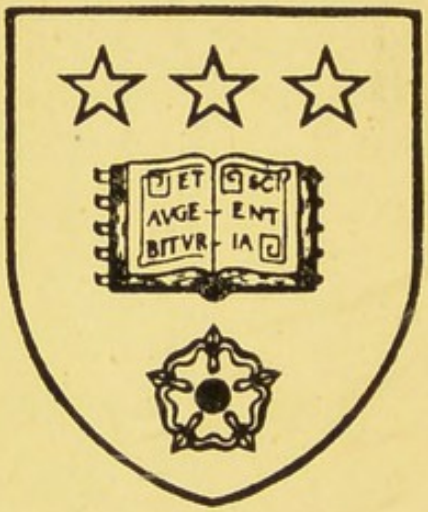

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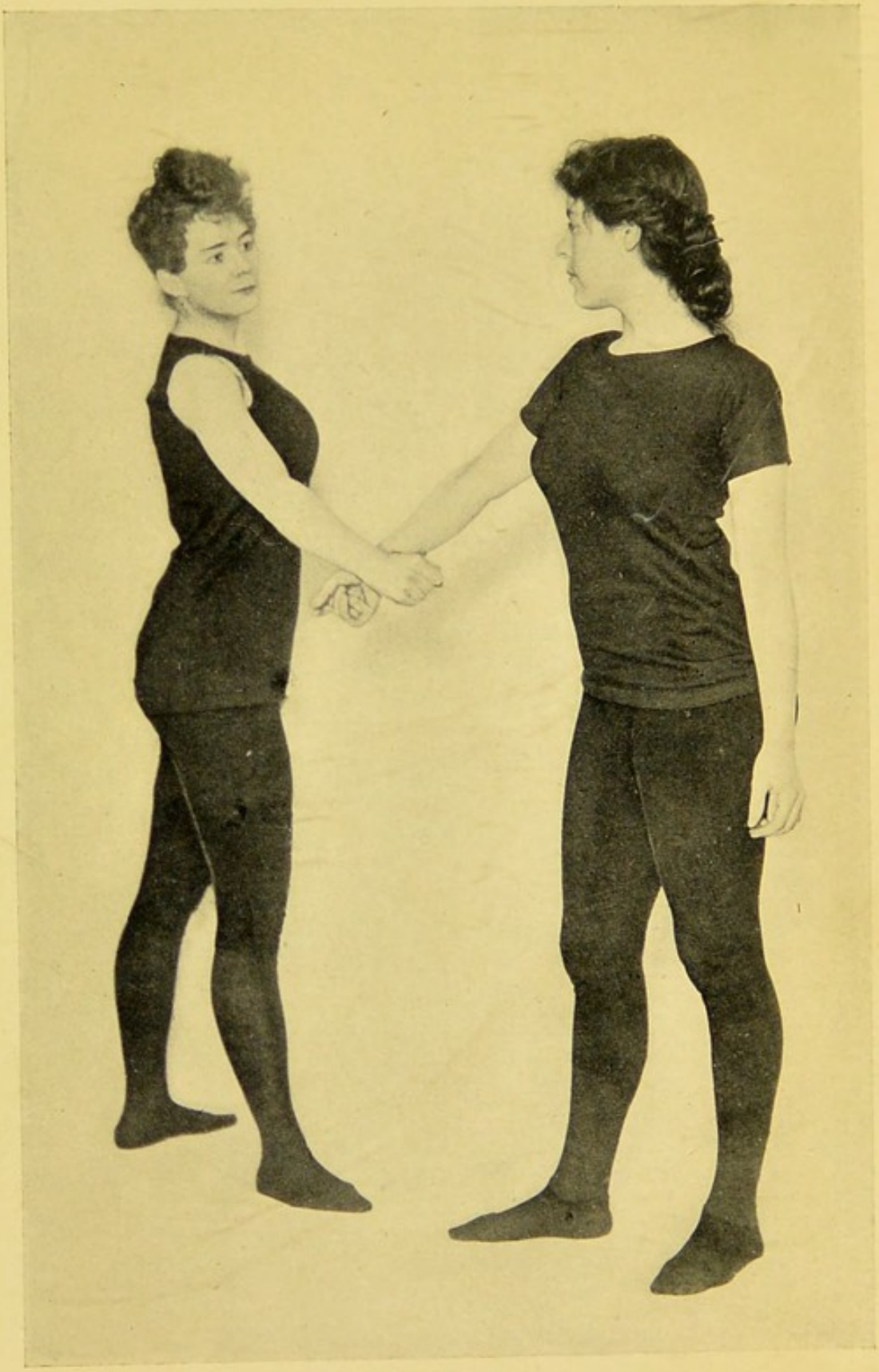


No. 1. RESISTANT WRIST WORK.

Physical Training for Women

By Japanese Methods

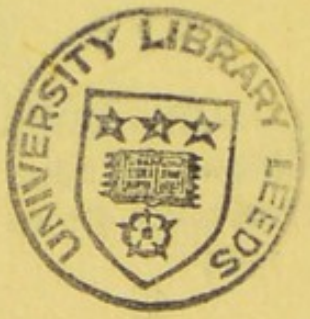
BY

H. Irving Hancock

Author of "Japanese Physical Training"
"Life at West Point," etc.

Illustrated from photographs by
A. B. Phelan

G. P. Putnam's Sons
New York and London
The Knickerbocker Press
1904



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TO THE

AMERICAN WOMAN

AND TO

HER ENGLISH SISTER

THIS VOLUME IS DEDICATED BY

THE AUTHOR

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INTRODUCTION

IN this volume the author has endeavoured, with painstaking care, to make plain the principles of the kind of athletic work that has resulted, undoubtedly, in making the little Japanese women the strongest and most cheerful members of their sex to be found anywhere on earth.

It is not claimed that the application of *jïu-jïtsu* will bring a dying woman away from her bed and give her the best of good health at once. Such an achievement would be termed a miracle. But *jïu-jïtsu*, if followed out in all its details, will make a weak woman stronger, and will make of any reasonably strong woman one who is the physical peer of any man of her own size. The day has gone by when women prize weakness as a dainty attribute of their sex, and the science of *jïu-jïtsu* points out the path for the new physical woman to pursue.

BE STRONG! There is neither grace nor beauty in weakness. Nor is there, when a woman possesses very ordinary strength, any excuse for her being weak. On almost the poorest of foundations it is possible to build up the most vigorous health.

In Japan there are, to-day, six different systems of *jiu-jitsu* in vogue. The movements differ somewhat, but the underlying principles are the same in each. The author, who has been trained under such renowned teachers of the science as Matsuda, Yako, and Inouye, has studied all of the systems, and the work presented in this volume is intended to be a combination, a blending, of all that is best in *jiu-jitsu* for women's especial training. Inouye San is a splendid master in the tricks of combat; Matsuda San is unquestionably the Japanese instructor who is best versed of all in the anatomical principles of training the muscular body; Yako San, at the age of seventy-five, was a magnificent exponent of what one may acquire through the life-long practice of *jiu-jitsu*.

He met on the floor all of the best of the

younger Japanese experts, and defeated them invariably. His defence was performed with the utmost gentleness. His sole aim was to show how useless it was to attack a man of his skill and strength.

Women who attend the *jiu-jitsu* schools in Japan are given the regular course with, in addition, training for their own needs. Combat enters much into the work, but in this volume it has been aimed only to show the feats that make for womanly strength. The woman of ordinarily good condition, who takes the trouble to master them, will have no occasion to complain of occasional weakness or ill-health. After every practice bout she will feel exhilarated. After a little while any tendency to weakness will have disappeared.

H. Irving Hancock.

New York, February 27, 1904.

PHYSICAL TRAINING FOR WOMEN BY JAPANESE METHODS

CHAPTER I

THE BASIS OF THE JAPANESE PHYSICAL TRAINING THAT IS INTENDED ESPECIALLY FOR WOMEN—ABSURDITY OF THE EXISTENCE OF A "WEAKER SEX"

ONE of the phrases that should be stricken from the English language is, "the weaker sex." After a long experience in Japanese athletics the writer has no patience with women who consider that merely because of their sex they should be weaker than men. In Japan the women are not weaker, and in this country they have no right to be. A Japanese woman is generally the physical peer of a man

of her own race who is of the same age and height, and especially when weights are about equal.

This is due to the fact that the women of the Land of the Rising Sun exercise in about the same way that the men do, and devote fully as much time in the endeavour to gain strength. Of course there are some cases of insufficiently developed physical power among the women of Japan, but these instances are so rare that the woman of *Dai Nippon* marvels that there should be such a word as "weakness."

From remote antiquity there has existed in Japan a system of bodily training known as *jiu-jitsu*. Its age is established by reasonably authentic records as being at least twenty-five hundred years; undoubtedly the science is older than that. In feudal Japan knowledge of the science was imparted only to the *samurai*—and only under the strongest oaths of secrecy. The *samurai* were the men—and women—of the privileged military class. The men did the fighting, but the women, who were to rear the sons of the next generation,

were required to understand all the principles of *jiu-jitsu*. In the initial stages of the training it was considered always advisable to have a boy and a girl contestant who were as nearly equal in age and height as was possible, but the girls entered the arena upon equal terms with the boys—and proved their fitness so to do. Grown men and women practised at *jiu-jitsu*, nor did any woman find it necessary to take refuge in her sex. She did not need to. Other conditions being equal, she could show an amount of strength that paralleled that of her husband or brother.

Ultimately *jiu-jitsu* is a highly scientific system of rapid and convincing attack and defence. Before the stage of combat is reached, however, much work must be devoted to acquiring a knowledge of the nerves and muscles of the body, such as comes from well-sustained preliminary practice. This preliminary practice will strengthen every portion of the body to its utmost, and will give to any woman the greatest strength of which she is capable.

Jiu-jitsu is no longer the sole property of

the aristocratic fighting class of Japan. When the present Emperor came to the throne he abolished all feudal rights and customs. Japanese who are descended from the *samurai* are proud of their blood, but they have no status as a class. *Jiu-jitsu* is taught, now, to any subject who desires to learn it. In the Empire there are hundreds of schools where the science is taught, and there are thousands of instructors—millions of graduates. In these schools women frequently enter the lists with men. An exciting time is looked forward to always when it is announced that a woman champion will contest with a male expert.

Some years ago I had the pleasure of working in a *jiu-jitsu* school in Tokio. I had had previous instruction in this country, and in Nagasaki and Yokohama, and the Tokio man was engaged in putting me through a course of the advanced tricks of combat. My muscles at that time were in as good condition as I could have desired, and my instructor complimented me upon my work. Then he suddenly asked:

"You like see what Japanese woman can do?"

I assured him that it would give me great pleasure to have such an exhibition. There were half a dozen smiling little Japanese women among the spectators. My instructor spoke to one of them, who bowed and disappeared. After a little while she re-appeared, and came running across the floor in a gymnasium costume consisting solely of short trousers and a jacket. She was laughing as she approached, and her little bare feet made a swift, rustling sound on the straw of the padded mats with which the floor was covered. It did not require an expert's eye to note that hers was the body of a trained athlete. If any American woman believes that perfect physical training brings out ugly, "bumpy" lines, she should see such a little brown sprite as I then saw—a supple young woman, bounding with the vim of life, and graceful in every line of contour.

While I stood looking at her, the little woman halted before me, made a polite bow, and then backed away, in the manner that is common to students of *jïu-jïtsu* when inviting combat. She was fully six inches shorter

than I and at a great disadvantage in point of weight.

"Surely you don't want me to struggle with her?" I asked my instructor.

"Oh, yes; try," came the smiling answer. "Don't be 'fraid. She one of my old pupils. She what—what you say?—hard as board."

The little woman stood some distance from me, still smiling, while the spectators looked on with interest. The little woman again approached and bowed. There was no help for it. I bowed, and we backed off a little way, then approached each other sinuously, each looking for an opening. There was a clinch that lasted, as nearly as I could judge, about five seconds. Three seconds later I was compelled to pat the floor in token of surrender. There were five bouts in all, of which I secured the distinction of winning one. Then my instructor spoke to my smiling little antagonist, who walked over to the side of the hall. Next he turned to me and beckoned me into another room.

"She very good," observed the teacher, a statement in which I was quite willing to con-

cur. "But I not teach her too fast. Best to go slow. You have not so much time. I show you things now."

There followed a half hour of rapid instruction, in which I gained more of the science of *jiu-jitsu* than ever I had expected to acquire in such a length of time. Finally my instructor suggested:

"Now you go back and try."

My late antagonist was waiting for me. She came forward as smiling as ever, made her little bow, and retreated slowly. When we met she took a clever hold, but went to the floor and patted it as a sign of surrender. There were a dozen bouts in all, in every one of which I was now victor. After each fall the little Japanese woman rose, took two or three deep breaths, and then gave a signal for renewed attack. The new work that I had learned in half an hour baffled her. It was work at which she would be required to devote at least the next six weeks, for the Japanese instructors do not believe in passing from one step to another until the former has been mastered thoroughly. To me the last instruction

had been given rapidly, since my stay in Japan was to continue but a little while longer.

It is this principle of mastering one step thoroughly before the next is undertaken that the writer wishes to impress most deeply upon all readers among American women. Nothing is to be gained by haste; much is to be lost by it. The elementary principles that underlie the whole science of *jiu-jitsu* are directed to the creation of strength and health. It is as easy for a woman to build up what is considered in this country as surprising strength for her sex as it is to eat a breakfast —but it takes much longer to do the former thing. If American women would take generally to the practice of the elementary work of *jiu-jitsu* feminine weaklings would be as rare in this country as they are in Japan.

The exercises that are to be described in these chapters are those that have been taken from the *jiu-jitsu* work with especial regard to the needs of women who are not as strong as they should be. In the regular Japanese course women take the same part as do men, but the exercises here offered are those in

which Japanese women receive special training, and are those best adapted to the present purpose of the author.

In any kind of athletic work that is to produce the best results the selection of the right costume counts for much. It should go without saying that corsets cannot be worn while exercising. Loose-fitting garments of any kind may be worn, but when two women are to practise, without spectators, the most convenient costume is one consisting of a combination bathing-suit and stockings. If the addition of a short skirt is desired the necessary movements will not be hampered thereby. If the students do not care to practise in stocking feet, very low-heeled shoes of the gymnasium pattern should be worn. Athletic work in high-heeled slippers or shoes would be absurd.

Now, for the first of the exercises. Take a look at photograph number one. Study the illustration and this text until it is reasonably clear how the work is to be performed. The two students stand at each other's right side, a little way apart, in such attitude that the

clenched right hands of both are held about eighteen inches from the body and just below the line of the hips. The right wrists of the two antagonists are crossed on the inside. Now, one of the two, who may be designated as the assailant, exerts all the strength she can employ without fatigue to push the other's wrist backward, swinging the one on the defence as far around as the latter can go without losing her balance. The right arms of both are held as rigidly tense as is possible. The assailant, while gradually exerting this pressure, walks around the one on the defensive until a half circle has been covered, while the latter, as far as possible, uses her feet only as pivots.

In this work it is well to arrange in advance who is to be the assailant, and she should be allowed to win the victory, although the contestant on the defensive should exert all the resistant pressure that can be used without preventing the assailant's success. As soon as the victory has been won assailant and victim should change places and try the work once more. After a few deep breaths the same feat

No. 2. THE "STRUGGLE," "WALKING-BEAM" STYLE.

should be tried with left wrists opposed, the contestants standing, of course, at the left of each other. At first, one right and one left wrist attack for each of the contestants is as much as should be attempted. The amount of this work may be increased very gradually as the strength of the student grows. A similar feat should follow, with the insides of the middle forearms crossed, and then with hooked elbows. Last of all, the middles of the upper arms may be crossed in the same way. At all times it should be understood beforehand who is to be the assailant, and that the assailant should win, but that the one on the defensive should exert as much resistant pressure as is needed to all but prevent the victory of the assailant.

There is one fault that is to be found with nearly all American students of *jiu-jitsu:* After a little practice they find so much exhilaration in the sport that they are likely to overdo in the exercises. There are two safe indications of over-zeal—palpitation of the heart and panting. Either of these symptoms proves that the student should stop work, rest, and breathe

deeply, this to be followed by lighter exercise when it is resumed. Danger signals of the kind mentioned must be heeded at all times, but if the work is begun lightly, and is increased moderately, just as the strength grows, not even the slightest discomfort can result.

In photograph number two is shown the "struggle." Beyond doubt it is worth more to the student than is any other single exercise known to the teachers of *jiu-jitsu*. It is so ingeniously arranged that it strengthens every portion of the body at once. There is not an important muscle that does not share in the benefit. Let the two contestants stand facing each other, and a little apart. Extend the arms sideways on a level with the shoulders. Let each clasp the other's opposing hands. The feet of each should be as far apart as is possible. As soon as this position is secured, the contestants throw themselves forward so that the chest of one presses strongly against that of the other, with heads to the left of each other's, no other portions of the body to touch.

Now, putting in as much strain as is possible without causing extreme fatigue, let the con-

No. 3. RESISTANT NECK WORK.

testants struggle against each other, each striving to push the adversary to the wall. The "battle" should be fought inch by inch. While the struggle is going on the arms should be raised alternately up and down on either side; when the clasped hands on one side are up those on the other side should be down. When up the hands should be brought just a little above the top of the head; when down the hands should be just above the level of the waist-line. The arms should be moved vigorously up and down, and the whole exercise is one that is to be taken with snap and vim. When there is great disparity of strength between the two contestants victory should be arranged before the struggle begins. The stronger contestant, when on the defensive, should exercise just enough strength to make success difficult but certain for the weaker one. As soon as this exercise has been mastered it will be found to be a most exhilarating tonic in all its properties. It is a vitaliser and causes the blood of a weak woman to circulate in an unwonted manner.

Resistant neck exercises are depicted in

photograph number three. Let one of the contestants be designated as the victim and the other as the assailant. They stand facing each other. The victim places her hands on the other's hips with all the arm muscles tense. The greatest tenseness should be in the wrists. The assailant places the palms of her hands on either side of the face of the victim, finger-tips up, in such manner that the tips of the forefingers rest just at the base of the temples, while the thumb tips press in side by side, just under the centre of the chin. This grip should be taken firmly enough to hold the victim's face as in a vise.

Now, the assailant twists the victim's head so that the latter's chin is forced as far as is possible over the latter's right shoulder. All the while the victim resists by trying to force her chin around over the left shoulder. Then the exercise is reversed by an attempt on the part of the assailants to force the victim's chin over the left shoulder, the victim resisting to the right. No better work than this can be devised for strengthening the cords of the neck—a most important point at which to possess strength.

No. 4. RESISTANT SHOULDER WORK.

A valuable variation in this work is found when the assailant throws her left hand around the victim's neck in such fashion that the finger-tips dig into the spinal column just at the base of the skull, while the thumb presses into the centre of the throat. The assailant's open right hand is forced under the victim's jaw, with the thumb under the victim's right ear and the fingers under the left ear. As soon as this grip is secured the assailant forces the victim's head as far backward as may be done, the victim resisting all the while. When the head has been pushed back as far as may be done, the victim gradually brings the head forward against the resistance of the former assailant.

In order to "square" and strengthen her shoulders the Japanese woman student of *jiu-jitsu* is taught to rest her open hands upon her sides at the lower ribs. The elbows are brought forward then as far as is possible. In this position the young woman bends over backward, raises her shoulders all she can, throws them up as high as they will go, and twists the shoulders upward and over backward

in a gradual, semi-rotary movement. By the time that the backward bend has been carried as far as it can be done the elbows will be at or near a level with the hips. From this position the student recovers slowly to starting position. This movement is repeated several times—always *without* hurry—during each lesson that is aimed at the development of the shoulders. In photograph number four one model is shown at the starting point of the exercise, while the other illustrates the position at the moment of the utmost bend backward.

