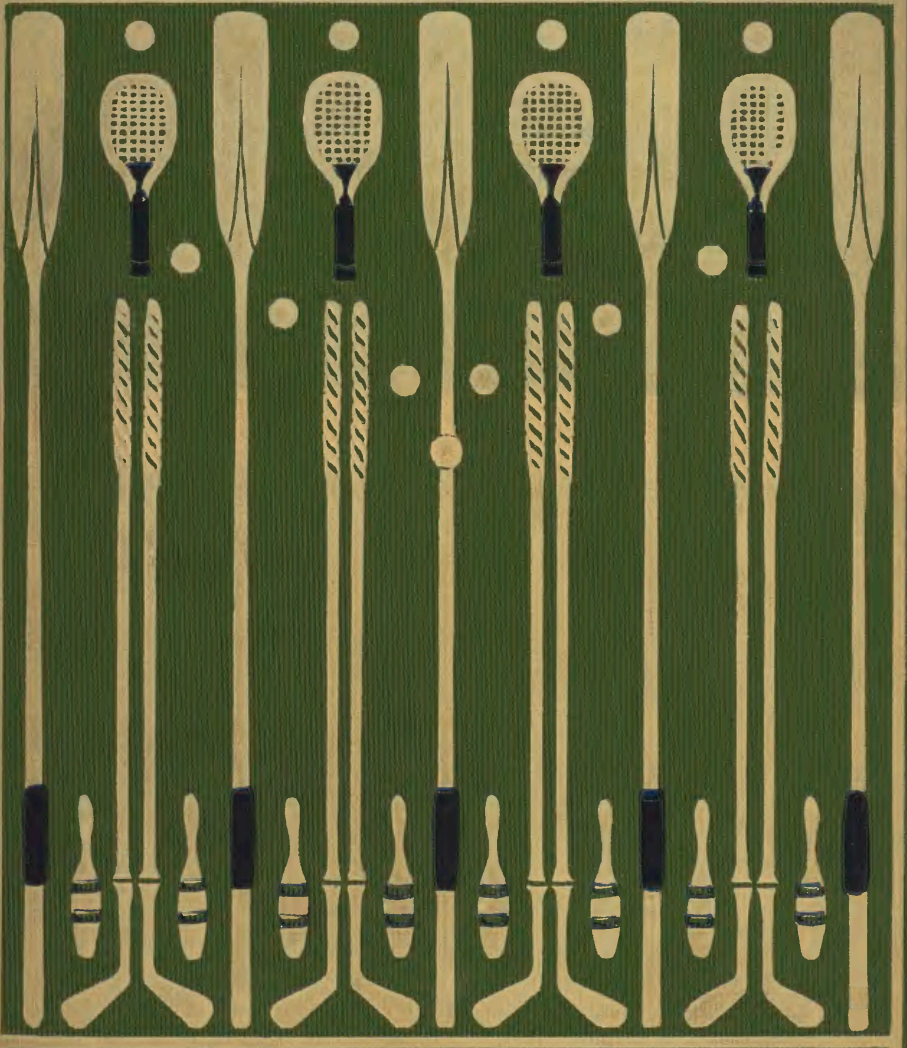
ATHLETICS & OUT-DOOR SPORTS FOR WOMEN



Edited by LUCILLE E. HILL

ATHLETICS AND OUT-DOOR SPORTS FOR WOMEN


The MMCo.

ATHLETICS AND OUT-DOOR SPORTS FOR WOMEN

EACH SUBJECT BEING SEPARATELY TREATED BY A SPECIAL WRITER

WITH AN INTRODUCTION BY

LUCILLE EATON HILL
DIRECTOR OF PHYSICAL TRAINING IN WELLESLEY COLLEGE

WITH OVER TWO HUNDRED ILLUSTRATIONS

New York
THE MACMILLAN COMPANY
LONDON: MACMILLAN & CO., LTD.
1903

Set up and electrotyped April, 1903.