It is supremely important that a woman should be strong and supple in the small of her back. The two contestants, as is shown in photograph number five, should stand facing each other with feet spread wide apart. The assailant throws her arms around her intended victim's waist, clasping her own hands so that the interlaced fingers rest just over the base of the spine. The victim may allow her own hands to hang at her sides, or she may rest them upon her companion's arms. Now the so-called victim bends over backward as far as

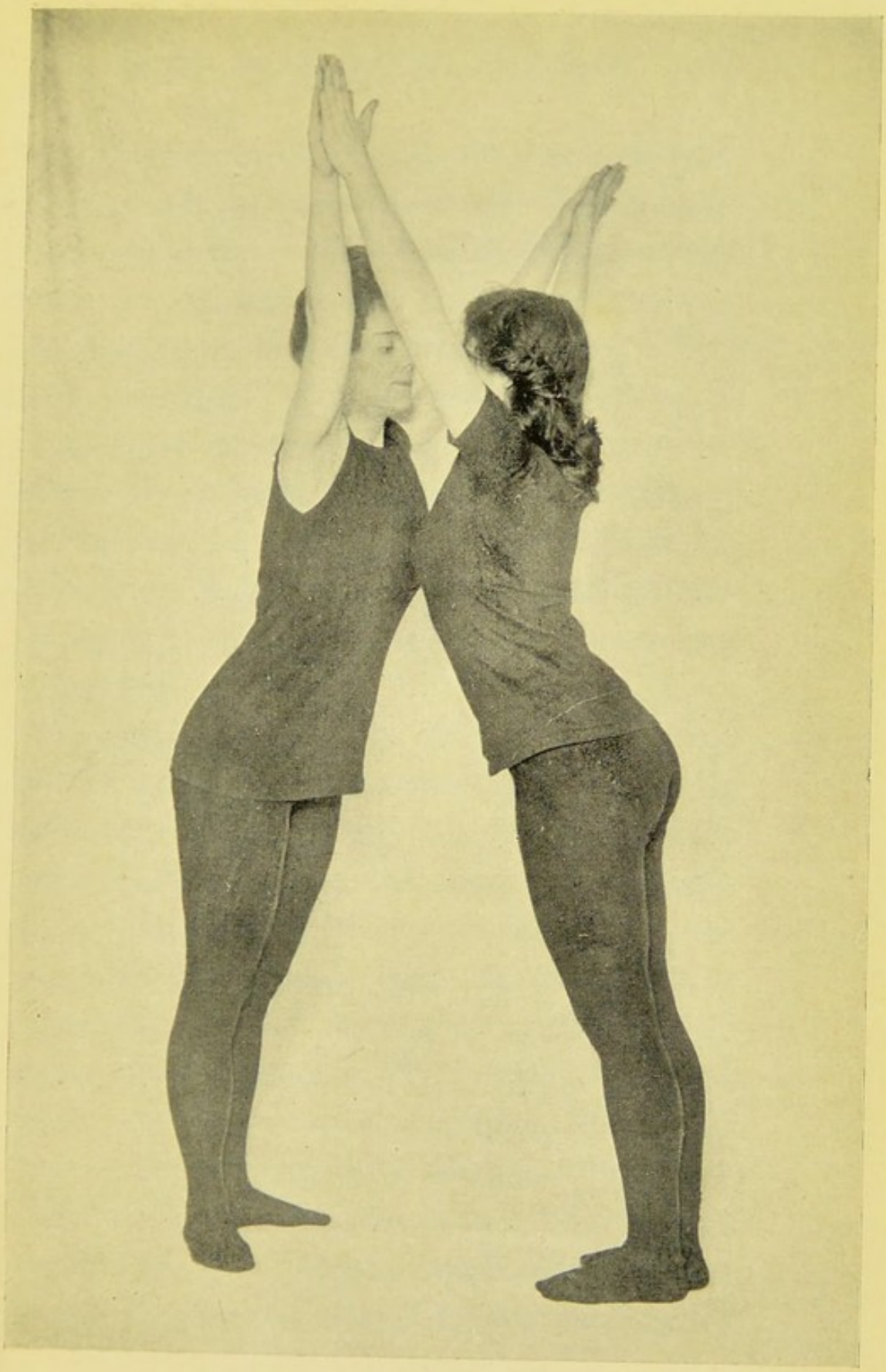
No. 5. RESISTANT BACK WORK, NO FALL TO BE ACCOMPLISHED.

she can, doing so very gradually, and relying upon her antagonist to support her. Every muscle that is brought into play must be made tense during the exercise. When the backward bend has been carried as far as it can be done, the assailant should gradually draw the victim back to upright position, the latter resisting all the while. It requires several practice bouts to make one perfect in this exercise.

By the time that the student has gone this far — always provided, of course, that each step has been mastered patiently and thoroughly—a variation of the "struggle" is employed. The two contestants face each other, standing with feet far apart. The hands are raised a little above the level of the head, and the opponents press both flat palms against the opposing palms. (See photograph number six.) In this position both lean forward, with no portions of the trunks touching, and each endeavours to force the other across the room to the wall. Next, single arm work is taken up, one adversary employing the left palm against the other's right. In sequence the

assailant uses the right palm against the victim's left palm. A most interesting variation of this work is found when each contestant places the inside of her middle right forearm over the back of her own left forearm in such manner as to form the letter "x." The palms are outward and the finger-tips up. Now the adversaries oppose right palm to right palm and left palm to left palm, and the struggle is carried on as before—always without allowing any portions of the trunk to touch.

The woman who wishes to prove the possession of strength must have splendidly developed wrists. In fact, the Japanese value most the muscles that are strong between the base of the hand and the bend of the elbow. Swelling muscles in the upper arm do not count for much with these sturdy, healthy little brown people of *Dai Nippon*. The wrist is the portion of the body that may be developed most quickly. In the best exercise for this part of bodily training Japanese women are taught to stand facing each other with the arms extended downward in front so that the



No. 6. RESISTANT WORK WITH HANDS OVER HEADS.

hands are about on a level with the waist-line. The contestants clasp hands with fingers interlaced, whereupon the assailant endeavours to twist her victim's hands slightly upward and decidedly over and outward, the victim all the while resisting. The movement is shown in photograph number seven. When the wrists of the victim have been turned as far outward as they can be forced, the assailant begins to twist them inward in reverse manner, encountering all the resistance of which the opponent is capable.

In these exercises the writer has described all the work that any woman should attempt to master within a month if she wishes to become truly strong in the right and moderate way. If all the directions are patiently, methodically followed there can be no doubt as to the results. By way of system, in pursuing these exercises, the writer wishes to make the following suggestions: The work shown in this chapter is designed for a preliminary course of thirty days. The resistant wrist and arm exercises depicted in photograph number one should be practised almost

exclusively for the first three days. During the next three days the neck work should be taken up in connection with the wrist and arm work, about equal time being given to each. The "struggle" work should be taken up on the second day of the course, but should not be practised too much until the neck work has been gotten well under way.

Each one of the succeeding exercises should be taken up at intervals of three days each—and in every exercise bout all the work that has been tried before should be repeated from time to time. When all of the seven exercises herein given have been well learned the balance of the month should be devoted to the successive practice of them all.

If one practice bout a day can be had, it is better to take half an hour in the late afternoon, or in the early evening. Exercise before meals should terminate half an hour before the time of eating. Exercise after meals should not begin until an hour and a half after eating. Where possible it is better to take a twenty minutes' bout in the morning and another in the afternoon or evening.

No. 7. THE UP-AND-OVER MOTION OF THE WRISTS.

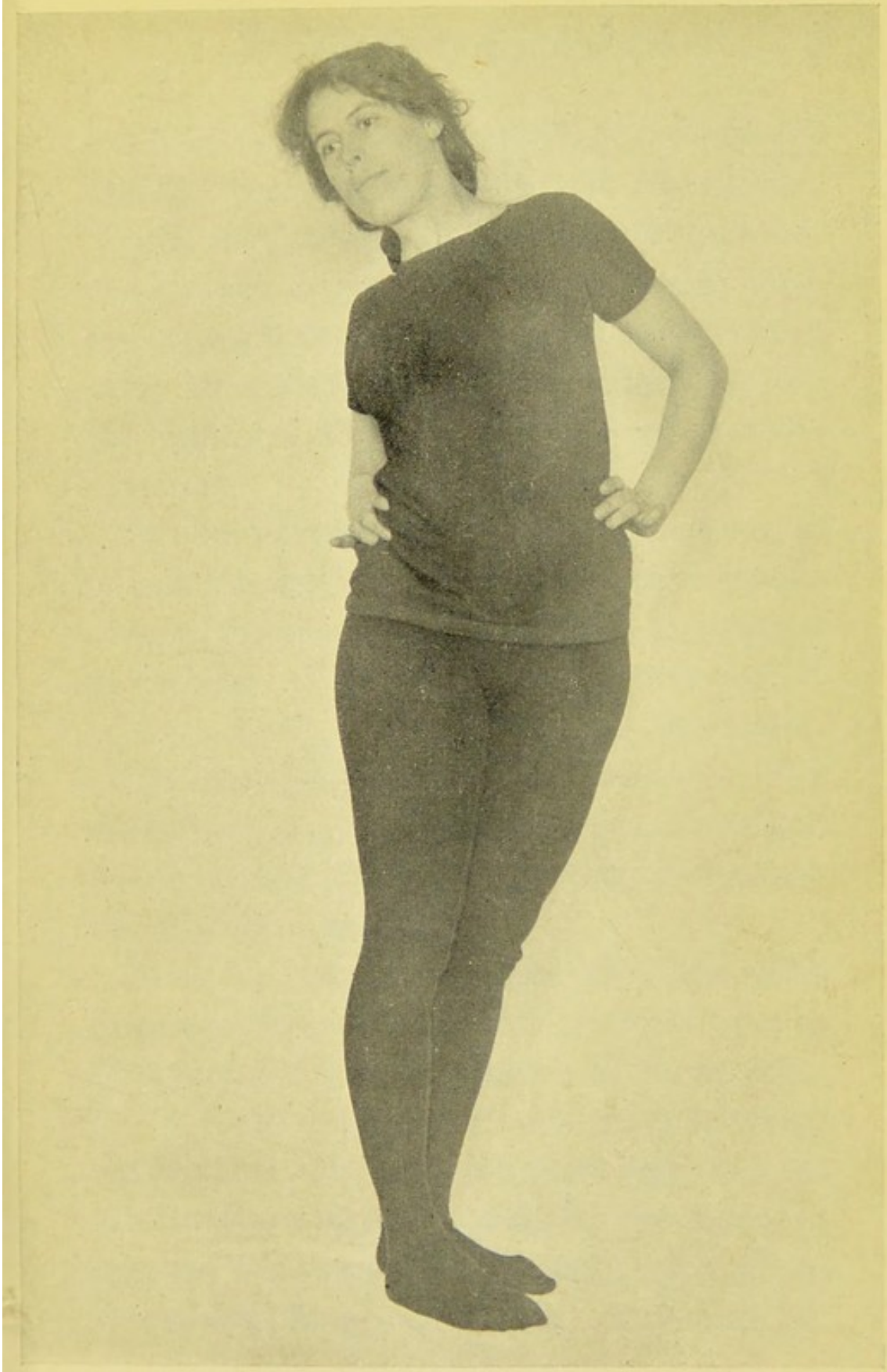
There is no need for any American woman who is not nearly bedridden to be weak if she will follow the course that makes her Japanese sisters strong. Yet nothing can be accomplished unless the reader goes at each task persistently and with the full determination to win, through actual work, all the strength that is hers by right.

CHAPTER II

ADDITIONAL PRELIMINARY EXERCISES FOR THE DEVELOPMENT OF THE BODY

In the average school of instruction in Japan the girl student is not allowed to take up additional work until she has spent something like a month in mastering, by constant, daily exercise, the work described in the last chapter. The work that is to be offered now is somewhat more advanced. It is supposed to represent the second month's addition to the work that has been explained already—but the work insisted upon for the first month, like that described in this chapter, should be kept up all the time—the student so dividing the exercises that as many forms of them as are possible may be taken up in each practice bout.

In this special system of training for women it is the intention of the Japanese instructors, while developing the whole body, to give espe-



No. 8. RESISTANT WORK AROUND HIPS.

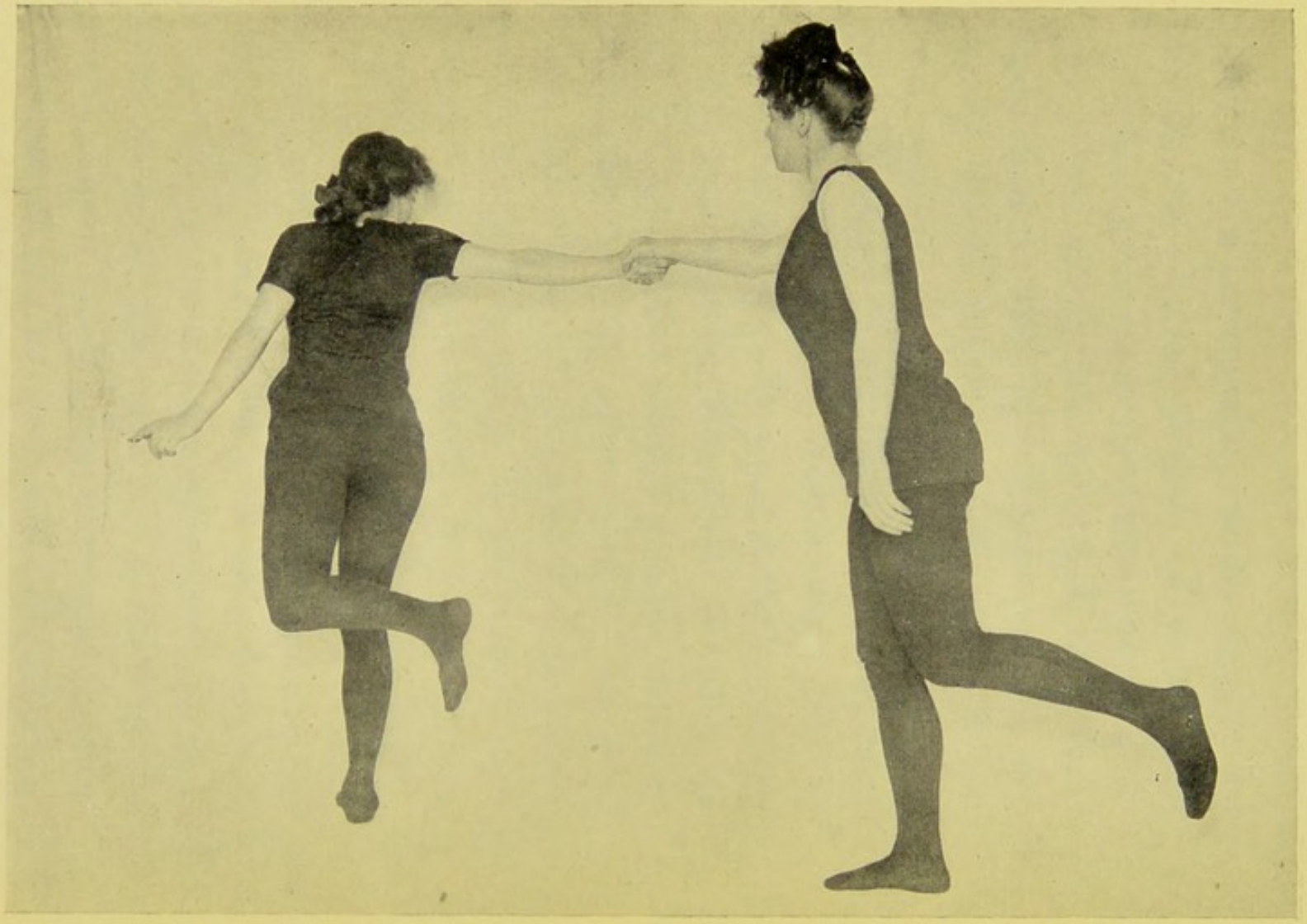
cial heed to the training of all of the muscles that lie between the thigh and the breast. Within this compass all the organs are located, and the well-devised plan of the Japanese aims at the development of the organs. Incidentally every other muscle of the body is brought into the right sort of play by one or another of the exercises.

At about the beginning of the second month of training the Japanese woman will be taught some such exercise as the one that I am about to describe. The exact form does not matter, so long as the student carries out the theory of the exercise in a practicable manner. The student of *jiu-jitsu* is taught always to think out for herself all of the variations of an exercise that are possible.

Place the hands just over the hips, with fingers resting forward on the sides and thumbs backward, the familiar position of "arms akimbo." Stand erectly, with the heels touching and the feet at an angle of about forty-five degrees. Make every muscle in the body as tense as it is possible to do, and then begin to turn slowly from side to side. This exercise,

if it is to give benefit, must be accompanied by the resistant work that has been explained already. For instance, when making a turn to the right, always resist by employing the muscles in such manner that the turn is rendered difficult. In turning to the left, always employ a counteracting, resistant pressure to the right. In exercises of this kind it should be understood that at all times there must be conscious but inferior muscular resistance. The resistance must be great enough to all but defeat the victory of the muscles that are employed in achieving victory.

This principle cannot be too thoroughly absorbed by the student. At the same time care must be taken not to carry the resistant idea so far that panting or palpitation is caused. The student, whether engaged in exercise by herself, or in association with a companion, can determine readily just how much resistance can be offered without causing fatigue. FATIGUE AND EXERCISE DO NOT GO HAND IN HAND! Any exercise that truly fatigues is injurious. Caution should be given not to try the exercise described in the foregoing and



No. 9. RESISTANT ANKLE WORK.

illustrated in photograph number eight to the degree that will cause fatigue. A woman who is absolutely strong can perform, without stopping, from twenty-five to forty of these turns from right to left; the woman who is not strong should content herself at the outset with two turns from right to left in a single practice bout. Then the strength will come that will enable her to increase the number of times that she does the work at the beginning.

The next exercise that should be added to the list is somewhat difficult of achievement at the outset, but skill comes with a little practice. As is shown in photograph number nine, each contestant stands on the right foot, holding the left foot backward, and clear of the floor. They clasp right hands at arm's length, or nearly so. Arms and legs should be as tense as is possible. While the victim stands on her right foot, using it as a pivot only, the assailant, hopping on her right foot alone, endeavours to swing her opponent around to the right. Each should use as much force in the arms as can be done without preventing the victory of the assailant.

This is an exercise that should not be taken often at the outset. Too much of it will exhaust the strength of a woman who is not accustomed to physical training. But the amount of this exercise can be increased gradually, just as the strength of the student increases, and just as the task becomes a pleasure instead. A very little practice is needed in order to convince the student that the exercise is one that shakes up the vital organs, strengthens the muscles over the hips, and makes the arms and legs stronger. There is the added advantage that agility and physical poise are improved.

Of course it is to be understood that the hopping on the right feet with the right hands clenched can be duplicated by hopping on the left feet while the left hands are grasped, in the same fashion that is shown in the photograph. In fact, it is well to have rather more practice for the left side of the body than for the right, as the tendency of nearly all physical training is to develop the right side of the body at the expense of the left.

From photograph number ten a very perfect

No. 10. THE RESISTANT WORK, DONE FROM SIDE TO SIDE, VICTIM RESISTING.

idea may be gained of the next exercise that is to be taken up—that is, to be taken up after the second month's work has been under way for a week or so. The caution is to be given in advance that too much of this work is likely to prove injurious to the heart. A normally healthy woman need not be in the least afraid of the exercise. The Japanese woman minds it no more than she would washing her hands. The woman student who fears that her heart is weak should take the work with caution, at first, noting whether she suffers discomfort in consequence. If she discovers discomfort around the heart she should try the work very easily at first, increasing it by very gradual degrees. This caution is given for the reason that in the United States heart troubles are very prevalent among women — at least, imagined diseases of the heart exist, which may mean very much the same thing.

The woman who feels that her heart action is weak may try the exercise very lightly at first, and with gradually increasing exertion. If she finds it too severe for her, she would better leave it alone. But if she will persevere,

without fear, taking the work a little more strenuously as the days go by, and never to the point at which she suffers discomfort in her heart, she will find that the heart action is greatly strengthened.

And now, with this preliminary warning, we will come to a description of the exercise that is illustrated by photograph number ten. It represents another form of the "struggle," a form of exercise which represents all that is best in *jiu-jitsu*. It is the resistant work pure and simple. Every muscle employed stands opposed to a corresponding one in the body of the opponent.

As is shown, the contestants stand facing each other with feet spread wide apart. The arms are raised horizontally sideways, and the opposing fingers of the students are interlaced. Each then leans forward enough to enable the pair to cross necks in the manner that the illustration depicts. The body is made as tense as is possible throughout, and then the assailant endeavours to press the victim's neck as far to the opposite side as is possible, the victim all the while resisting. The arms are employed

in moving down or up on either side as much as may be done. Both contestants should hold their arms as rigidly as they can, with tight, firm grip of the hands. The upper chest is the only part of the torso that should touch.

Now, when the position has been secured and the contestants have their necks crossed as much as may be in the form of a letter "x," the one who is to make the assault should struggle to push the victim's head over. When necks are crossed at the left the push should be to the right. When the necks are crossed at the right the push must be to the left. The upper chest may be employed to advantage, and the value of the use of the arms in twisting the opponent's head over should never be lost sight of. The main strain must come in the neck, but all of the muscles from the neck down to the abdomen will be brought into play. The arms, too, will be benefited, especially at the wrists, where most American and English women are weakest.

I have spoken of the practice that obtains among *jiu-jitsu* instructors of requiring the pupil to think for himself. In the analysis of

the foregoing exercise there is an excellent opportunity for careful study of the work that can be exacted from the muscles.

Take each part of the body, from the neck down, that is brought into play. Note the tension on the side of the neck that is crossed, and the amount of strain on the side of the neck that is not crossed. Try the work again, and note the corresponding effect on the muscles when the necks are crossed on the other side. It must be remembered that the necks may be crossed either at the right or the left side, and that the work at the left side should not be neglected in favour of the right.