Norwood Press
J. S. Cushing & Co. — Berwick & Smith Co.
Norwood, Mass., U.S.A.

CONTENTS

CHAPTER VII

CHAPTER VIII

CHAPTER IX

CHAPTER X

CHAPTER XI

CHAPTER XII

CHAPTER XIII

CHAPTER XIV

CHAPTER XV

CHAPTER XVI

ILLUSTRATIONS

CHAPTER I

Physical Training at Home

CHAPTER II

Gymnasium Work

CHAPTER III

Dancing: Æsthetic and Social

CHAPTER IV

CHAPTER V

Swimming

CHAPTER VI

Skating

CHAPTER VII

Rowing

CHAPTER VIII

Golf

CHAPTER IX

No Illustrations.

CHAPTER X

Lawn Tennis

CHAPTER XI

Field Hockey

CHAPTER XII

Basket-ball

CHAPTER XIII

Equestrianism

CHAPTER XIV

Fencing

CHAPTER XV

Bowling

CHAPTER XVI

Track Athletics

INTRODUCTION

By LUCILLE EATON HILL

INTRODUCTION

"TRULY, an embarrassment of riches," an enthusiast in physical exercise will delightedly say while turning over the pages of this proof of women's interest in health, strength, and beauty.

Not until one's attention is thus directly attracted to the variety of gymnastic exercises, sports, and pastimes now enjoyed by women, does one realize how much has been done in a very few years to interest us in physical activity as a curative agent and a recreation.

And the list could be even longer with all honor to the pioneer services of the bicycle. Hand-ball, squash, racquets, lacrosse, and cricket have their devotees, and fisherwomen, campers, canoeists, and gardeners believe the most attractive forms of activity in the open have been omitted.

How contagious, too, is the enthusiasm of each writer for his or her favorite sport, making the novice long to taste the joys of all in one day!

This awakening of girls to the delights of athletics, together with an aroused intelligence in the

desirability of possessing a strong and beautiful body for both use and ornament, makes imperative a corresponding knowledge of the practical laws of health and the relation of proper food, sleep, bathing, and clothing, as well as exercise, to the welfare of the body. Otherwise, through ignorance and lack of self-direction and control, a great power for good will become a source of evil.

Our ever present ideal should be Health and Beauty; and during this early stage of our experience in athletics our watchword should be "Moderation." Already we have shown our incompetence in self-control and judgment by meriting the following statement in one of the papers in this book: "If the advocates of athletics for women are ardent, their *opponents are equally strenuous*. Their chief objections are based very naturally on health considerations. They say, with reason, that all instructors are not wise and that most girls are over-zealous. Few women can work or play moderately, and if they once become absorbed in athletics, they will be prone, in their excitement, to go beyond their strength and do themselves lasting harm."

The only possible way in which we can change our strenuous opponents to ardent advocates is to conduct our athletics, both social and organized, on

such a high plane of intelligence and control that there can be no ground for this disfavor. We hear constantly of the "*abuse* of men's athletics"; we should hear nothing but the "*use* of women's athletics."

It is always a pity to see a good thing so misused or overused that the majority of people lose sight of its true mission and recognize its superficial popularity only.

As a means to an end, the value of athletics is as great — and greater — for women as for men; but while we enthusiastically seek the health and recreation which comes with natural play, we must avoid the evils which are so apparent to thoughtful people in the conduct of athletics for men.

Women should be exponents of the "New Athletics," whose platform is largely ideal at present, but with unity of effort it can be made very real.

And the first plank is this, — Underneath the gayety of physical activity we must acknowledge that *Health of Body and Mind* is the moving and governing principle.

And the second is this, — That all associated efforts must secure the greatest good to the greatest number; not the greatest good to the smallest number, which is one of the evils of the "Old Athletics."

And the third is this, — That competition in organized athletic sports is desirable so far as it strengthens the first two planks of the platform.

Dean Briggs said in his Commencement address to a graduating class at Wellesley College: "The girl of to-day has more independent manners, and, happily, has along with them a freer life. She may ride a horse without an accompanying groom; she may bestride a horse; she may row and run and swim and take part in a hundred athletic exercises without being one whit less a woman," — he forgot to add, but a great deal more of a woman, — "but some things she had better leave to men. Fiercely competitive athletics have their dangers for men, but they develop manly strength. For women their dangers are greater, and the qualities they tend to develop are not womanly." There are many people having the interests of women's athletics deeply at heart who are anxiously watching the signs of the times and asking each other, "The Lady or the Tiger?"

Women, engaging in some form of athletics for one reason or another, can be roughly divided into five big classes, exclusive of the large number in normal schools of physical training.

First, women of leisure who make golf, riding, skating, and other sports fashionable pastimes,

and a means of gaining physical beauty and sound health. Second, business and professional women, who tramp, skate, and use gymnasia in the winter, and their vacations on hill farms or by the sea in the summer, with the serious object of keeping themselves in condition for their daily work.

Third, women who are — or think themselves — more or less out of sorts from neglect of the laws of hygiene, and whose physicians prescribe some form of exercise as a remedial agent.

Fourth, young girls in secondary schools, both public and private; and fifth, the great class of college girls.

Now we are all, in different ways, responsible for the good or ill repute of athletics for women, and it behooves us to work together in our various classes to win public and private respect and confidence in our management. We are in honor bound to do this unselfishly and seriously.

I am sure we all agree that as yet most of us are too untrained in stability of purpose and in keeping up a sufficiently sustained interest in any special form of exercise to attain a high degree of strength or skill. We are quickly enthusiastic and as quickly discouraged. When we become accustomed to regularity of daily muscular activity, as

we are accustomed to taking food and sleep regularly, an invaluable habit will be formed.

The first thing to be considered by a woman whose physical condition does not demand a prescribed exercise, is the selection of some form of physical activity which will bring her keen enjoyment and mental stimulus. The element of joyousness is strong for health. For this reason a game is desirable for many women who find it difficult to change the trend of serious thought without a strong "counter-irritant."

Dancing, under favorable conditions, — as an athletic costume, abundance of cool fresh air, day or early evening hours, and gay music, — need fear no indoor rival as a source of physical and mental refreshment.

It is a thousand pities that woman's good comrade, the bicycle, has felt our fickleness. Its extensive banishment has sadly decreased life in the open for great numbers of women who have not the strength of wish or will to defy fashion for the sake of a partially developed conviction. Golf, the aristocrat, cannot fill the place of the bicycle, the democrat.

Most of us are so situated that much freedom of choice of a physical recreation is denied us, for as yet comparatively few towns have links, and

rinks, and gymnasia, swimming, riding, and fencing schools, bowling alleys, athletic fields, tennis courts, playgrounds, and playsheds for women. Perhaps sometime the city fathers will realize that the city mothers must be strong, and provide more extensive means for physical, as well as mental, education.

But no woman can beg off from a splendid, daily athletic exercise because the above attractions are unavailable, unless she is destitute of shoes and a short skirt. Cross-country tramping — not just "taking a walk" — for an hour or more, the body well set up, the heart and lungs working hard, is a glorious, health-giving exercise, and all the finer if one has the sympathetic companionship of a dog or some other jolly friend.

It seems to me that the first class of athletic women mentioned, with plenty of money or leisure or both, may have to watch out that they do not exaggerate the importance of athletics and, by drawing an excess of public attention to themselves, spread abroad the false impression that women are becoming "sporty" as a type, whereas it is well-nigh impossible to induce the average woman to walk a few miles a day in all kinds of weather. With abundance of time at their disposal in which to "train," they have a fine oppor-

tunity to prove the value of right living as a means of gaining physical beauty and health.