In another lesson, study, through careful observation, the play that this exercise gives to the muscles of the upper chest and back. In still another bout come down to the small of the back, the abdomen, and the arms, especially the wrists. Discover how the muscles are played upon in these parts. Do it slowly and intelligently, and it is surprising how much knowledge of the use of muscles is acquired.

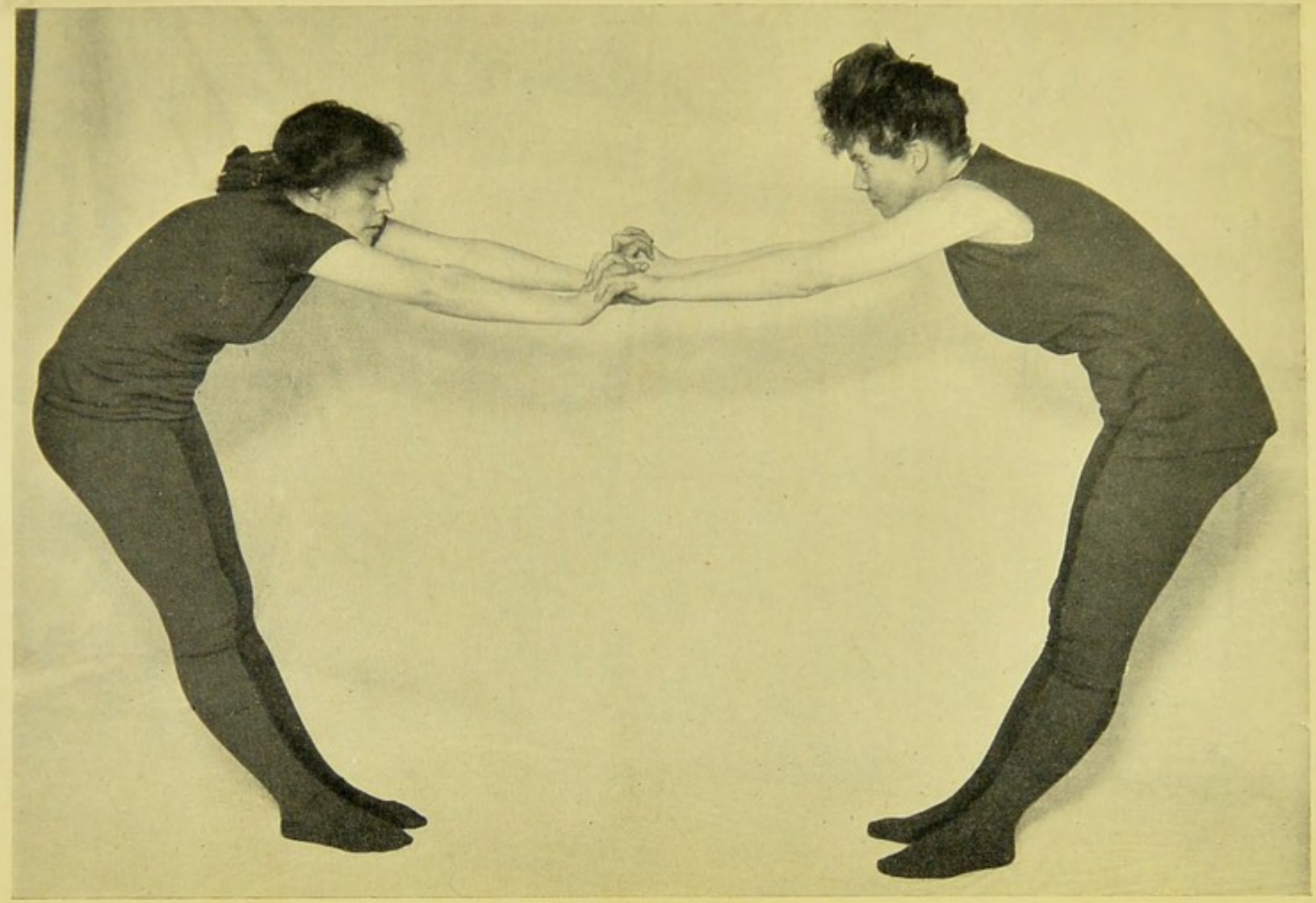
From this sort of work the real student will

learn much that she will never forget. She will be able to devise variations of every exercise that is described in this volume. She will awake by degrees to the fact that any muscle may be strengthened by resistance from another muscle. She will acquire an idea of the kind of work that brings results never to be achieved by such simple work as the use of Indian clubs and dumb-bells. Whenever a muscle is to be hardened the trick is accomplished by using some other muscle resistantly against it.

When a Japanese woman has reached this stage in physical training she is encouraged to practise and to discover all manner of tricks for training the muscles. She is made to stand apart, to place her thumbs across her thorax and her fingers over her ears. Then, she must bend her head to the right, resisting to the left, and then do exactly the reverse thing. Then she must place her thumbs once more over the thorax, with her fingers interlaced below the base of her brain. Now, she must bend her head forward and backward—and finally sideways — always resisting the

movement in the desired direction by a reverse use of the muscles in the other direction. Every possible movement along these lines is encouraged, because they can do no harm, and all the while the instructor stands at one side, looking on but making no comment. His teaching is that any resistant play of the muscles that does not cause undue fatigue is of value in strengthening that part of the body to which the muscles belong.

As soon as the reader has made herself realise the need of analysis it will be time to take up another exercise that may be carried out in many ways. This new work involves the "struggle," but one of a kind that has not been described as yet. The two opponents stand facing each other, each bending well forward, and with feet wide apart. Opposing hands are clasped, preferably with fingers interlaced, and then begins what might be termed a "tug of war." Each strives to pull the other forward, and the effort is kept up until the fatigue point is in sight. Of course a contestant who is very much stronger than her opponent should allow the latter to gain a



No. 11. THE RESISTANT DRAG.

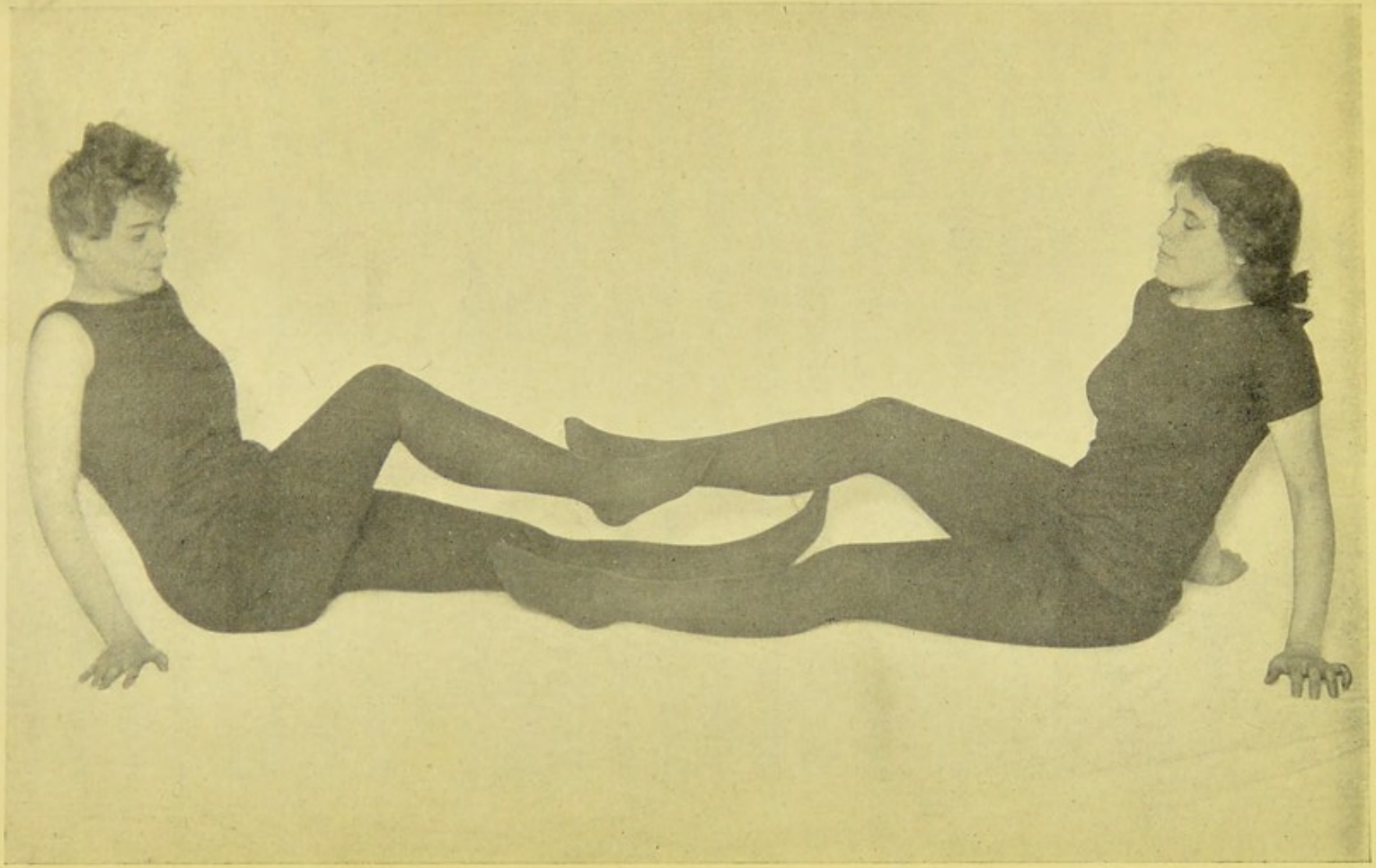
Each student throwing her whole weight against the other's, the work to be continued until one has conquered.

grudged advantage in the alternate bout. This is an all-round exercise that is employed in many of the Japanese schools. It is intended especially for the strengthening of the back, and it is at this point that the first strain of undue fatigue is to be felt. A minute of struggle employed in this work should be enough, when followed by deep breathing, and by just one more struggle of the same kind as soon as both students are breathing properly. Photograph number eleven depicts this form of the struggle with all the accuracy that is needed for a quick comprehension of the work. Once the attitude is taken all that is needed is for the contestants to begin to pull each other forward.

In photograph number twelve is shown a form of exercise that does much to develop the legs and the vital organs. The woman who finds herself becoming too fleshy around the waist-line will take away much of her needless flesh if she will practise this exercise with the persistency that is needed for development of the body at a period in life when birthdays come with annoying frequency. The same

exercise, taken often by girls and young women, will keep flesh from accumulating around the waist-line. Japanese women do not wear corsets, yet they possess as slender waists as are consistent with their prettily rounded contours.

It is necessary for the two contestants to sit on the floor. The hands are placed out at the sides, a little behind the waist, and the arms give leverage. Both assailant and victim secure support from the hands resting on the floor. The assailant pushes her victim's leg around to the right by putting the flat of her own right foot against the inside ankle bone of the victim's right foot, the victim resisting all the while. Then the left foot of each contestant is employed in the same way. After that victim and assailant change places. The work should not be kept up very long at first, but the amount of it may be increased by very gradual degrees. No harm can result from the performance of this exercise, but it will be found that the task requires a very considerable amount of balance and strength in the arms and legs at first. Four struggles of this



No. 12. RESISTANT ANKLE WORK WHILE SEATED ON FLOOR AND LEANING BACK ON HANDS.

kind, one with each foot for the assailant, and then one with each foot by the victim who has changed to assailant, will be found to be enough in any practice bout at first. The amount of this work can be increased gradually, especially in the case of a student who has found that she is growing too rapidly at the waist-line. It is the habit of many American and English women to neglect growing corpulency at the waist-line until they reach the time at which heroic measures are necessary.

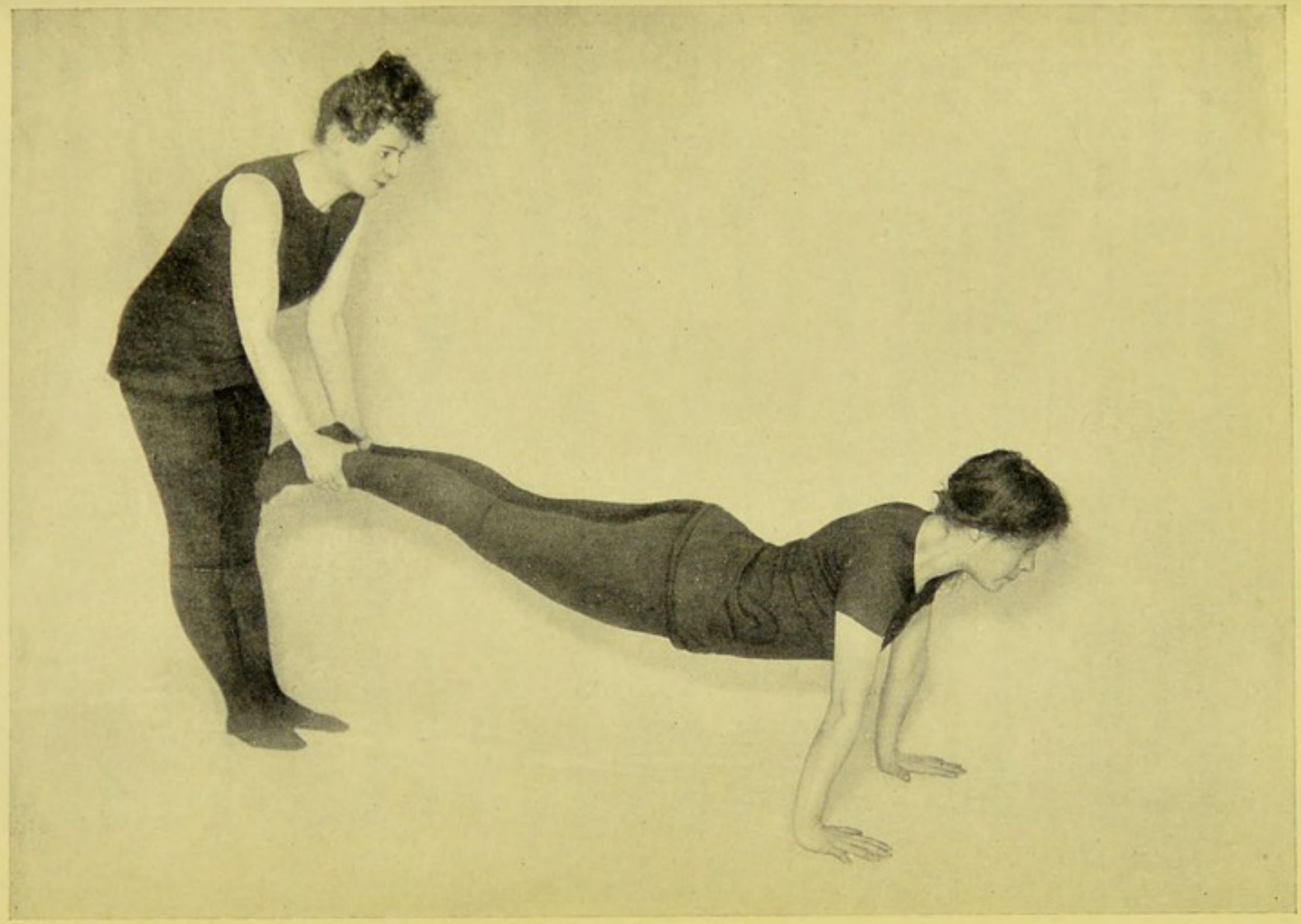
The student is advised, as she would be in a *jiu-jitsu* school in Japan, to take up the exercises described in the first chapter as the foundation. Those given in this chapter will be found of advantage for occasional added use. Not all of the exercises can be taken up in a single bout of practice. The student will be able to decide much for herself as to which exercises are needed in the greatest frequency, but all of those that have been described should be employed at least once in a while—and there is no use in taking up *jiu-jitsu* physical training unless it is to be persevered in every day in the week.

CHAPTER III

ADVANCED WORK, TO BE TAKEN UP AFTER A FEW WEEKS OF PRELIMINARY TRAINING

IT is not expected or desired that the woman student will take up any of the exercises described in this chapter until she has spent some weeks in patient, regular study of the feats that have been described already. The exercises that are to be described now are those that are fitted to pupils who are fairly advanced—those who have learned how to employ their muscles and who have gained the strength that is needed for the new work.

There will be no harm in practising the exercises given in this chapter when the student finds herself strong enough to go through them without fatigue. But the causing of fatigue must be the guide. Some women are naturally strong enough to go quickly through all the feats described in this volume. Others



No. 13. "THE TRAVEL."

will have to take them up in the sequence given, care being taken never to reach the point of pronounced fatigue. In this each student will have to be her own judge. All of the exercises are presented in a sequence that will enable the student to go ahead as rapidly as her individual strength permits.

For the woman who is normally strong, and who has put in a few weeks of daily work in the preliminary work given in the first two chapters, there is nothing in the work of this chapter that can do her the least injury unless it is carried to extremes. The motto of the patient little Japanese is MODERATION IN EVERYTHING! Through observing this preliminary caution the American woman will find herself, after following systematic daily work for a little while, greatly improved in strength and in suppleness.

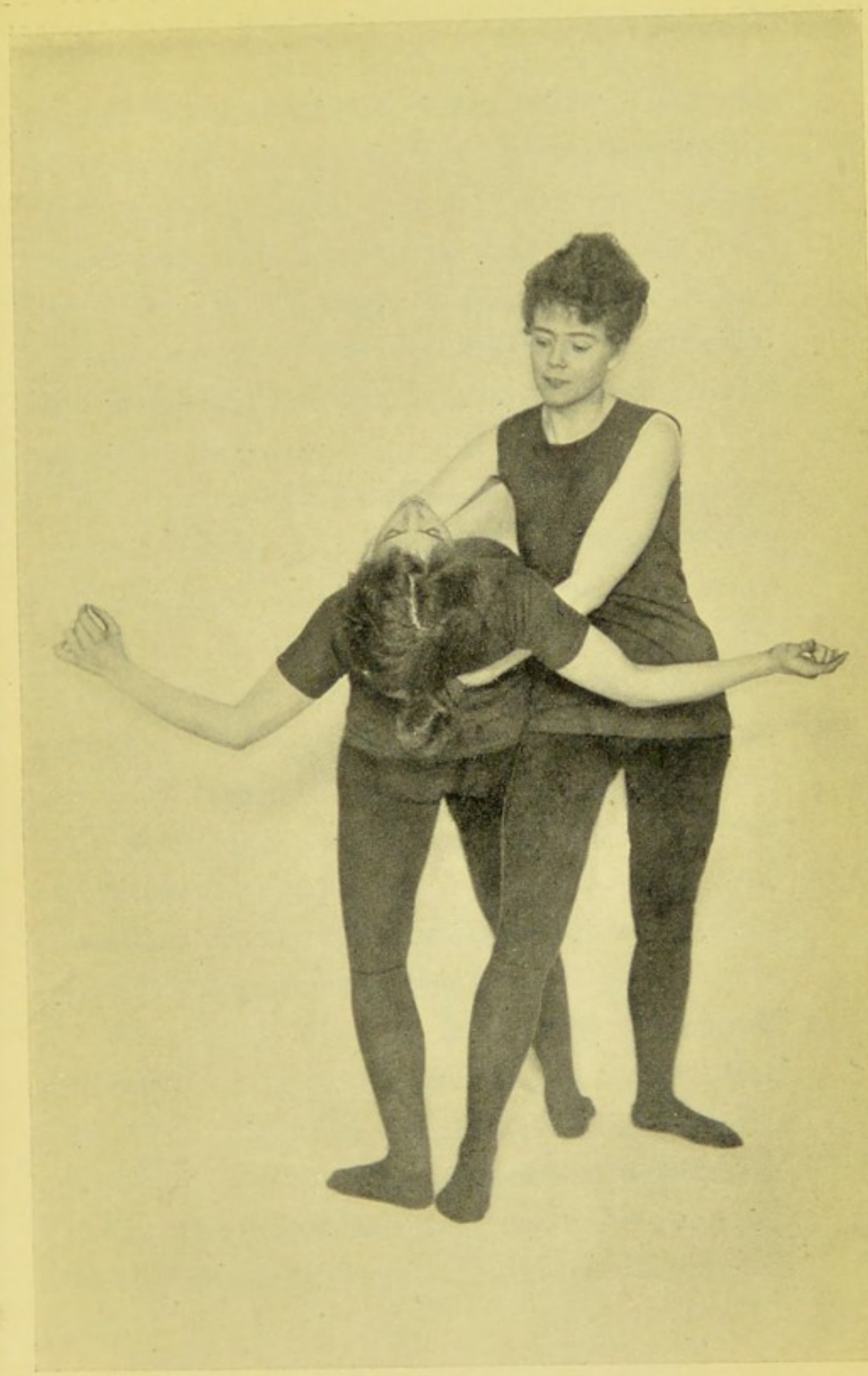
In photograph number thirteen is shown an exercise which, at first sight, may seem to border on the comical. Yet it is one that should be taken very frequently, without too much of it in any one practice bout. One of the students, who may be designated by the

convenient name of "victim," lies on the floor, face downward. Her "assailant" takes up position behind the former's feet. The assailant lifts the victim's ankles, holding them clear of the floor. At the same time the victim raises herself clear of the floor by leaning on her hands, as is shown in the illustration.

As soon as the position has been taken correctly, the command, "travel," is given. The victim, walking on her hands, moves forward. The assailant does not exert much strength—in fact, does nothing except to support her fellow-student's feet. As soon as a few steps forward have been taken the victim walks backward upon her hands. The assailant does not push in going forward, nor pull in going backward.

By degrees, the victim should learn to arch her back upward as far as possible, yet never to the point of straining. At first it will be found convenient to let the abdomen remain close to the floor, the arch upward increasing only very slowly as the length of time given to this exercise goes on.

A valuable variation in this work will be



No. 14. THE ASSAILANT LETTING THE VICTIM OVER BACKWARD TO THE FLOOR.

found if the assailant, while holding the victim's ankles, twists the latter's legs and trunk first to one side and then to the other. More work along this line will be described in a later chapter. At all times, in twisting, the victim should resist the twist as much as is possible by employing her own muscles to twist in the opposite direction.

And right here is where the Japanese principle of allowing the student to instruct himself as much as is possible comes in very forcibly. In this feat of the "travel" the careful student will discover just what muscles are used. There is much strain upon the arms and the torso. When the twist of the legs and the body is employed there is added strain upon the torso, while the legs receive additional exercise. In the twisting the assailant benefits, slowly, by exercise of the wrists. The benefit to the victim, however, is greater. It should be borne in mind that in this, as in all other exercises, victim and assailant should change places as soon as a feat has been accomplished.

Photograph number fourteen shows a somewhat difficult exercise. It is one that many

women cannot accomplish at all, unless the muscles employed have been well hardened by the work that goes before this. It is work, too, that should be employed with caution in the case of stout women or those inclined to apoplexy or weakness of the heart. During the first two or three weeks after this exercise is taken up it should be employed only once in each practice bout.

The assailant should clasp her hands at the small of the victim's back, as is shown in the illustration. The next move is for the assailant to place the back of her right thigh against the back of her victim's right thigh. Now the victim bends backward, placing her whole weight upon the assailant's arms, with a little added support, at first, from the assailant's thigh. Now, as the bending backward goes on the assailant steps slowly forward, gradually lowering the victim until the latter's head touches the floor. When the victim is weak it will be found better not to lower her head all the way to the floor until the exercise has been practiced for two or three weeks, but the head may be let lower and lower on succeeding days.

No. 15. RAISING THE VICTIM FROM A PROSTRATE TO AN ERECT POSITION.

Photograph number fifteen shows the work of raising the victim to an erect position. Do not bring up the victim with a jerk, but raise her as gradually as she was lowered, the assailant moving slowly backward in short steps as the lifting is accomplished. While this is being done the victim throws her full weight against the assailant, with arms hanging down and the abdominal muscles as tense as they can be made. The work is severe upon both students, but its benefits will be discovered by noting the muscles that are strained in this exercise.

Caution must be given that the assailant, who does the lowering and raising, be strong enough to hold her fellow-student. Great pains must be taken, too, that, at the start of the lowering, the thighs be placed against each other in just the position indicated. The assailant must not hurry with the lowering, as a sudden slip forward would result in landing the back of the victim's head against the floor with a jar that would not make for good physical training. It is an exercise to be employed always with caution, but its benefits, for a normally strong woman, are great.

This work strengthens the whole body, from the neck to the toes. There is not a muscle that is not employed, but those of the abdomen, of the waist-line, and the small of the back will receive the greatest benefit when the work is rightly done. If at all in doubt, the student should read the text over and over, and study the photograph persistently. While at the outset one of these feats should be enough for each practice bout, students who are strong enough may try the feat twice in each bout during the second week, three times in each bout during the third week, and in this ratio until both students are able to perform the feat five or six times in a single bout. But it is not intended that, at any time, this work should be tried more than in three bouts in a week.

An exercise that will furnish welcome relief, and one which will do much to strengthen one for the foregoing drill, is the form of struggle shown in photograph number sixteen. Here the contestants face each other. Each throws her left arm around the waist of the other. The right hand of each is employed in such a

No. 16. A THROAT-HOLD TO BE EMPLOYED RESISTANTLY.

way as to get a good grip under the other's chin, forcing the contestant's head back as far as is possible. When this position has been taken the two students begin to struggle, each trying to force the opponent backward. This struggle may be carried on in a very lively fashion, where the students are about evenly matched, and with mutual advantage. They may travel all round the room in the contest. No harm can be done in this work, so long as a fall is not attempted. Advanced students who are sure of the condition of their muscles may attempt even a fall where the floor is padded, as with gymnasium mats. But it is safer, on the whole, not to attempt the fall, even in the advanced stages of the work, as a quick wrench at the instant of the fall might produce lacerated ligaments of one or both knees.

This exercise, like all of the others, may be varied in many ways that the student may solve for herself. For instance, throw the left arm around the antagonist's waist as before, placing the right hand at the left side of the victim's neck. Then force her head over as

far as it will go to the right, the victim all the while resisting this pressure. Then the victim should bring her head back again to the left, the assailant all the while resisting this return movement. In this case it is not necessary that the victim have her arm around the assailant's waist, unless support is gained thereby.

Still another beneficial form of this work is found when the two students take the same clasp, with left arms around each other's waists, the assailant this time placing the right forearm against the right side of the victim's neck. The assailant presses the victim's head over as far as possible to the left, until even the lower abdominal muscles share in the strain. When the victim has been forced thus over to the left as far as is possible, she struggles to return to erect position, the assailant now resisting in turn.

If proper pains be taken to make sure that the muscles at the waist-line are tensed and strained by this exercise, it is all but impossible that any other muscle involved can fail to receive its proper share of benefit. The wrists and neck, too, come in for their share of play,

and it is at the wrist and in the neck that the American woman is most likely to be weak. These two parts should receive much attention.

Now has been presented work enough for any American student to attempt during the first three months of her training in *jiu-jitsu*. Many students will go ahead with it much more quickly, and a comparative few will be justified in so doing. Everything depends upon the strength of the student. But too much stress cannot be laid upon the point that heavy work—that is, work requiring the utmost exertion of the strength—does not produce the quickest results in the building up of the body. Japanese women do not attempt to strain until, by easy work, gradually increased in strenuousness, they have acquired the muscular development that fits them for strain without injury.

While daily work, faithfully adhered to, is absolutely necessary to proper physical development, it is not intended that all of the exercises described in the foregoing should be taken in each day's bout or bouts of practice. The better rule will be, at the beginning of

each bout, to select certain exercises to be employed at the time. All of the lighter ones may be used, and should be, but two or three of the harder ones will suffice, and these should be used in turn, so that, during the week's work, one is used as frequently as the other.

At the outset most students will be tempted to turn the performance of the feats into tests of comparative strength. This is a tendency that Japanese instructors strongly discourage. Where the contest is a friendly one it makes no difference whether the assailant or the victim is really the stronger. It is sufficient—and better—that the victim resist just enough to *all but* prevent the assailant's victory. If the assailant be the stronger, she should be careful, at all times, to employ just enough strength to overcome the victim's resistance. This matter cannot be emphasised too strongly, for the resistance of one muscle to another is the whole essence of the science of physical training as it has been thought out by the strong little men and women of Japan.

In the exercise, for instance, that has been

described in this chapter, where one student lets the other over backward, and then raises her, most depends upon the victim's hanging her full weight upon the other contestant, but much depends upon both tensing their muscles at the abdomen and waist. In the neck work the utmost resistance that does not exhaust must be employed.

It is natural for the student to wish to try tests of strength. I shall describe some that will be convincing, and they may be taken at any time, provided only that they are not carried to excess. Lie prostrate on the floor on the right side of the body, with the right arm extended in a line with the body. Now, resting on the palm and ankle, and bringing the hand gradually in closer to the body, attempt to rise in such manner that head, torso, and legs are free of the floor, all of the weight resting on the right hand and the right ankle. See how long you can remain in this position. It is well to have some friend keep the time with a watch. Few American women can raise themselves at all in this fashion. I have known Japanese women to do it, and to remain

resting on palm and ankle for ninety seconds. I am quite prepared to believe that there are Japanese women who could carry the strain of such a position for a period considerably exceeding two minutes.

At another time, try the same exercise on the left side. There is a tendency among Americans to develop the strength of the right side at the expense of the left, and for this reason the raising of the body on the left will be found much more difficult. A well-trained Japanese woman can raise herself as easily on the left side as on the right, and this is because, in the *jiu-jitsu* schools, one side of the body is trained as thoroughly as is the other.

There is another test of strength that will be found rather severe, but it shows the student how she is progressing in muscular development. Lie upon the floor, flat on the back, with feet somewhat spread, and with hands flat on the floor a little back of the shoulders. Next, try to rise, resting the weight of the body on the palms and on the heels. Note how high it is possible to raise the body, arching the abdomen up as far as is possible. Note

also the length of time that it is possible to maintain this position. The longer the student can hold this position the better, she may be assured, is her physical development.

It is possible, by the means of these exercises, for a woman to understand just how much she is progressing by the use of Japanese training methods. But this work, like all of the other Japanese work, must not be carried to extremes. The essential point is to ascertain just how long any one of these poses can be maintained without exhaustion.

An interesting variation of the last exercise test, and one that carries with it much strengthening of muscle,—if the work be not indulged in too severely,—is found in raising on the hands and heels, and twisting the body from side to side—always with resistant pressure in the other direction.

Another test of strength—but an exercise that should not be employed too often—is found in throwing the arms backward over the shoulders and clutching at something like a stationary pole. Then, standing as far as is possible from the pole, the student should bend

over backward, noting the amount of time that this difficult pose can be held.

Another test of strength is found when the student bends forward to the right, with the right palm resting on the floor and the right foot also, while the left hand and foot are kept clear of the floor, and as far from it as possible. The left foot should be as far back as is possible, with the left hand as far forward as it may be. This exercise can be varied by resting the left hand and foot on the floor and extending the right foot backward and the right hand forward. The time in which this pose can be kept should be noted from week to week, and the increase in the number of seconds will give the student a very fair idea of the gain in muscular strength.

Do not attempt to hurry results.

Do not forget, after the performance of each feat, to breathe deeply at the open window before passing on to other work.

CHAPTER IV

ESPECIAL EXERCISES FOR THE WAIST-LINE AND FOR THE ORGANS

No one who has seen the average, normal Japanese woman can fail to be impressed by the beauty of her waist-line, nor, in fact, by the grace that is shown in every line of her torso. An anatomical examination will prove that most Japanese women satisfy the artist's ideal, as well as the surgeon's, of what a woman should be in this important part of the body.

Of course there are torsos that do not meet the best requirements, but these are to be found only among the women who have not made a conscientious study of *jiu-jitsu*. The writer of this volume is neither an artist nor a surgeon, but he has made anatomical studies of the Japanese women in the company of both artists and surgeons, and his opinion is indorsed by theirs that Japanese women show

not only the most strength, but the utmost grace of contour. And this is true especially of the torsos of the Japanese women.

Nearly all of the work that has been described in the three foregoing chapters is directed at splendid and graceful development of the torso, with accompanying benefit to the other portions of the body. The exercises that are to be described now are those that *jiu-jitsu* instructors insist upon as being of especial value at the waist-line and for the whole torso.

None of these exercises should be taken in every succeeding practice bout, but should be employed from time to time as the student decides for herself. At first it will be best, undoubtedly, to employ one of the three, in alternation, in the practice bouts of succeeding days. All three of these exercises should be taken in moderation, at first, and by very gradual degrees the strain of the work should be increased until both students reach the acme of strain. As the muscles develop in strength the possibility of danger from strain is obviated. But each student should watch care-

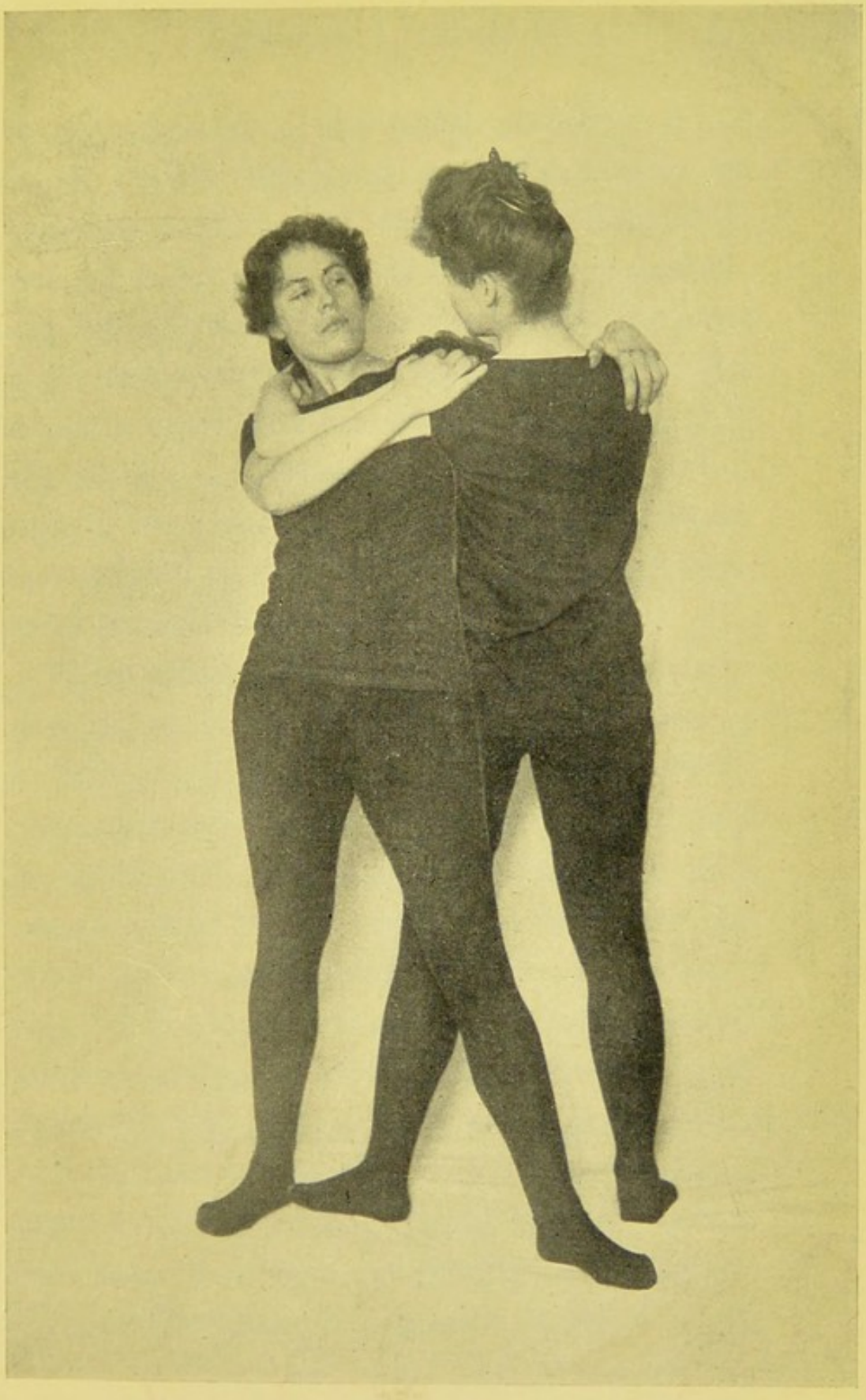
fully that the normally increasing strength is not abused. It is not sufficient to be strong enough to be able to perform a given feat. The student must be able to perform the especial feat without the least feeling of strain; and, when there is a feeling of strain it is a sure indication that the work is being carried on with more zeal than discretion.

I have had more or less experience with American women who have undertaken the whole system with a view to mastering it within a week or two. They have gone into the work too earnestly. *Jiu-jitsu* exercises sent the blood tingling through their bodies; they felt as exhilarated as if they had taken stimulants, and they wanted to keep on at the work indefinitely. At the first sign of exhaustion it has been necessary for me to give a peremptory command: "Stop!" And, sometimes, this is hard to do, for the woman who is full of bounding health feels that she can endure easily another half-hour of work. The exercises are so strengthening and stimulating that it is hard to know when to stop. The intelligent student will know when to cease work

by the feeling of the first indication of fatigue. If she lies upon her back, with feet spread and arms extended, taking deep breaths all the while, she may be able to return safely to work in the same practice bout. After a good deal of persistent practice at *jiu-jitsu* these symptoms of fatigue will be felt but seldom.

In photograph number seventeen is shown a form of exercise that may be used to the utmost advantage, always provided that it is not overdone. Let the two students stand at the left of each other. The left side of one should be opposed directly to the left side of the other, each stepping far enough forward to bring this about. Now, let each one grasp the other by the shoulders, as is shown in the illustration, with the left waist-line of one pressing firmly against the left waist-line of the other. Hands and arms should be made firmly tense, and so should the muscles of the torso, principally at the waist-line, and in a less degree above.

When this position has been well secured the student who is to act as the assailant should walk around to the right, while the



No. 17. EMPLOYED AT LEFT SIDE OF EACH CONTESTANT.

victim, resisting all the while, pivots upon her heels. While this position is not always an easy one to keep until the muscles have been trained thoroughly, it will be well if the assailant forces the victim around three or four times before the exercise is discontinued. All depends upon the amount of resistance that the victim employs—always bearing in mind that, if the assailant be the weaker, the resistance should be just enough to make the victor work for the victory.

When this has been accomplished, assailant and victim should change relations as soon as a little deep breathing has been practised. Not more than two of these exercises should be attempted in a single bout until the time comes when both contestants find that the work can be undertaken without undue strain. But it should be remembered that advanced students ought to take up this exercise with determined purpose at least every third day.

As a variation of the exercise the assailant, when the same initial position has been taken, may force the victim over slowly to the latter's right. The victim is supposed to resist all the

while. When the victim has been forced as far over to the right as she can go, she forces the late assailant over to the side in the other direction, encountering as much resistance as can be offered her without preventing victory. This movement should be taken very slowly; the greatest benefit comes from the tensing and straining of the muscles at the waist-line. The arms and the shoulders, as well, must be used with considerable strength. With the invariable proviso that there is no panting or undue palpitation of the heart the student will know that she is not injuring herself.

After such an exercise it will not be unnatural for the average American woman whose muscles have not been hardened to feel sore around the waist-line the next day. Such soreness is a sure indication that she has taken the exercise too severely. In that case, during the next few trials of the feat, it will be well for the assailant to employ less pressure and for the victim to offer less resistance. But the student who has followed faithfully the course outlined in the preceding chapters, and who has not made too much haste to reach this

No. 18. RESISTANT BACK WORK WITH SLIGHT BENDING BY BOTH CONTESTANTS.

exercise, will find her muscles in such hardened condition that this work will have no power to make her feel lame in the waist region.

Even the student who has been at the work but a few days should not feel lame afterwards, if the injunction as to moderateness has been followed. If, however, too much zeal has been shown, and the back is lame, the exercise depicted in photograph number eighteen may be employed mildly. Here the two opponents face each other, clasping hands over their heads. The clasp must be a firm one, with all of the muscles of the arms tense. The assailant forces the arms of her victim over backward, making the latter bend her body slightly. Then the victim turns assailant and forces her companion over backward in turn. The victim always resists the pressure over backward, while the assailant employs just enough more strength to gain a victory. In case of lameness at the back, or in the sides, it will be understood that neither assailant nor victim is to use too much strength until the lameness has disappeared.

In this, as in all other exercises, there is a

useful variation. When the two students stand with each other's hands clasped overhead, as directed in the last exercise, let the assailant twist slowly over to the right, the victim all the while resisting to the left. The victim should be twisted well over; and, when the last point of bending has been attained, the victim should turn assailant and bend over to the other side, the hands being carried well over the heads of the contestants in so doing.

There is still another form in which this work is employed when the students stand with each other's hands clasped overhead. That is, for each to back away a little from the other. The assailant now bends forward as much as need be, and forces the victim to bend forward, the latter resisting. The latter must not bend her knees in bending forward, but the nearer her hands are brought to her feet the more perfectly is the work performed. A counter movement upward is not valuable in this exercise.

There are many other exercises that ingenious students can plan for themselves when starting at the position of hands clasped over-

No. 19. RESISTANT NECK WORK.

head. There are many swayings and bendings that may be practised with benefit from this starting pose. Any exercise of this nature, that can be begun at the starting pose and carried on with resistance on the part of the victim, and with endurable strain at the waist-line for both would meet with the approval of a *jiu-jitsu* instructor.