The second class, of very busy women, perhaps, forget that rest and nourishing food, with exercise in the open air, are of prime importance, supplemented by gymnasium exercise. Women whose nerves are under constant tension, and whose brains are very active, need a variety of physical recreations, bringing with them gayety and relaxation. Business and professional women should have big, airy club buildings for dancing, tennis, hand-ball, squash, rackets, basket-ball, bowling, fencing, and swimming. How delightful it would be if every large town and city had great wooden structures which could be made semi-outdoors by drawing back or pulling up shutters, in which nerve-tired women could play!

The third class, of women who are endeavoring to regain their health through some prescribed form of exercise, diet, bathing, and rest, can easily become discouraged and not persist in the new régime long or regularly enough to prove the efficacy of the training.

But most women in the foregoing classes are practically engaging in unorganized athletics and are subject to no recognized control in training beyond technical instruction, therefore the respon-

sibility lies entirely with the individual to achieve good results from the exercise through the exertion of her intelligence and self-control.

The greatest menace to the good repute of athletics for women is at present found in the secondary schools, and it is so striking that promoters of the cause of health for women have grave reason for anxiety.

Doubtless, we can truthfully quote that "all instructors are not wise" and that a great deal of the trouble comes from "over-zealousness," ignorance, and thoughtlessness on the part of the young pupils, who should be strictly disciplined and trained. But I believe the greatest responsibility lies with the school authorities who permit young girls to engage in games of the athletic grade without *any* recognized examiner or competent instructor.

The "play instinct" is so keen in all healthy young animals, that a girl's active or latent interest in games suited to her age and strength should be encouraged and developed.

It is of special importance that direction and instruction should be given at the age when childish play is outgrown and the need of more difficult and vigorous games is apparent, the period extending to the age of the college freshman.

We believe the college girl has a right to expect guidance and instruction in the recreative branches of physical training, — the sports, — as in the gymnastic courses. How much more does the younger, less-experienced girl need competent supervision!

The initiative in the introduction of games should be taken by the school authorities, not by the pupils, as a part of the scheme of education; a playground, and, if possible, a playshed for use in bad weather provided, and an instructor of games appointed. Where this cannot be done, games of the severity of hockey and basket-ball should not be permitted to exist as school organizations, and inter-scholastic matches should be prohibited. Where the conditions are favorable for the development of school games, matches between class teams in the school will insure a larger number of entries in the sport and less danger from over-excitement than inter-scholastic matches, where a school furnishes but one team and more intense nervous strain accompanies the keener competition.

The conduct of athletics in women's colleges will naturally be criticised to our advantage or disadvantage, by persons who believe physical training to be a part of a girl's education, and we should take so firm a stand for the highest ideal and direct the development of the subject

so wisely that our example can be followed with confidence.

This youthful work will require, for some time yet, more or less experimental administration in the various colleges, but we labor with a common end in view, and athletics are a means only to that end.

College women are beginning to recognize the true relation of the body and mind and to value physical training as an aid to the best intellectual activity. There is also an increasing appreciation of physical beauty to be found in abounding health, grace of motion, and dignity of bearing.

Women should also recognize the need of perfect organization in all parts calling for teams, crews, or champions. The ethical value of "athletics for women" may be placed side by side with the physical value. The necessary submission to strict discipline, the unquestioning obedience demanded by the officers, the perfect control of the temper and sensitiveness under coaching, together with the fact that she must be absolutely unselfish in order to become a loyal and valued member of her organization, develops a young girl's character while she develops her muscles.

The word "training" as applied to the extreme care of the body preceding an event requiring a

high degree of physical and nervous effort, has not the man's interpretation in the woman's college. We believe that "training" is simple, practical "right living." That the "training" need never be so extreme as to make it desirable to "break training." The interest in an organized sport is a legitimate and effective cat's-paw in establishing hygienic habits of living, and we hope that the common sense and improved health of the girl will encourage her to continue in her abstinence from sweets, her eight hours — or more — of sleep, her cold-water baths, and her daily exercise in the open air.