Another form of exercise that is simpler of execution, yet which affords perhaps more muscular strain when carried out with zeal, is that shown in photograph number nineteen. Here each contestant stands well to the left of the other. The left hand of each is pressed against the left side of the other's face. The feet are kept as rigid as is possible. In this position the assailant presses the victim's head over, the latter all the while resisting by pressure in the opposite direction. As soon as the victim's head has been pushed as far over to the right as may be done, the victim returns, forcing her late assailant's head over as far to the right as is possible. When this exercise has been carried to its fullest development it is possible for the two students to make the exer-

cise one of alternative swaying, the movement becoming more brisk, and resulting in great benefit to the wrists, arms, necks, and torsos.

When the work has been carried out thoroughly on the left side it should be taken up at the right side. Another variation is found when the students employ their left hands in getting a good grip at each other's chins, each forcing the other's body over backward in turn. Then the right hands may be used. In this form of backward bending the assailant should stand well at the side of the victim whom she is forcing.

Doubtless it will seem difficult to plan variations of the work just described. It is in this matter that the ingenuity of the student comes in. Here is a sample variation that would not occur readily to the new student of *jiu-jitsu*: Let the victim bend forward, without bending her knees, so that her hands touch her feet, or nearly so. Now, let the assailant place her hand—either one—on the back of the victim's head. The victim, employing all of her muscles that she can, raises her head slowly against the assailant's pressure. Of course the latter

does not employ too much strength, yet enough to make the victim's effort as difficult as the latter's strength will permit.

Then there is still another form that may be suggested. Let the victim bend her head forward until it is on a level with her abdomen. She may rest her hands in any position that is comfortable, although preferably upon her hips. The assailant presses her left hand against the left side of the victim's face, and tries to press the head around. The victim resists. Then the attack is made with the right hand against the right side of the victim's face, with the same resistant work. After this victim and assailant change places. At first it may prove difficult for the victim to maintain her equilibrium, but the ability to do so increases with each repetition of the drill.

A movement that brings much relief when there is danger of straining the muscles by too vigorous exercises for the back is found when two students stand erect and back to back. Heads and trunks should touch. Then the assailant, using the back of her head, with some assistance from her back, presses her

victim's head forward as far as possible. When this is accomplished, the victim turns assailant and presses her companion's head back in the opposite direction. In this exercise hands are held on the hips, and each resists the other's attempt to press the head forward. Care must be taken not to carry this work to the point of fatigue. It should be taken, rather, as a relief from sore muscles; and it is especially valuable when used mildly on the day following too muscular strain.

By way of change, the student who has made the mistake of carrying exercise to the point of causing lameness should attach a rope to a hook or ring in the wall. At the hand-end of the rope should be a loop. Thrust the hand through the loop, take firm hold, and bend slowly backward, resisting the bend as much as may be done. Then rise to erect position, resisting the upward movement by throwing the weight of the body against it.

At no time should the importance of possessing strong wrists be overlooked. I have met frequently women who possessed arms that showed surprising development of muscle—ex-

cept at the wrists. These could be turned backward and forward with the utmost ease on the part of the experimenter. The various forms of resistant work for the wrist already described should constitute the first part of the exercise in each practice bout. Where there are two students there should be wrist-to-wrist work first of all. And, in her own room, the student should follow the directions given for individual practice along these lines.

Another exercise whose value cannot be emphasized too much at this stage of the work is the "travel." Most women suffer from too weak ankles. While the "travel" is intended, in the first place, for the development of nearly every part of the body except the ankles, this latter may be had when the student who holds the other's feet twists the ankle from side to side, the victim all the while resisting. And this should be done every time that the "travel" is attempted. In a woman, especially, weak ankles afford a very sure indication of general weakness.

By way of increasing the strength of the ankles the Japanese student of *jïu-jïtsu* is

taught to seat herself, and, raising one foot, to take the ankle-bones between the two hands with a firm grip, twisting the foot from one side to the other, always resisting the movement in one direction by a pressure of the foot in the other. This very simple exercise is equally valuable in increasing the strength of the wrists. When one ankle has been exercised thus the other is taken up in turn, and this is work that can be carried on at any time without the aid of a fellow-student. Yet it is of decided advantage when companions twist each other's ankles, always with resistance on the part of the victim.

It must be insisted once more that no exercise is as important to health and strength as is the practice of deep breathing. No exercise should be repeated or be followed by another until several breaths have been taken at an open window or in the open air. And every practice bout should be followed by a bath, which will remove all the impurities of the body that the work has brought to the skin. To exercise seriously and vigorously, and then not to follow with a bath would be looked

upon as a venial sin by any Japanese physical instructor.

Nor would the same instructor permit the eating of food directly after the taking of *jiu-jitsu* work. Some little time—from an hour to an hour and a half—should elapse between bath and food. Even when the proper interval has been observed, it is advised with great emphasis, that the meal be a light one.

But the importance of drinking pure water cannot be overestimated. It may be consumed during the exercise period, if this seem necessary, but a drink of water should always begin the bout, and a considerably larger quantity should be used very soon after the bout has finished.

CHAPTER V

FRESH AIR THE VITALISER IN WOMANHOOD —SOME OTHER SUGGESTIONS

THE Japanese woman who has reached the stage of development that has been provided for in the description of *jiu-jitsu* that has been given already is taught to think for herself to a great extent. It is at this point that the student is *made* to think for herself.

First of all, the Japanese woman has been taught that life is impossible without a sufficient supply of fresh air. The purer the air, and the more of it, the happier and healthier will life be. In Japan there is found but seldom such a thing as window-glass. In the native houses the panes are of oiled paper. These are not sufficient to shut out the air. During the coldest nights of winter these oiled-paper panes will not do this. But the Japanese sleep rarely with these paper windows closed.

Fresh air—and a great abundance of it—is the Japanese rule. The woman who lies down for her night's rest has the paper-paned window thrown open a trifle. The air sweeps into the room and passes over her as she lies upon the floor. If she is cold, she adds more bed-clothing—but she does not close the window.

In the morning one of the first tasks is to go out-of-doors. There the Japanese woman takes in great breaths of air. This internal cleansing with air is treated as being of more importance than the morning bath that follows soon after. The kitchen and the other rooms of the house show closed windows only on the coldest days of winter. There is no air-starvation. And the Japanese woman is a deep breather, as is shown in the strong, firm muscles that stand out at the abdomen.

Consumption is a rare disease in Japan. Even in winter coughs are of rare occurrence, and this despite the fact that the real Japanese do not heat their rooms with anything more than an *hibachi*—a tiny charcoal stove that does not send the temperature of the room up to any appreciable degree, but serves mainly for

heating tea, for warming the hands, or for supplying the fire for a cigarette or pipe for the men of the household. When Japanese women wish to feel warmer they add clothing, just as they would do when going out into the street.

It should be kept in mind constantly by all students of this art that the Japanese look upon full, deep breathing as being the most vital function in life. Food is not as important, although it is necessary. The best of exercises are of little value when the breathing that accompanies them is not done properly.

Whether in winter or in summer, go to an open window—or, better still, out-of-doors. Place the hands on the hips, and try to breathe in as deeply as possible. Try to acquire the trick of sending the fresh air down so far that the lowest portion of the abdomen is distended by the work. In this work the shoulders should not be raised, but, in time, it should be possible to breathe so as to swell out the sides like bellows. And then the trick of breathing properly has been acquired; it will never leave the student. Add to this, at all times, a plentiful supply of fresh air, with the windows of a

room open at all times during the twenty-four hours, and the greatest principle of healthy life has been gained.

In Anglo-Saxon countries the corset has come into such vogue that it is almost madness to attack it. But the corset, no matter how loosely it is worn, restricts breathing, and for that reason it strikes the first deadly blow at the life of woman. Deep and full breathing is impossible with the corset. In Japan corsets are worn only by a very few "progressive" women who ape Western customs. The Japanese woman who has never seen a corset will be able, generally, to show a torso that will delight the artist or the sculptor. It is not necessary to say more about the corset, except that the writer would not undertake to train a woman who did not agree at the outset to avoid corsets in the future.

In any of the exercises that have been described in preceding chapters, or those that are to be outlined in following ones, the practice of the deepest breathing must be observed. Every one who has watched a day-labourer swinging the pick has noted the "ugh" with

which he lets his implement strike the earth. This is due to his instinctive knowledge of the necessity for breath. Japanese athletes, when exercising, give vent to the same grunts, which might be called gasps. It is by this method that fresh air is carried deeply into the body. It is through this kind of exercise that the vital forces of the body are kept at their best pitch through the employment of deep breathing.

No matter what portion of the work a Japanese woman is taking up, she is taught, between each exercise, to go to the window and to inhale a few deep breaths. It is folly to take up a new exercise until the organs have been refreshed by the introduction of several copious breaths of air.

The woman who expects to become a mother will find that deep, full breathing of pure air will have an inestimable effect upon her child. The child will start in life with lungs vastly bettered; the heart action will be more regular, and—which is of considerable importance—the mother herself will discover that her own lungs and heart are vastly benefited.

A very simple exercise that can be taken with great advantage at any time of the day will be found when the student stands erect, with her hands upon her hips. She should swing slowly from side to side. It is necessary to resist the movement to one side by a pressure in the opposite direction. Thus, while she is swinging to the right she should resist this movement by a counter-pressure to the left. And all the while, she should take in great gulps of fresh air.

A useful variation of this work may be found by standing in the same attitude, with the hands on the hips. Bend forward, resisting backward. Then bend backward, resisting by a forward pressure. In like manner sway from side to side, always resisting along the lines described. And *never forget* to breathe deeply all the while that this work is being done!

Many an American woman is troubled with a weak heart. This is so rare an affliction in Japan that none of the systems of *jiu-jitsu* offer any help for the trouble. Yet, from a general study of the principles of *jiu-jitsu*, it is

not difficult to suggest an excellent exercise for those who are afflicted with heart trouble in any of its forms. Stand erect with the arms held out horizontally at the sides. Closing the fists and tensing the arms as much as possible, swing from side to side, always resisting a turn to the right by pressure to the left, and reversing this when the swing is made to the left. With the arms held in the same position, bend forward, resisting by a backward pressure, and then reverse by bending backward and exerting a forward pressure. When this work is done very slowly and easily the muscles of the heart are strengthened, but at first the student should go at it very easily. The strain of the work may be increased gradually as the student finds the muscles of the heart becoming stronger. The slightest sign of distress in the heart must be taken always as the danger-signal, and then the work is to be made lighter, or abandoned for a day or two.

At any time when any fatigue has been incurred that rest and deep breathing will remedy the Japanese method calls for the student to

lie on the floor on the flat of the back. The arms are placed out sideways, while the feet are spread as much as is possible. Then the student breathes deeply until relief comes.

In the next chapter it is the writer's purpose to describe feats that make for the strengthening of the back. As nearly all of this work is dependent upon the strength of the hands and wrists, it will be necessary, first of all, to strengthen these important parts of the body.

In the first exercise the two students stand facing each other, with right arms reaching out toward each other. The victim's hand is held so that the palm is downward. Now, the assailant takes hold of the victim's thumb with her whole hand, clasping the thumb tightly, and pushing it up and over to the right side. All the while the victim resists as much as is possible, until her body has been bent over to the right side.

When this has been accomplished, it is time for victim and assailant to change places, going through the same work. Then the left arm of each is extended, and the victim's thumb, from the same starting position, is forced up

and over to the left side. In the same manner the forefingers of right and left hands are treated, and, after that, the second, third, and fourth fingers. The wrists share as much in the benefit of this work as do the thumbs or fingers.

But care must be exercised, at first, that not too much vim is put into the work. The assailant has it all her own way. It is possible, in the beginning, for the assailant to press over her victim's thumb or finger to an extent that will cause considerable pain. When the work has been kept up for weeks there will be no pain. At first, however, it is possible for the assailant and victim to have very sore—and, sometimes, swollen — thumbs and fingers. This exercise is especially severe upon some of the muscles in the front of the wrist.

When, with care, this form of exercise has been mastered, and there is no longer danger of soreness in the muscles employed, another form of the work can be taken up with advantage. In this form the victim stands with arm outstretched before her, her palm open and thumb up. The assailant seizes the right

thumb with the right hand, and presses the victim's thumb up over her head and as far back as may be. Then left hand is opposed similarly to left thumb, and the work is carried out with all of the fingers, assailant's and victim's right hands or left hands being always opposed to each other.

By the time that this form of exercise can be employed without danger of causing undue soreness it is well for the victim to stand with her right arm extended horizontally sideways, thumb up. The assailant seizes this thumb and slowly but firmly forces her opponent around to the right, the work ceasing when the victim, pivoting upon her heels, has been made to turn once around. Then assailant and victim change places, and the work is repeated. In like manner all of the fingers of each hand are employed by each of the students.

This work will give the greatest strength and suppleness to the thumbs and fingers of a student—but the benefit to the wrist is even greater. Great care should be taken, however, to make sure that the right hand and wrist are not trained at the expense of the left. And

resistance by the victim must be employed at all times; unless this is done there can be no benefit.

Another form of wrist work is found when the contestants kneel on the floor, facing each other. Each seizes the other's hands, with fingers interlaced. Then begins a battle royal, each student endeavouring, in this exercise, to pull the other forward. The one who has been agreed upon in advance as the assailant wins the victory at last, but the contest should be a stubborn one. The contestant turns her right knee to the right, and her left knee to the left, in the wriggling struggle to drag her opponent, but the strain upon the wrists and fingers should be severe at all times.

By the time that the two contesting students have mastered the preliminary training for the fingers and wrists, there is another exercise that may be taken up—but this cannot be done satisfactorily until the contestants, through much of the first work, have put themselves in trim. Now the opponents stand back to back, extend the hands backward, just below the waist-line, and clasp fingers in inter-

lacing fashion. Each tries to drag the other forward, the agreed-upon assailant winning the victory at last. Then, after a few deep breaths the victim turns assailant and drags her companion. It will be found, however, that this work cannot be done well until the preliminary work of toughening thumbs, fingers, and wrists has been practised most patiently.

Last of all, there is a feat in the present stage of *jiu-jitsu* work that is most difficult in the way of good results. The two contestants lie on the floor, face downward, each raising herself a little on her left hand. It is necessary to depend a little upon the knees, but this should not be done more than is really necessary. Now, the contestants clasp right hands with fingers interlaced, and each tries to drag the other along. This may be varied by twisting the victim to right or to left with the hand engaged in the clasp.

Then comes the change. Each contestant raises herself on her right hand, employing the left for the clasp, and too much cannot be said in favour of giving to the left arm all the work that the right receives. The twist from side to side,

while in this position, will be found difficult at first, but it can be mastered, and with splendid results in the strength of the fingers and wrists.

An exercise that the student may perform by herself, and as often as may be, is this: Stand with the right arm slightly extended in front. The thumb should be up and the fist clenched. With the left hand encircle the right wrist. Now, attempt to force the right hand over to the right side, making the right hand resist the pressure all the time by a pressure to the left side. Then treat the left hand in the same manner, forcing it over to the left while employing, all the while, a resistant pressure to the right.

As a change of work, in some practice bouts, the two students are required to stand facing each other. They extend hands, palms downward and just below the waist-line, and interlace fingers with each other. Now, the agreed-upon assailant raises her victim's hands slowly up and over her head, bending her backward slightly. Then the late victim, turned assailant now, forces her companion's hands back to starting-point.

She who has mastered fully the exercises given in this chapter—she who has devoted to it much of the time spent in the practice bouts during two weeks—will be able to pass on to the work for the back that will be described in the next chapter. But the wrist work cannot be slighted if the best results are to be achieved. In a system of physical training where so much depends upon the strength of the hands and wrists the work just described must be taken up with a firm purpose of mastery.

Just one last caution about the wrists: Do not take each of the exercises prescribed in every practice bout. Vary the work as much as is possible. When tired with the other work stand erect with hands clasped overhead. Twist the right wrist slowly over to the right, and then the left wrist to the left, always resisting the pressure. This work is done in similar fashion when the two contesting students face each other and interlace fingers over each other's heads. First one student employs her right hand in twisting her opponent's left hand over to the victim's left side. Then the victim should twist back to the original

position. Then the other hand of each student is employed in the same manner. It is possible to employ considerable strain in this work, and the danger-signals of panting and palpitation should be looked out for.

With the amount of work described in this chapter the student should be contented for a while, and, in the meantime, should pay more attention to the very simple but highly essential exercises described in the earlier chapters. No set of exercises should be done for two days in succession. A sufficient number of exercises have been suggested now so that no student needs to duplicate one day's work with the next. There should be, at all times, as much variety as is possible. Nor is it safe to pick out all of the hard work for any one practice bout. Take the heavy work with the light—with much more of the light work than of the heavy.

Above all, *do not forget to breathe properly during every practice bout and between exercises.* The purer and colder the air that is breathed the better!

CHAPTER VI

EXERCISES FOR THE BACK, ESPECIALLY FOR THE SMALL OF THE BACK

THERE is no portion of the body, unless it be the wrist, where the average Anglo-Saxon woman is likely to be as weak as in the back. In the construction of a perfect physical body this proves a serious defect. Especially is this true of what is commonly known as the "small of the back." It is vital that a woman should have strength in every portion of her back. It is a common thing to hear a woman—and especially one who wears corsets—complain that she has no strength in her back.

The first thing to do is to throw away the corsets—to put them in the ash-barrel, where they belong. It is a common fallacy among Anglo-Saxon women that the corset gives strength to the back. It never has done, nor will it ever do this. All that can be said of

the corset is that it mars the feminine figure in its perfection, and that it causes weakness—not strength—in the back.

While the author has never taken pupils in *jiu-jitsu* for a fee, he has had the pleasure of instructing several women who were willing to follow his directions. Invariably the first requirement has been that the pupil discard corsets for all time to come. In the case of the author's own wife, who is inclined to more flesh than she desires, especially at the abdomen, the discovery made was that, at the end of a three-weeks' relief from corsets, the abdomen had come down an inch and a quarter in measurement.

It is very likely, of course, that the exercises that went with the abstinence from corsets had something to do with this result. Yet it will be plain to any woman reader who *thinks* that the corset, no matter how "loose" it be, constricts the upper portion of the body, and that any tendency to fleshiness must find its opportunity along the lines of least resistance. This opportunity is found at the abdomen, and so the so-called "straight-front corset" becomes

a necessity. In the small of the back, where there is no tendency to accumulate flesh, and where there is little support to be had from the corset, the muscles become weak, flabby—oftentimes almost useless.

A short study of the bodies of the models who have posed for the illustrations in this book will make the reader understand just what is intended to be conveyed. The shorter model had the good fortune to have a mother who never attempted to put corsets on her child. This model is sought eagerly by artists for posings, for the reason that a life without corsets, and the frequent employment of exercise, have given her a torso that makes her a necessity to artists who wish to paint the perfect body.

On the other hand, the taller model, as perfectly developed as she is, betrays in the trunk of her body the fact that she wore corsets as a girl. Some years ago she gave them up, and her torso is returning gradually to the normal figure of the perfectly developed woman. She attests the fact that her back is much stronger now than it was at any time in her young

girlhood. In these days she could not be hired to wear corsets unless she became utterly regardless of her health and figure.

To many an American and English woman the foregoing will not prove to be agreeable reading, but the truth should be sought. The women of ancient Greece knew nothing of corsets, but their figures gave the inspirations that are to be found to-day in the art galleries of all the civilised world. The average Japanese woman of to-day shows a figure as perfectly moulded, and as true in proportions, as the women of ancient Greece were able to display. Yet the perusal of a Japanese paper would not show a single advertisement of a corset. The very few women of the Empire who ape our customs enough to wear corsets are compelled to order these things through some American or European house that trades in the Far East.

Once the former victim of corsets has discarded them—for good and for all—she will find the benefit that comes from the exercises that are described in this chapter. There will be little or no benefit so long as corsets are

No. 20. THE REAR CLUTCH FOR STRENGTHENING THE THROAT.

worn, even though they be discarded in practice bouts.

Photograph number twenty shows the principle of an exercise that may be followed to great advantage if it be taken up often enough. Of course, it must be understood, as in preceding exercises, that victim and assailant must resist each other sufficiently. The assailant stands at the rear, clasping her hands around the throat of her victim, the clenched hands being just under the chin. At first the victim is allowed to bend her head as far forward as is possible. When this position has been taken the assailant bends her victim's head as far back as she can, the victim all the while resisting. As soon as the victim has gone back as far as she can she brings her head back, by degrees, to the starting position, the assailant being the one who now resists in the return. Then assailant and victim change places, and the work is done over again. This work is of gradual benefit, but its results are sure.

Another form of this exercise is depicted in photograph number twenty-one. In this the

victim stands with her arms extended laterally. Behind her is the assailant, who clasps hands with her, the fingers being interlaced. As before, the victim is allowed to bend forward as far as she can. Then the assailant places one of her knees—generally, but not always, her left—in the small of her victim's back. In this position the assailant draws the victim over backward, the latter resisting all the while by as much pressure forward as can be used. As soon as the victim has gone as far back as she can, she bends forward again, the assailant now resisting. But the assailant's knee is not taken away in the return. It follows, of course, that, after some deep breathing, assailant and victim change places and repeat the exercise.

The value of this work cannot be overstated. It should be taken up, by the student who has reached this stage through faithful exercise, in at least every second practice bout. It is not necessary—not, in fact, advisable—for more of this work to be undertaken than will be had when each has bent the other backward.

Much has been said already of the need

No. 21. THE SMALL OF THE BACK BEND.

for thinking students to devise for themselves variations of all of the exercises described. The writer will offer one hint, and then will leave the rest of this branch of the work to be thought out by the reader. Take the clasp, as shown in photograph number twenty, and place the knee in the small of the back, as is depicted in photograph number twenty-one. Now, let the assailant pull back, while the victim resists. Then the victim must pull herself back to starting position, and all the while against the assailant's resistance.

The next exercise that is taken up for the back is one so simple that it does not call for pictorial depiction. The two contestants stand facing each other. The victim bends her head slightly forward. The assailant, standing at the right of her victim, throws her own right arm just over the victim's neck—not the back—and places her right shoulder under the victim's left shoulder. In somewhat similar manner the assailant places her left shoulder under the victim's right shoulder. Now, the assailant clasps her hands, as near as may be, before the victim's waist. The victim is allowed to

take hold of her assailant's hands or wrists in any way that may be most convenient.

When this position has been secured, the assailant should use her right arm as a leverage over the victim's neck to press the latter down toward the floor. All the while the victim should resist this attack by a pressure upward. Of course, all of the advantage lies with the assailant, but the latter should exert just enough pressure to compel the victim to bend gradually forward. The assailant goes down slowly until her right knee touches the floor.

Now, the victim, held in the same clinch, is required to rise to nearly an erect position, the assailant all the time exerting enough downward pressure to make the victim's rising all but impossible. The assailant will be dragged by degrees from her position on her right knee to an erect position, and then she lets go of her victim.

As soon as this has been done both students should rest and take deep breaths. Then the work may be taken up again, with the *rôles* of assailant and victim reversed. When this work is taken up, at first, it is advised that

No. 22. A STRONG RESISTANT EXERCISE FOR THE BACK.

one trial for each be all that is employed. The work will not strain either student severely, and, in time, it will be possible to devote safely the greater part of a practice bout to this one feat. A very little study of the muscles employed will show wherein the benefit is to be found. The exercise is valuable, especially, to the muscles of the rump, to which no attention is paid in the American or English systems of physical training. And the small of the back will receive its full share of the benefit, as will the neck.

Photograph number twenty-two shows the victim with her back to the assailant. The latter clenches her companion's hands, held as nearly laterally as may be. It makes no difference whether the hands be held on a level with the waist-line, or on a level with the shoulders. Or the hands may be held at any point between these two portions of the body. The victim is allowed to bend as far as she can. Now, the assailant pulls her companion backward, the latter resisting and yielding but very slowly. Once the victim has gone as far over backward as she can do the work, she returns,

the assailant now applying the resistance. The victim must return to her original position of bending forward. With the hands held at any level from the waist-line to the shoulders, there are enough variations of this work to be had.

And, in this connection, the caution should be repeated, with added emphasis, that there is no benefit to be had from overdoing. Moderation is the Japanese rule. Palpitation of the heart or shortness of breath is an infallible indication that the work is being done too severely. Unless both students are able to go through this exercise without distress, it is an indication that the work has been hurried beyond the limits of the preliminary work of the course, and that results are being attempted more rapidly than it is possible to hope they can be achieved.

Moderation! There is no sense in haste, and only ultimate harm can result in work for which the body has not been fitted by degrees. No one can hope to become strong in a week!

By way of variation, a much easier exercise is shown in photograph number twenty-three.

No. 23. BACKWARD AND FORWARD BENDING AS RESISTANT WORK FOR WRISTS.

In this work the two contestants stand facing each other. One student clasps the other's left hand with her own left hand. Then one pushes the other's hand over backward slowly, while the other resists. As soon as the one bending backward has gone over as far as she can, her companion pulls her back again to a position of bending forward. In this exercise both students should be careful to employ sufficient resistance. Otherwise the work will be of little value. Unless some strain is felt in the small of the back of each contestant in turn, it will be necessary to use more vim.

It should go without saying that the foregoing exercise should be used also with the right hands of the contestants clasped, but, as the tendency is to develop the right side of the body at the expense of the left, this work should be done rather more with the left hands than with the right

As an indication of what the student may think out for herself, let her lie flat upon her back. Let her lie with her hands on the floor slightly back of her shoulder-blades. Now, let her attempt to raise her body from the

floor, resting all of the weight on her hands and heels. She will not be able to lift her body far from the floor, but the ability to raise it at all, with only the heels and hands for support, should be a gratifying test of strength.

While lying on the floor, flat on the back, try to spring to an erect position without using the hands in the movement. This is an exercise not unknown to American and English instructors in physical training. While the work, if done successfully, shows very excellent development of all the muscles of the body, it proves, also, that the back muscles need training only at intervals after this feat can be accomplished. Exercises for the back need be undertaken only once or twice a week when this can be done—but the test may be employed as often as the student wishes after the muscles have been hardened sufficiently for the performance. A new student in *jiu-jitsu* will find, almost always, that the trick is impossible to her.

A very simple form of work for the back is found when the student lies on the floor on her

back, with her elbows slightly apart from the body, and her hands up, or with hands resting on the hips. In this position she should wriggle across the floor from one end of the room to the other, moving as sinuously as she can, and never allowing either hand to touch the floor in order to aid her movements. While, at first, this exercise will be difficult of accomplishment, it becomes easy by stages. In time, this form of movement becomes as easy as walking, and then the student knows that she is developing very fair strength in the back.

There is another form of back work that is much easier, and this exercise may be performed several times in a single practice bout without fatigue. The student throws herself forward upon her knees, with the flats of her hands resting on the floor in front of her body. Then, with the aid of her hands, she rises quickly to a standing position. The movement should be a spring, and only very little study is needed to show how much the muscles of the small of the back are benefited.

This should suggest another form of work

for the back that may be attempted, even before the student has really reached the stage of development that is called for in most of the exercises described in this chapter. She should lie on the floor, on her right side, and raise herself on her right hand and heel, holding the rest of the body clear of the floor. Her left hand is held up, as she turns gradually over, and it is lowered to the floor only when she finds that member necessary to support her in a complete turn over to the left side. As she comes down at the left side only left arm and heel should touch the floor until the student has held herself for a few seconds.

At the outset this work will be difficult of achievement, but in time it can be performed by any woman who pays sufficient attention to the resistant principles of *jiu-jitsu*. As soon as the ability to turn the body over in this fashion has been acquired, then the student should manage by degrees to apply a resistant pressure of the left side of the body while turning over to the left. In like manner, when turning the body from the left to the right, re-

sistant pressure of the right side toward the left should be employed.

There is no excuse for aching backs, except in cases of severe illness, or where the back has been abused. Japanese women suffer no more in their backs than they do in other portions of their splendidly built bodies. If followed intelligently and patiently, the exercises described in this chapter will make American and English women forget that they have backs that can ache.

When the late General Lawton was informed by an American surgeon that he showed serious indications of liver trouble, he replied:

"Really, you astound me. I have never felt any discomfort there. In fact, I am not at all sure that I know in just what part of my body my liver is situated."

The Anglo-Saxon woman who follows faithfully all of the Japanese rules for the training of the back will become, in time, equally ignorant of the fact that she has a back—at least, one that can ache!

CHAPTER VII

THE PERFECT CHEST — THE BEST DEVELOPMENT FOR THE HOLLOW OF THE BACK, AND FOR GIVING STRENGTH AND PROPER PROPORTIONS TO ARMS AND LEGS

MANY Anglo-Saxon women hesitate to take up any form of patient and serious exercise through the dread that it will spoil the contour, and supply them, instead, with bulging muscles that show "knots" and "bumps." With the Japanese work the reverse is the case. The figure of the Japanese woman who has taken her course in *jiu-jitsu* is a thing of beauty.

A woman whom the author has had the pleasure of instructing in the work was told that she would not do as a cloak model because she had an unfortunate hollow in her back between the shoulder-blades. It was suggested that this might be overcome through the em-

No. 24. RESISTANT SWAYING FROM SIDE TO SIDE.

No movement backward or forward.

ployment of pads at that point; still, on account of this defect, the young woman was not in much demand. When she went to work at the exercises described in this volume, and especially in this chapter, it needed but three weeks to show her a gratifying filling out of the hollow. The chest improved in the same ratio, and there was a gradual filling out of all the undeveloped parts of the body.

There can be no loss of contour through exercise of the proper kind. Every exercise that is taken so that one muscle is resisted by another will benefit the body, fill out the flesh, and make for the perfection of contour.

In photograph number twenty-four is shown an exercise that is beneficial just in proportion to the amount of intelligence with which it is used. In this the two contestants do not fall forward more than is necessary. The hands are held sideways, and as nearly as may be on a level with the shoulder. Then a clasp is taken by the opposing hands, with an interlacing of the fingers. Now, the one who is to act as the assailant must try to walk around the victim, either to the right or to the left,

the victim all the while resisting in the opposite direction.

The assailant walks, but the victim must not. All she does is to pivot upon her heels. The victim must apply enough resistance, but the assailant must gain the victory. When this has been done, and the victim has been pivoted completely around, then she must become assailant in turn, and force her companion once around. Then deep breathing is employed before the contestants make a trial at the other side.

In fact, all through this exercise deep breathing should be much in evidence. The student who has reached this advanced stage should put a great deal of resistance into the work. There should be no half-way use of strength. Even when the victim is much stronger than the assailant, the former should make the victory possible only by the use of a great deal of strength. It is not necessary for either contestant to be ashamed to pant—provided this is done, not as a sign of weakness, but for the purpose of obtaining deep breaths while the exercise is in progress.

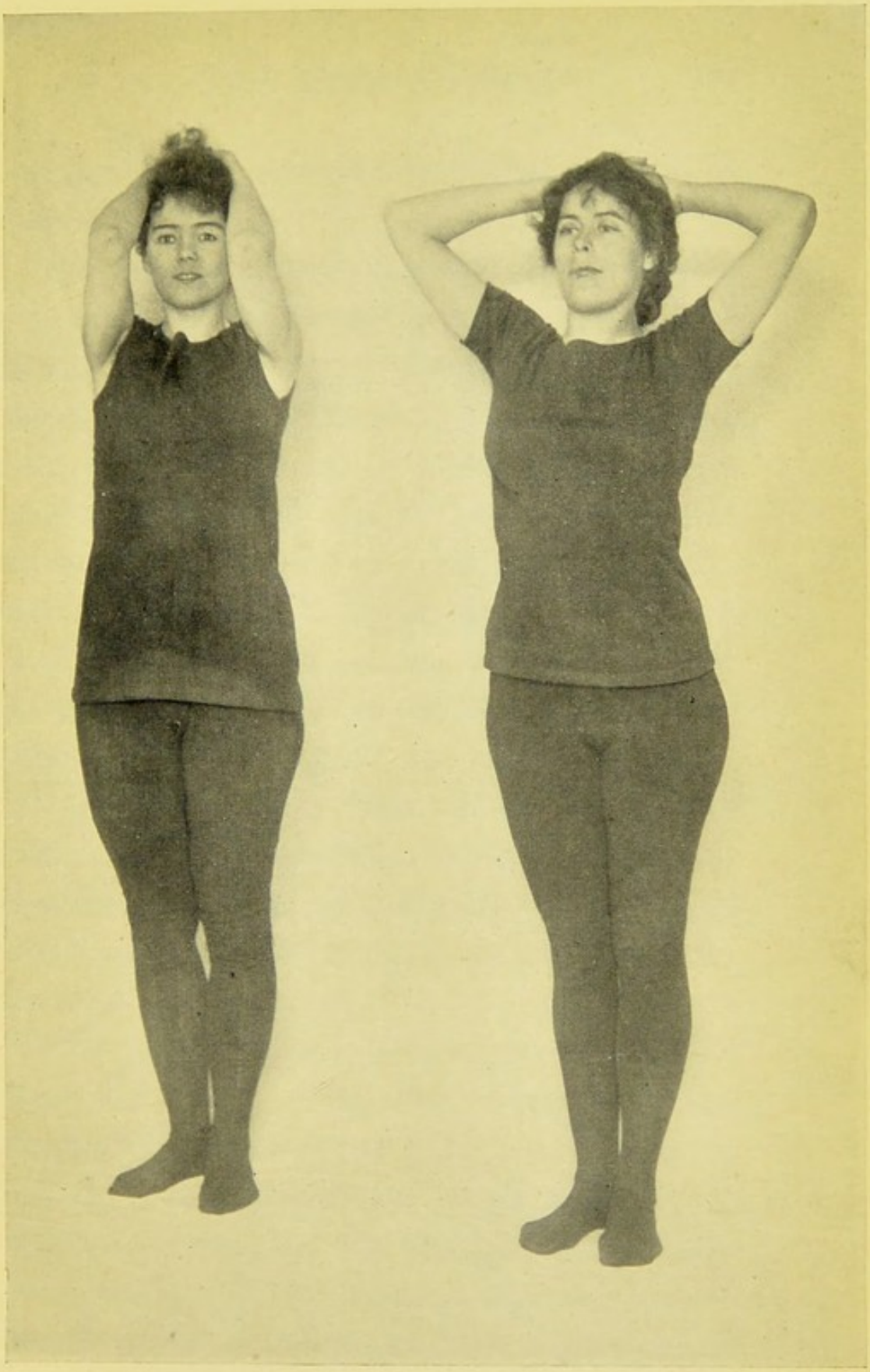
While at this work, a useful variation may be found in another exercise that is described very simply. Taking the same position as before, let the assailant force one of her victim's arms downward and the other upward. On both sides there should be much resistance on the part of the victim. Then the victim turns assailant, and forces one of her companion's arms upward and the other downward, the latter now resisting.

Then there is still another form of the work. First of all, the two contestants take the same position as has been described. The assailant, bending backward slightly as the work demands it, brings her victim's arms forward, the latter resisting as much as is necessary. While the arms of the victim will have to come forward somewhat, they should be kept horizontal, and as nearly sideways and as much on a level with the shoulders as is possible. When the assailant has gone as far over backward as is possible, then the recent victim should drag her back as far in the opposite direction.

There is yet another form of the work that may be employed once in a while with

advantage. When position has been taken, with the arms stretched out laterally, and the hands clasped, the assailant may twist her victim's hands inward, the victim resisting. When the latter's hands have been twisted inward as far as may be done, she should retaliate upon her assailant by returning to starting position, or a little past it.

It is well, in the development of the body, to alternate a severe exercise with an easy one that does not require much strength. Here is one: After the last work, take a few deep breaths. Then stand perfectly erect and clasp hands over the middle of the top of the head. The elbows will be about on a line with the temples. Move them slowly forward, with, all the while, a resistance backward. When the elbows have gone forward until they touch, move them backward as far as they will go, and always with resistant pressure in the other direction. The illustration afforded by photograph number twenty-five will give the essentials of this simple feat. But it must be remembered that there can be no benefit to be had from the work unless the idea of resisting



No. 25. AN EXERCISE FOR DEVELOPING THE CHEST AND THE HOLLOW BETWEEN THE SHOULDER-BLADES.

always in the opposite direction is kept in mind.

Next in order comes the pole work, of which too much cannot be said in praise. The pole is about the only bit of apparatus that is to be found in a *jiu-jitsu* school. It is of bamboo, but a curtain-pole or a broom-stick will do every bit as well. In the first exercise, as shown in photograph number twenty-six, the two students stand facing each other, each having both hands on the pole. The pole should be of a length of about five feet. It is raised over the heads of the two contestants. The positions of the hands should be studied with care. The assailant has her right hand outside of the victim's left hand, her left hand inside of the victim's right. Each seizes the pole with an over-hold.

Now, with the pole held as far as may be over the heads of the two contestants, the assailant endeavours to press the pole over sideways, each student bending to that side as much as is needed, but the victim resisting. As soon as, in this fashion, the victim has been twisted over as far as she can go, and the

pole is nearly horizontal with the floor, the victim should twist the pole up again to starting position and over to the other side. Whichever student is resisting should do so with all the strength that can be employed without preventing the other's victory. It is necessary always to remember that, in bringing the pole up again, it should be carried, at its greatest height, as far as is possible over the students' heads. Then it may be forced down on the other side.

There are so many variations of this exercise that it is necessary to explain only a few. The first of these hints is that the students stand at each other's left sides facing in opposite directions. The victim takes hold of the pole with her right hand at one end, and with the back of that hand upward. The assailant grasps the other end of the pole with the back of her left hand downward and the back of her right hand upward.

This position should be studied with care. Neither one should take hold near the middle of the pole. The victim's right hand is expected to be at a distance of from six to eight

No. 26. THE RESISTANT POLE WORK.
One of the best possible exercises for the entire body.

inches from her end of the pole. The assailant's left hand should be at about the same distance from her own end of the pole, and her right hand a little more than a foot farther toward the middle. When it is certain that this position has been secured the assailant begins to force the victim's hand up over her head. The victim's hand must be forced up and over backward, the victim being made to bend her torso backward. Then a twist is given that swings the victim completely around, and the pole is taken away from her. Now the same work is taken up at the victim's left side. The assailant must stand at the right side, and now she clutches the pole with the left hand back downward and the right hand upward. All of the value that is to be found in this work comes from the resistance that the victim offers—always provided, of course, that the victim does not offer resistance enough to defeat the assailant.

This pole work may be changed, and with advantage, if the two students stand grasping the pole with the hands placed as is shown in photograph number twenty-six, but with the

pole held just below the waist-line. Now, the assailant twists slowly around to the right, walking as much as is necessary. The victim resists, using her heels as pivots only. Next, the assailant twists her companion to the left. Then, as a matter of course, assailant and victim change places.

It is both amusing and profitable to try the "tug-of-war" with the pole. Each contestant seizes the pole with one hand near the end and the other hand much nearer the middle. At the start the feet are wide apart, but, as the struggle goes on, the feet are brought more closely together. The victim, if indoors, stands close to the wall, and the assailant drags her over to the other end of the room. Both students should be as stubborn in the struggle as it is possible to be. As soon as enough breath has been taken, assailant and victim should change places and the "tug" should be tried again. Four of these "tugs" are considered enough for an advanced student; at first, two will do.

One advantage of the pole work is that much of it may be performed by one woman when

No. 27. RESISTANT OVER-ARM WORK.

there is not another present with whom to practise. It is possible for the student to raise the pole over her head and to bend to either side; but she should remember always to use resistant pressure toward the other side. In the same way, she can hold the pole just below her waist-line, turning as far as she can from side to side — provided she remembers the principle of resisting in the opposite direction.

Photograph number twenty-seven gives the key-note to a style of exercise that may be used in a great many ways. Three will be described, and it will be left to the student to devise others.

First, let the contestants stand facing each other. The assailant takes the victim's right hand in her own and nearly at arm's length. The backs of the hands are upward, somewhat on a level with the shoulder, and the fingers are interlaced. Now, the assailant twists her companion's hand up and over backward, forcing the latter to bend over. A complete twist of the victim's hand may be made before the clasp is broken. Then left hands may be clasped and used in the same manner. Once

in a while it is well for the assailant to clasp the victim's left hand with her own right, and then to reverse the assault.

Second, let the contestants stand at arm's length, with fingers clasped and palms downward. While holding the engaged hands nearly on a level with the chest, one student is expected to turn the other's hand upward, over, and out until the victim is compelled to bend over almost to the floor. Both hands of each student must be exercised in this work. The arms should be kept as straight as is possible.

Third, let the students stand facing each other with right hands clasped in the same way. The assailant uses her right hand to swing her opponent's right hand up, over, and around the former's head. The victim's hand is carried over the assailant's head to the latter's left, and victory has not been achieved until the victim has been swung completely around. Then the change should be made with left hands opposed, and, after that, with the right hand of one contestant opposed to the left hand of the other. But when a left

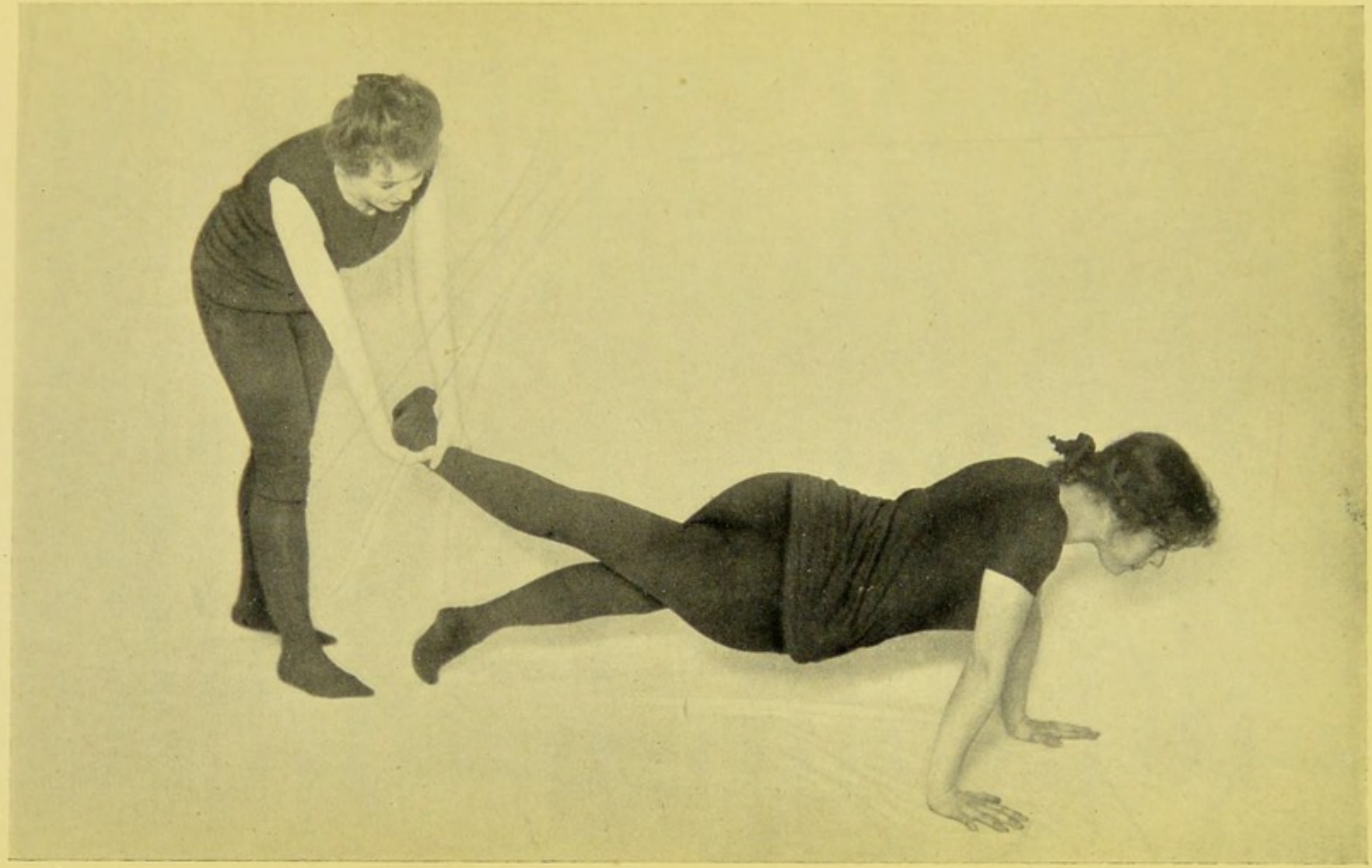
hand is opposed to a right hand the swing should be made in exactly the opposite manner to that already described.

All three of these exercises are to be done in a way, and with a vim, that will make not only for the development of the wrists and arms, but for the benefit of the entire torso as well. The student should study the strain of all the muscles that can be brought into play, and should note that each is being strengthened. As an instance, the small of the back should be improved in strength; the forearm and the upper arm should show a tugging at the muscles; if there is weakness in the abdominal muscles, these should be made to feel the strain; if the chest is flat, the muscles there should be brought into play by one of the three foregoing exercises; and, if the student cannot accomplish this, she should study out a parallel form of exercise that will make the muscles of the chest feel some strain. The thighs, the upper legs, and the calves are to be made stronger in the work that has just been described, and the intelligent student will find out how to do it.

When the muscles at any one part of the body are found to be strong enough, pay no more attention to them for the present, but trust to the general system of work to bring about the desired improvement in them. First of all it is necessary to get after the weaker muscles or portions of the body. Then the stronger ones can be treated in their turn.

While strengthening the back, there is work that can be taken up with advantage in this region, and also with benefit to the legs. The victim lies on the floor, face downward. She raises herself on one foot, at the toes, and upon both hands, lifting her body wholly from the floor. The disengaged foot is raised clear of the floor, and is held as nearly parallel with the floor as is possible. The assailant takes hold of the raised foot at the ankle and twists the leg first to one side and then to the other —always employing the twist to the utmost extent that the victim can endure. Then the other leg is treated in like fashion.

There is to this, as in every other exercise in *jïu-jïtsu*, a variation. The victim lies on her back, raising herself on both hands and on one



No. 28. THE BEST RESISTANT LEG WORK.

heel, with the other leg held up. The assailant takes the same kind of a hold as before, and twists the leg over to the outside, and then back again, the victim resisting, always, the pressure in either direction.

In photograph number twenty-eight the method of this style of attack is shown very clearly. There will be no difficulty in any student's devising other methods of this work; but, first of all, the essential principle must be studied carefully. The pressure in twisting the leg, and the counter-pressure used in resisting, should be severe.

And now, in closing this chapter, I will offer just one hint for a variation of the work that might not occur to the average student. Let each stand facing the other, with arms extended laterally. The hands should be clasped, and on a line with the shoulder. Each student should stand on her left foot, the inside of the ankle bone of her right foot placed against that of the other, and both right feet raised slightly from the floor. In this position the assailant hops around her victim, turning the latter to the left. The victim pivots on her left heel,

resisting as much as she is able. One complete turn is enough.

At the outset this work will be found to be difficult, but it can be mastered; and when it is felt that the muscles of the leg and of the back are being brought into play, the student will know that the exercise is being carried on in the right manner.

No. 29. RESISTANT WORK FOR BOTH SHOULDERS AND ARMS.

CHAPTER VIII

STRENGTH IN THE NECK, UPPER AND LOWER ARMS, AND WRISTS, THE THIGHS, UPPER AND LOWER LEGS, AND ANKLES

WHILE nearly all of the exercises described so far are intended for the general benefit of all portions of the body, those that are to be given now are intended more for service to the especial portions of the body that are named in the title of this chapter. It is for the student to discover, with the aid of such hints as will be given, the muscles that are brought into resistant play and which are thereby strengthened.

In photograph number twenty-nine a pupil is shown standing with her hands on her hips, elbows outward, in the well-known position of "arms akimbo." Keeping her hands on her hips, she moves her shoulders forward and

backward. The elbows are not moved more than is needed for the free movement. In doing this work it is much better to move the shoulders up and over until the shoulders have gone back as far as they will. Then the shoulders should be moved forward again by an exactly reverse motion. With these movements only the slightest bending backward and forward should be employed. The aim should be to remain as nearly erect as is consistent with the proper performance of the feat.

It should not be necessary to tell the advanced student just what muscles are benefited in this way. The student who has gone thus far in the course should be able to decide such points for herself. But a hint may be given. The muscles at the side of the neck, and especially in the back of the neck, are brought into play, and the muscles on the shoulder-blades receive full exercise. The pupil can discover for herself what other muscles are used. But this exercise will fail in its very excellent purpose unless the backward bending of the shoulders is resisted by considerable muscular pressure forward. In the same manner the re-

turn movement forward should be resisted by pressure backward.

Next the student may lie face downward on the floor. Rise on the hands and the toes, with no other portions of the body touching the floor. Twist the shoulders backward and forward in the same manner — always resistantly. This is not an easy feat for the beginner, but it should be quite possible of accomplishment, with the needed patience, to the student who has progressed so far. A still more difficult manner of performing this feat is found when the student lies on her back, then raises herself on her heels and hands, the latter, with palms down, on the floor behind her. At first it will be found difficult to avoid falling.

Clasping each other on the backs of opposing shoulder-blades, let the students cross necks, left side opposed to left side. It is not sufficient to press the sides of the faces together. That is the wrong attitude. The left ears of the contestants must not touch, but each must have her ear well forward over the back of the other's shoulder. The necks must *cross* in the

form of the letter "x." Each of the combatants must lean slightly forward.

Now, for starting position, the one who has been chosen as victim bends easily over as far as she can go to her left side. Then the assailant slowly forces her victim's head over to the latter's right side, the victim giving proper resistance. When the position has been reached the victim forces her assailant's head back to starting-point. When this work is practised with proper vim and with all reasonable straining of the muscles, it will be found that not many repetitions are advisable in any one bout. But, after a few days, the work will be found to be of immense benefit to the neck.

There is a simple bit of work that is tried in occasional bouts as a substitute. The direction is so simple that no illustration is needed. The contestants stand facing each other. The assailant throws her right arm around the victim's waist as far as she can. With this hold she presses the edge of her left forearm against the victim's throat. Then slowly, but surely, the assailant presses her companion's head over backward as far as may be done without caus-

ing a fall. Of course the victim uses her back and neck to resist all the while. As soon as the head has gone back as far as may be done the victim forces herself, against the assailant's continued pressure, back to an erect position. Then the attack is tried from the opposite side —that is to say, with the assailant's left hand around the victim's waist and the edge of the right forearm employed in the pressure against the throat.

An exercise that is of especial value to the whole arm, including the wrist, is when the two contestants face each other, clasping right hands or left hands,—but each should use the hand of the same side of her body,—two right hands or two left hands clasped. Now the assailant steps a little to the side of her victim, brings the latter's hand up over the victim's head, and twists her over as far to the floor as is possible, the victim bending over sideways in the defeat. As the victim comes back to erect position the assailant resists the return. Then the work is tried with the right hand and left hand of the respective combatants opposed. The forcing over of the victim should be

carried to the farthest point that is consistent with the victim's comfort. After a little practice it will be found possible almost to lay her on the floor on the side of her face, but the feat should not be carried thus far until both pupils are sure of their strength. A very good idea of the work in this exercise is given by the pose in photograph number thirty.

Another form of arm training that will be found excellent in its turn, as a substitute, is when the two contestants face each other, both bending forward. The hands are clasped, backs downward and the fingers interlaced. Now, each throws herself as far backward as she can, and the assailant drags her victim across the floor, the latter resisting. Then the same work is attempted with left hands clasped in the same fashion. When the work is done with either the right or the left hand the victim, when she has been defeated, should drag her assailant back to starting-point.

Then the hands may be clasped in similar fashion, but with the palms downward. The same dragging follows, and, at the completion of victory, the assailant wrenches her victim's

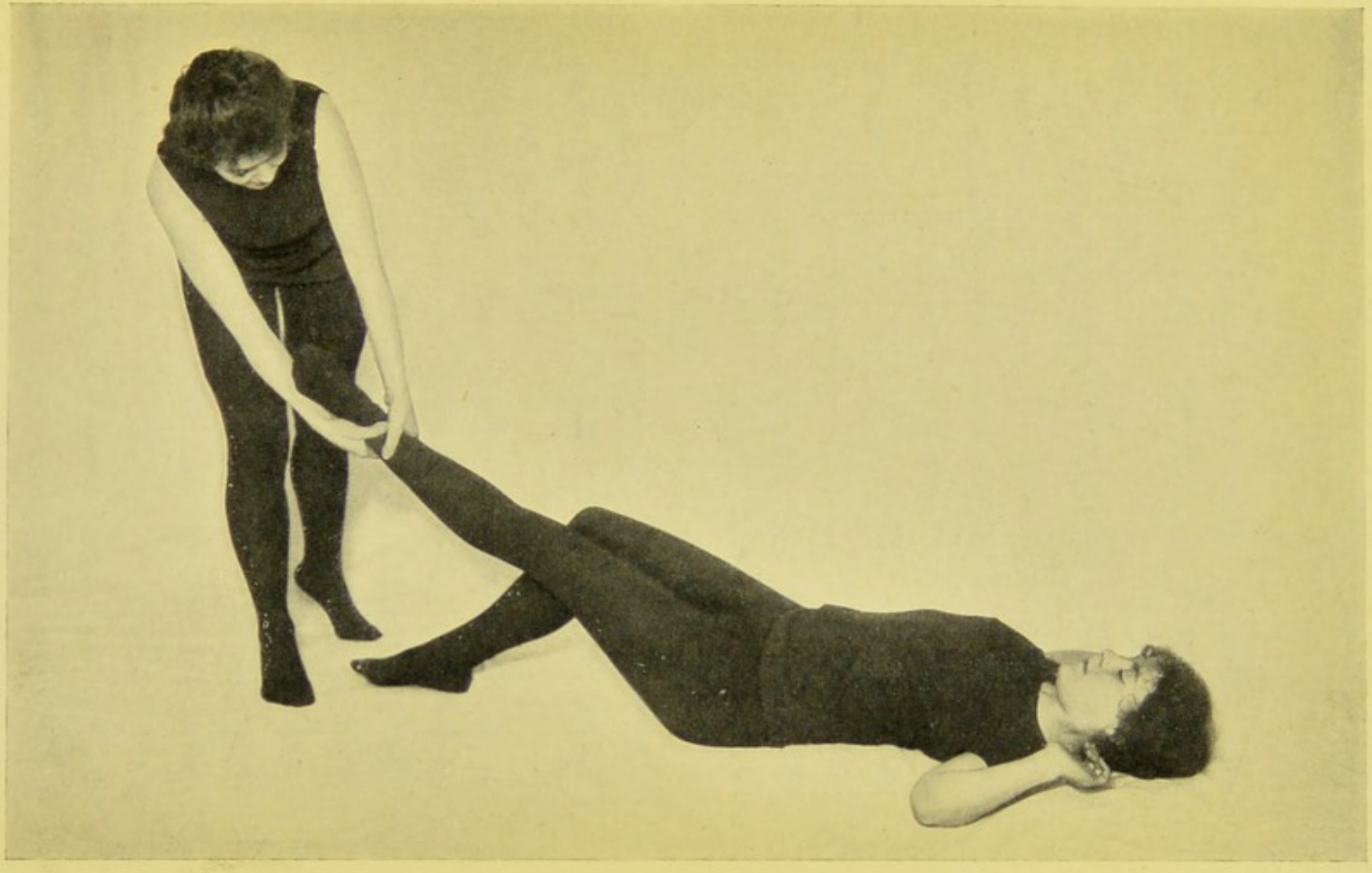
No. 30. WORK FOR THE UPPER ARM AND FOREARM.

arm up and over her head, the victim being prepared, at the utterance of a signal-word, to resist the upward strain.

There are so many variations of this work that it is not possible to suggest them all, and the student can figure them out for herself if she is making an intelligent analysis of the muscles that are brought into use. For instance, let the contestants stand facing each other, but each a little to the left of the other. The aggressor, with her right hand, seizes the other's right hand. The clasp with fingers interlaced is the best one, although others may be used. Now the assailant raises her victim's hand slowly up over the latter's head, then down and over backward, and swings the victim around to the latter's left and then, continuing, to the original position. Next, the left hands are employed in the reverse direction as to the swing. When the victim's hand is back of her head the forearm should be in a position almost horizontal. Then, as the twist is made that forces the victim to turn around and to come back to starting-point, the forearm is lowered considerably.

It will be understood that the exercise just given is very similar to the one in which the victim, with one hand on the pole, has that hand carried up, over, and back of her head, and then is made to swing around to starting position. But this exercise without the pole is excellent; and, in some respects, it is superior to the pole work. The advanced student will be expected to watch the play of her muscles and to discover the difference between the two exercises.

Photograph number thirty-one shows a form of training that is intended principally for the exercising of the ankles and the calves, but this work carries with it benefit to all the muscles of the leg. The victim is required to lie on her back. She raises the right foot some inches from the floor, and the assailant seizes it at the ankle—always at the ankle, and never higher up. Now, the assailant twists the captured leg from side to side, and as vigorously as she can. At the same time the victim tries to twist her captured leg as far as is possible in the other direction. With this movement there should be a slight twisting of



No. 31. RESISTANT TWISTING OF ANKLE AND LEG.

the lower portion of the trunk, and of course the victim should resist with her trunk as well as with her leg.

Then the left leg is twisted in the same manner, after which aggressor and victim change places. The work, however, will prove to be of little or no value unless both students use all the pressure that is possible. It is worthless if the victim allows her leg to be twisted from side to side without any effort in the opposite direction. If the resistance be sufficient the assailant will have as hard work as she gives to her companion. This is an exercise that should be employed frequently by the advanced student.

The pupil who has been urged sufficiently to analyse movements for herself, and to make practical evolutions of them, should not need much time to discover that a variation of the foregoing work may be had when the victim lies face downward, raises one foot, and gives the assailant a chance to twist it in the same way. Still another form of the work is to be enjoyed when the student lies on either side and allows the uppermost leg to be twisted

upward. In all three of the positions it is well worth while if, occasionally, the aggressor raises the captured leg as high as it can be made to go. And this is true even if, in time, the aggressor is able to raise the leg so high that the victim is all but compelled to stand on her head. But this achievement must come with gradual practice, and, at every stage of the work, the victim must resist with all the force that she can employ. When raising the victim's leg high in the air the assailant will find it useful to hold one hand just under the ankle, and the other hand, palm downward, just beyond the first hand. In this way better leverage is secured for the raising of the victim's body.

In *jiu-jitsu* work the very acme of muscular development has been reached when the students can perform the work, in all its entirety, that is depicted in photograph number thirty-two. The exercise and its variations are not learned easily. A great deal of time and study must be given to them. There must be thorough analysis of the use of the muscles, nor should any of the feats in this category be

No. 32. THE ACME OF A VALUABLE "JIU-JITSU" TRAINING TRICK.

attempted until both students are satisfied that the muscles have been hardened properly by means of the preliminary work.

The victim stands back of the assailant. The latter raises her right hand backward over her head, clasping the victim's right hand with fingers interlaced. Now the assailant bends forward, carrying her victim as far over as she can, the victim all the while resisting. Then the victim goes over backward, carrying her assailant as far as is possible. Next the left hands are employed. After that one contestant uses her right hand against the other's left. Where there is, as is usual among Caucasian women, inferiority of the left arm, that limb should be given rather the more exercise.

This exercise may be repeated or substituted when the two students stand back to back, with right hands or left hands clasped. Of course, in this position the palms will be downward. Then both hands of each contestant may be clasped. The work should be done, by advanced students of nearly equal capacity, with all possible resistance.

It will occur to the thinking reader that the

same work may be employed in a struggle over the length of the room. This may be done with one or both hands clasped, and whether the victim is facing her assailant, or whether the pair are back to back. The various forms are to be taken up in turn in succeeding bouts, the same form never to be employed out of its turn. Whenever the victim is dragged across the floor, in any form of this work, she is expected to take her assailant back to starting place—only provided that easy breathing permits!

It is to be remembered that with two contestants of nearly equal strength the advantage is all with the victim. She must allow her assailant to drag her forward, although not with too little resistance. In like manner, the assailant should exert all the strength that she can use without strain. With advanced students the work is to be done in such manner that the aggressor is obliged to use the fullest amount of her muscular strength.

Too much attention cannot be paid to the development of the strength of the ankles. Usually this is one of the weak points of the

American or the English woman. She is likely to complain that it hurts her to be too much on her feet. Some exercises for the ankle have been described already, but here is one that is very simple, and it should be tried in at least every alternate practice bout. Stand in an erect position, with the heels touching and with the front of the feet at an angle of about forty-five degrees. Now, while still keeping the heels in touch, move the feet outward and then inward, repeating this several times. The number of times that this is repeated should increase with each practice bout.

When this feat has been mastered thoroughly there is an interesting variation that may be used. Employ the same movement, but manage to move backward and then forward. Now it will be found impossible to keep the heels together. It is a sort of wriggling with the feet, and, in order to secure purchase enough to move either forward or backward, it will be found necessary to keep one heel in touch with the ankle bone of the other foot. After a few attempts at this exercise, however, it will be found possible to move in either direction with

not a little celerity—and the ankles will be the gainers.

Or, place the arms "akimbo." Stand on one foot, with the other held off the floor, backward. Do not move the foot on which you are standing, but twist the body, resistantly, from one side to the other, and do this as long as it is possible to keep the balance on the foot on which you are standing. Then, after deep breathing, attempt the same movement while standing only on the other foot. It is well to stand as erectly as may be done.

But, of course, the best exercise of all for ankles is given by constant walking. A phlegmatic woman is almost certain to have weak ankles, especially if she be stout, and little given to exercise. On the other hand, a woman of nervous temperament, who walks briskly, and who turns quickly when moving around, is certain to have strong ankles if she exercises them enough. Strength of the ankle comes most quickly from any form of exertion that calls for quick turning upon the heels.

It is an easy matter for any woman to discover when her ankles are sufficiently strong.

Let her twist either foot outward as far as it will go. She should hold her foot as rigidly as is possible, and then should feel the muscles of the ankle. While in the same position she may feel the muscles in the calf of her leg. Then, standing up, she may make the muscles of the upper leg tense and feel them. It will be interesting for the student to compare her own muscles, from the thigh down, with the muscles of any other woman whom she knows to be a strong, well-developed specimen of her sex.

The writer has made a critical study of the muscular strength of not a few specimens. Some have been weakest in the upper leg, some in the calf, and many in the ankle. Whichever part of the leg is weakest is the part that should receive the first attention. Yet no part of the body should be neglected. Wherever a weak part is discovered it should be made stronger.

CHAPTER IX

OBESITY AND LEANNESS, AND THE REMEDIES

WHEN a woman is dissatisfied with her figure this is due, generally, to one of two causes. Either she is too lean, or she is over-stout. The slender woman wishes to have more flesh and roundness of form. The stout woman wishes to become a trifle more slender. The perfect figure in womanhood does not call either for slenderness or for stoutness. There should be a happy compromise between the two extremes, and it is in this direction that most women wish to go in physical development. The perfect figure will have sufficient symmetry and size, but there will be neither exaggeration nor short-coming.

In *jiu-jitsu* the over-stout woman has somewhat the advantage in training to the proper figure. She can convert the surplus flesh into muscle, and this, if done properly, without los-

ing any valuable line of contour. The slender woman must make herself more stout through diet. Then she can take the stout woman's cue, and reduce the surplus flesh to muscle.

The diet for the slender woman should be an oily one, although it need not be one where food is used in excessive quantities. The principal articles of the diet should be nuts, milk, cream, butter, and oil. The latter may be either olive or cotton-seed oil, and this is used in the form of a dressing for salads, with lemon juice added in the place of vinegar. The bread that is used should be of rye or graham. White bread gives practically no nutriment, and should not be used. Most of the Japanese do not eat potatoes. If these are used at all, they should be very well baked. Rice, boiled in water that starts at a cold temperature and is allowed to come very slowly to the boiling point, and without much stirring of the rice, makes a most satisfactory substitute for bread and potatoes. In the place of meat, a fish, like the cod, which is easily obtainable in this country, furnishes much oily nutriment. Eggs, if they are hard-boiled, will help

somewhat to fatten. Cheese is an excellent fattener. While the author does not wish to advise the use of alcohol in any form, he cannot deny that claret, not too sour, will aid in the accumulation of flesh. Ale will accomplish a similar result. The student is not advised to add either of these alcoholic aids to the diet. Even if it is attempted, these forms of alcohol should be avoided as soon as the proper amount of flesh has been secured.

Parenthetically, it may be remarked that the Japanese are by no means total abstainers. Yet very few of them are hard drinkers. Most of those who do abuse the use of alcohol are men who have come into contact with Caucasians and who, very mistakenly, desire to be "progressive." If my several instructors in *jiu-jitsu* told me the truth—as I am certain that they did—not one of them believed in the necessity of building up the system by the use of alcohol, unless, first, the need had been created by indulgence. All advised the building up of flesh through the use of the oily foods.

When the too-slender woman has reached

the point of over-stoutness, she may take the same work that is advised for her obese sister. Each should strive to convert fat into muscle. If the student desires a severe diet, the breakfast should consist of boiled rice, with no other seasoning than salt. Luncheon, if possible, should be omitted. The supper should be of coarse barley, well boiled. If a luncheon is found to be necessary, it should consist of a pint of milk, sipped slowly. The Japanese do not use much milk, as cattle are rare in their country. And it is much better to omit any form of luncheon.

The amount of sleep taken has much to do with leanness and obesity. The slender woman who wishes to take on flesh is advised to take nine or ten hours of rest. If she cannot sleep, she can, at least, lie on her back and relax. The obese woman should content herself with no more than six hours of sleep in the twenty-four. In this matter each student should observe her requirements, and should be a law unto herself. There is no hard-and-fast law. For the too-slender woman the maximum amount of rest should be ascertained

by experience; for the obese woman the minimum amount of sleep must be learned.

No slender woman can object with reason to the diet suggested for her, nor is she likely to dislike the idea of taking more sleep. But the obese woman is very likely to protest against the notion of less sleep, she is almost as certain to object to taking a diet of rice and barley. This is the most severe diet, but the most beneficial. If the obese woman can content herself with slower reduction she will be able to vary one of the meals by taking a raw egg beaten up in milk—and without sugar. With the rice she can eat either stewed or fresh fruit —preferably the latter—and with the barley, if the student is unable to do without meat, she can eat very lean flesh that has been well cooked. Beans may be used to advantage, either by the slender or the stout woman.

The exercises that are used for the reduction of obesity are based on tricks of combat. But, when the movements are done slowly, and with a good deal of resistance on the part of the victim, gradual reduction of stoutness will result. In combat work the feats are performed with

the rapidity that may be likened to the stroke of lightning. It is not to be advised, however, that the student attempt serious attack, but that the work be taken slowly and resistantly.

Let the two pupils stand facing each other, each slightly at the other's left. The assailant places her left arm against the front of the victim's legs, just below the crotch. The right arm of the assailant, on the left side of the victim, is placed against the back of the latter's neck, the middle of the forearm touching. With this position taken, the assailant bends her companion forward, the latter resisting. When the victim has been taken as far forward as is possible she rises gradually to erect position, the assailant now resisting the return.

Easier of accomplishment is the next exercise, which is merely the reverse of the other. As before, the contestants stand at each other's left side. Now, the assailant places her left arm, at the victim's left, just under the thighs, and around both legs. At the same time she places her right forearm against the front of her companion's neck. The victim is twisted, or forced, over backward, all the time resisting.

Then the return is made to erect position, the assailant now giving the resistance.

Next, let the students stand at the left of each other, and the amount of distance between them will be indicated by the requirements of the position. The assailant places her left hand on the outside of the right thigh of her victim, and her right hand against the left side of her victim's neck.

When this position has been secured the victim is forced over as far as she can go to her right side. Then the return is made, the assailant now resisting.

There is an amusing form of attack that may be made, but the description that will be offered now is intended, instead, as a resistant exercise. The students confront each other, and the one who makes the attack lets her hands fly out suddenly and clasps them behind the back of the victim's head. Then the aggressor pulls her companion forward on to the latter's knees, or even goes so far as to throw her flat, face downward. When the fall is carried only as far as to throw the victim upon her knees, the latter should try to rise, the assail-

ant resisting. When this work is attempted merely for the purpose of training muscle it should be done slowly, and with rather stubborn resistance on the part of each contestant. There is a hint to be given that this work, when it has to be used in the way of combat, can be employed very profitably against a burglar, or other intruder, by throwing him upon his face, flat, and then falling so as to plant the knee in the small of the victim's back, and employing the throat-grip that has been described in the previous volume. If this be done, and if the throat-grip be applied with sufficient severity, the intruder will be glad of the arrival of the police.

If any of the feats just described are used as tricks of combat it is necessary that a mattress or pad be used, and care must be taken that none of the ligaments of the legs are injured. There is always a possibility of injury when the students are not advanced sufficiently in their work. But, when the work is done slowly and in the resistant way, there is a gradual remedy for obesity, and without danger to limb.

CHAPTER X

OUR OUTDOOR SPORTS FOR WOMEN, AS SEEN FROM THE JAPANESE VIEW-POINT

IT must be accepted as an axiom that there can be no such thing as perfect health unless enough outdoor exercise is taken. The Japanese have many sports in the open air that are unknown in this country, and a description of them is unnecessary. We have our own games for use in fresh air, and many of them will serve any purpose that is to be aimed at. In this chapter the author will discuss American and English games from the view-point of the *jiu-jitsu* instructor.

Of course the commonest form of exercise is walking. Its importance cannot be overestimated. Many women complain that they cannot walk very far without having tired ankles; others complain of aching feet, and still others of pain in the back. A woman who

cannot walk five miles without fatigue may be very certain that she is not a healthy woman, and she should make it her first duty to become one. A ten-mile walk should be an easy performance for a healthy woman, and the strong woman is capable of walking fifteen or twenty miles in a day.

In walking much depends upon the shoe. In the first place, it should give an easy fit, being neither too tight nor too loose. Any woman of ordinary intelligence can tell whether or not a shoe fits her. If she buys a shoe that does not fit it is her own fault that she cannot walk with pleasure.

High heels do much to interfere with the pleasure and the health of walking. Such heels are supposed to give a more stylish form of carriage, but they tilt the body forward to such an extent that their use induces severe trouble in some of the internal organs. It is true that the Japanese woman uses high heels on her shoes, but she uses, at the same time, toe-pieces of equal height. The Japanese shoe has a block of wood at the heel and another at the toes, and thus the foot is left flat, with no

tilting forward. It must be admitted that the Japanese woman, when in the street, shuffles noisily along. In the house, where she does not wear her shoes under any circumstances, she is the personification of grace. She moves about nimbly and prettily, and shows that her seemingly odd form of foot-gear has not really marred her action in walking.

It is not the author's purpose to persuade American and English women to adopt the Japanese shoe, but the best form of shoe for use is that which neither pinches nor is too loose, with broad enough fronts and with very low heels. The fashionable shoe is to be condemned for many reasons. It makes much walking difficult, and it spoils the beauty of the foot. Japanese women are able to exhibit very pretty feet.

Next in importance, in our outdoor recreations, comes rowing. As we practise it, this is a sport unknown in Japan except to men of the navy and to some who serve on merchant steamers. The Japanese harbour and river boat is the *sampan*, which is propelled by a paddle whose shaft is shaped very much like a

scythe. The "oarsman" seizes a pair of handles and propels his boat something as a mower would use the scythe. But rowing should be followed faithfully by all American and English women. After a moment's thought it will be understood how thoroughly this work satisfies the requirements of *jiu-jitsu*. According to the Japanese plan every muscle must be resisted by a pressure in the opposite direction. A very little practice will show how much resistance the pull gives to the arm.

Yet the earnest seeker after strength must be cautioned not to attempt to row with a single oar. Each puller should use two oars, and care must be taken that the left arm is compelled to perform fully as much work as does the right. The best plan is for two persons to row together, each using a pair of oars. Boating work should be kept up assiduously all through the season. The best plan is to row for an hour in the morning before breakfast. The woman who lives near a stream or a lake, and who does not row, has much for which to blame herself.

Golf is one of the best exercises that can be

taken on land. First of all, it makes one walk. In the next place, it requires bendings of the body and demands much arm work. But there is one suggestion to be offered that will make much for strength, and which, at the same time, will increase the striking force. In too many cases a blow is used where the shoulder is thrown back and the hand is not thrown back over the shoulder. In every case where it is practicable it is advisable to make the arm perform a complete revolution. The idea can be caught when the student stands with one hand at the side. Throw it forward, up and over the head, back of the body, and around to starting position. The movement should be a complete swing of the arm around over the head, and the student who follows this will find that many of the strokes employed in golf are delivered more effectively. Both for strength and for expertness it will be found of value to follow out this suggestion.

Tennis, also, is a sport that should be followed. It has fallen into undeserved unpopularity, for the reason that some physicians have contended that the springing and jumping

necessary work harm to some of the internal organs. The only answer to this contention is that, when a woman finds herself unable to play tennis without injury, then it is a certain sign that she has not attended sufficiently to her physical development. The normally healthy woman should be able to endure an hour's practice at tennis at any time. If she is unable to do this, then she should employ all of the exercises described in the foregoing chapters, and should take them up in very gradual succession, doing them moderately and devoting many months to the training.

Work with the "skipping rope" will do much to help very young girls, as well as women who have grown to adult age. I am aware that many physicians object to this form of exercise, and they are right in making such objection. The trouble is that the girl has been allowed to grow without any especial attention being paid to her bodily structure. The boy goes out and engages in wrestling, foot-ball, base-ball, running, rowing, and everything else. The girl is taught to stay at home and to be graceful. One of the greatest

crimes that parents can commit is to persuade a daughter to follow any course that will make her less healthy than her brother. The daughter who is trained properly in physical work will be much more likely to live to old age, and through doing so, and through having the possession of sheer good health, she will double her parents' pleasure in possessing her.

It is a chivalrous thing for a man to insist that his wife or daughter shall not bring up a scuttle of coal from the cellar, and for him to perform all that work himself. But it is a splendid thing for the "head of the family" to persuade his wife and daughter to reach that stage of physical development where they will not mind bringing up *two* scuttles at any time when it is necessary so to do. The woman has cause for shame who is forced to admit that any man of her own size is her physical superior.

Two closing suggestions will be offered on the subject of outdoor sports. When the weather is too inclement either of them may be practised indoors, but in each case the preference is to be given to outdoor work. A Japanese instructor would pronounce basket-

ball to be an exercise of great value, especially if it be carried on in the open air. The value of wrestling can be hardly overestimated, but in this exercise there is some danger of over-zealousness. It is highly advisable to take up wrestling, but one should make sure of having a fully competent instructor. Wrestling gives too much opportunity to break bones or to injure muscles, if the pupil be ignorant of the art and of the principles of anatomy. The new system of wrestling devised by Mr. Bernarr Macfadden, editor of *Physical Culture*, is best suited to the needs of American girls and women who are obliged to take up wrestling as a means of exercise. Many of the feats described in this volume will furnish ideas in the way of safe wrestling.

The girl or woman who wishes to develop her body to its utmost should not fail to take up wrestling, first making sure that she is not doing any work that can injure herself or her antagonist. The Japanese woman who has followed a *jiu-jitsu* course to its end is an expert wrestler, and possesses all the agility, grace, and strength that any woman can desire.

CHAPTER XI

SLEEP AND ITS VALUE

THERE cannot be too much emphasis laid on the importance of sleep at the proper hours. And the Japanese insist upon all the regularity that is possible in the way of retiring and rising hours.

It must be a matter of individual experience as to what hours are best for sleep. A broadside statement may be made that the average Japanese, man or woman, retires at about nine in the evening, and rises at five, or shortly after, in the morning. This would signify that the average amount of rest should be something like eight hours in the twenty-four. If the rest must be had in the daytime the stay in bed should occupy more time, but few women are under the necessity of employment through the night.

If there be insomnia—which is rare in Japan

—the *jiu-jitsu* student is advised to sit up until an hour later than formerly indicating the hour of retiring. In other words, the student must sit up until she is thoroughly tired. Then she may go to bed, and, if necessary, may sleep later in the morning. As a rule, it is much better for insomniacs to arise when it is realised that the tour of rest is finished.

It is difficult to prescribe rules as to rest. In this matter the student must use her own intelligence to a great degree. "Tired nature's sweet restorer, balmy sleep," is a matter that cannot be gauged by a standard. Some women are able to get along comfortably with six hours of rest. Others require anywhere from seven to ten. The thin and nervous woman requires anywhere from eight to ten hours in bed. As a rule she does not get this amount of repose, and suffers as a consequence. Often the stout and phlegmatic woman can do with six hours of rest. She will not content herself with this, and therefore becomes more stout. Food, too, has much to do with stoutness or slimness, as has been explained in a preceding chapter.

From this view-point it will follow that the over-stout woman should not over-indulge herself either in the way of sleep or of diet. The thin and nervous woman should take more sleep, and should keep to an oily diet. For those who cannot sleep when sleep is needed it should be suggested that lying in bed, preferably on the back, brings rest in itself. But the hour of rising should be observed with a very close approach to the idea of regularity. A hint as to the hour for going to bed may be had from the Japanese notion that one should not eat until he is hungry. There is little sense in one's retiring until he is sleepy, although, in cases of exhaustion, it is well to lie down and rest, even though unable to sleep.

The best indications of the proper habits of sleep are to be found in instances of healthy childhood. The child is put to bed soon after dark, and is aroused only when the breakfast hour comes. The child is a healthy sleeper. Cases of insomnia in childhood are rare anywhere. This is because the child is sent to bed at an early hour. Older persons, who have worries and cares, do not sleep as well. While

insomniacs may have to remain up late in order to get final sleep, the habit of retiring early should be cultivated.

For women who are able to sleep at any hour that they retire it cannot be questioned that the best hours for sleep are between nine in the evening and six in the morning. They go to bed tired, and wake up refreshed. An hour's nap in the daytime is often of great benefit.

There is another cause of peaceful sleep that is of great value in the life of the Japanese woman. She never neglects her ordinary social duties, and the necessity for recreation is kept always in mind. Even the poorest woman, who has spent her day at toil in company with her husband and children, goes to the bath at night. She cleanses herself, dresses for the evening, and, after supper, goes out to meet her friends. Whenever he can do so the husband goes with her. In the warmer months of the year meetings between friends often take place in the streets, where, under the dainty glow of the paper lanterns, the scene makes the foreign visitor think of the tales he has read of fairy-land. When two Japanese

women meet compliments are exchanged, and each bows in turn in acknowledgment. In itself, this deep bowing is not a bad form of physical training. As an average meeting with a friend calls for anywhere from twelve to twenty bowings, and as any Japanese woman who goes out for an evening's walk is certain to meet several friends, it can be understood how much exercise the national habit of paying compliments, and of bowing in acknowledgment of each one, has to do with the Japanese physique.

As soon as she has had her short evening of recreation the Japanese woman who does not belong to the official—social—class goes home and retires, well-prepared for rest. In Tokio, at ten o'clock in the evening women are not seen on the streets in great numbers, and at eleven o'clock they are passed but rarely by the tourist who takes a stroll along the length of several blocks. At this hour the Japanese woman almost invariably is at home and in bed, sleeping as sweetly and healthfully as does her child.

CHAPTER XII

THE AGE AT WHICH GIRLS SHOULD BEGIN THE STUDY OF *JIU-JITSU*

THE question suggested by the heading of this chapter is a vital one for the consideration of a mother who has a daughter. The answer to the question is simple enough: The training in *jiu-jitsu* should begin just as soon as the little girl is old enough to receive instruction intelligently. Where it is possible it is highly essential that she have an opponent of nearly her own size.

Physical training should begin at birth. In Japan it does, when the parents are wise. The tiny baby may be started in at once with massage after the morning bath. As the child becomes older the massage should be increased somewhat in severity. At, or before, the age of one year, it should be possible to swing the child by one ankle, and to lift by a grip under

either shoulder. The mother who is at all anxious on this subject will be surprised at finding out how much the healthy child enjoys the exertion.

When a sufficiently strong grip is employed on the ankle bone the leg may be twisted over, gently, first outward and then inward. Of course a year-old child will not know enough to resist, but the resistance will develop after a little. Much depends upon the amount of pressure exerted on this twist of the leg, but a careful mother, who remembers the rule of "moderation," will make no mistake. The arms may be treated in the same manner.

The sickly babe must be handled with more carefulness and gentleness than is necessary with the healthy one; but the very fact that a child is sickly shows the necessity for the employment of physical training. There should never be any hesitation about the use of physical training for a sickly child. The very condition of weakliness indicates the vital need of exercise, increasing very gradually in severity as gain in strength and in general condition is noted.

Whether sickly or healthy, in clement weather, the child should be out-of-doors as much as is possible. The matter of clothing depends upon the constitution of the child. It may be warm or light, according to the child and to the weather; but, even when the weather is cold and the clothing somewhat heavy, care should be taken that the garments are so made and put on that there is always free circulation of air over the body. Thick "bundling" is even more injurious to the bodily condition of a child than it is to the reasonably healthy adult.

Many mothers attempt to curb the frequent desire of a child for a drink of water. It is hard to imagine how a greater crime against health can be committed. The healthy body craves water. A strong child, with a natural stomach, will know just when she wants water, and she should have it always when she calls for it, and in any quantity in which she needs it. It is not necessary—or even best—that a child should have iced water, merely because she prefers it in that form, but it should be always cool. In summer a simple way of

keeping the water just cool enough is to bottle some and put it away in the ice-box. The bottles do not need to come into exact contact with the ice, and thus the water will be cool without being ice-cold.

At what age should girls take up the *jiu-jitsu* exercises described in this book? My suggestion would be that some girls begin at the age of four, and others at the age of five. In other words, much depends upon the constitution of the child, and upon her ability to comprehend the instruction. Very seldom is a little girl without a chum of her own age and size. The mothers should act as instructors, and the fathers should sit by as good-natured referees. It is worth the while of both parents to devote the time that is needed for the building up of the bodily strength of their child.

At the beginning of the training of a baby girl it is better that not more than ten minutes be spent in a single bout, but there should be two of these bouts each day. All of the exercises described in these chapters should be taken up in order, one at a time, and with no attempt at haste. With a child of four or five

the first six exercises will be found enough for use during the first six months of the training. The practice bout may be extended in length, very gradually, until the girl of twelve who began her study of *jïu-jïtsu* at the age of five should be the physical superior of any girl of sixteen who has never attempted the work. It would be a matter of ease to find twelve-year-old Japanese girls who would be capable of throwing a sixteen-year-old American girl over the head.

Any form of outdoor play that does not involve serious danger of accident should be encouraged. The child who is kept indoors in clement weather will never grow up with the fullest amount of strength. If the child is inclined to mope within walls she should be driven out-of-doors. For a child there is no way in which health may be gained as quickly as by romping out-of-doors in the fresh air.

In closing, this suggestion will be offered: A child of fourteen should be the physical superior, after *jïu-jïtsu* training from the age of five, of her adult sister as we see her to-day. A girl of sixteen, after eleven years of training,

should be capable of taking creditable part in any revival of the Olympian games.

Until, however, one is strong enough to stand great exertion one should pay strict attention to the final warning:

GREAT MODERATION IN ALL EXERCISES!

THE END

Printed by MORRISON & GIBB LIMITED, *Edinburgh*