Too despotic, mechanical "training" should be discouraged, as an appreciation of the intrinsic value of right living must be acknowledged by the individual if permanent benefit is to be gained.

The "event" for which women should train is a long and happy life of usefulness — with no "nerves."

The influence which we are all consciously, or unconsciously, exerting over athletics is inevitably placing the subject on a permanently high or low plane of development.

Those who believe physical training in all its branches to be a vital part of the scheme of edu-

cation will treat it with the dignity such a position demands.

Those who look upon athletics as a fad or pastime only, will take no serious interest in its growth or decline.

I believe, too, that unnecessary publicity tends to cheapen the efforts of an individual and an organization; therefore those of us who labor for the success of physical training as a powerful health factor in the lives of American women, will esteem reserve as womanly and notoriety as unwomanly.

LUCILLE EATON HILL,
Director of Physical Training, Wellesley College.

PHYSICAL TRAINING AT HOME

By ANTHONY BARKER

ATHLETICS AND OUTDOOR SPORTS FOR WOMEN

CHAPTER I

PHYSICAL TRAINING AT HOME

THE subject of physical training is attracting more general attention at the present time than ever before. Men and women are beginning to see that through it not only is the power for work and, therefore, for earning money increased, sickness avoided, and life lengthened by exercise, but that physical development and strength are to be desired for their own sakes.

Fig. 1.

Fig. 2.

It is impossible to cultivate the body without benefiting the mind, and the mind cannot be cultivated to the best advantage without caring for

and strengthening the physical make-up. College students who excel in athletics usually stand well in their classes; professional athletes, too, though not always possessing refinement, are usually characterized by good reasoning power, memory, and general activity of mind. The psychological effect of bodily training is not only mental but moral. Phillips Brooks said, "The duty of physical health and the duty of spiritual purity and loftiness are not two duties; they are two parts of one duty, which is the living of the completest life it is possible for man to live."

Fig. 3.

The introduction of outdoor games, like tennis and golf, the mastery of which is within the physical capability of women, has called attention to the fact that women as well as men are benefited by scientific exercise. Owing to the restrictions that custom still places upon women, there is a lower standard of physical development and a far greater need for scientific exercise among them than among men.

There should be no marked physical inferiority on the part of women. In many lower animals

the female is larger, stronger, and swifter than the male. Human beings, too, are born equal in strength. Up to the age of thirteen or fourteen years girls average as large and strong as boys. In ancient times Greek girls were true athletes, often excelling men in fleetness of foot and sometimes even in the feats of strength. So we know that women can by proper training make themselves equal to men of the same weight in physical strength and skill, and this without losing their femininity or becoming abnormal in any way.

Fig. 4.

While women are benefited in much the same way and by the same exercises as men, there are certain essential differences between the sexes which must be considered in order to attain the highest degree of physical and mental development. The greatest differences between men and women, after all, are not physical, but mental — not in the conformation of the body simply, but in temperament, nervous pitch, emotional development, and general method of

thought — and these must be kept in mind by the physical educator who would produce the best results with women.

Exercises are spoken of technically as objective and subjective. Objective exercises are those in which the immediate purpose is to accomplish a definite action, as in the case of competitive games, gymnastic feats, etc. By subjective is meant exercises in which the sole purpose is the development of some certain muscle or set of muscles, as in dumb-bell movements, calisthenics, etc. Objective exercises are of far greater scope and value in that they affect and train the mind as well as the body. By them coördination, or the working together of mind and body, is attained. Coördination is another word for skill — and without skill strength is almost valueless. In acquiring a physical education, however, a certain amount of drudgery must be gone through. There is no royal road to physical perfection any more than to learning. A student cannot expect to engage successfully in the lines of higher scholarship unless he has strengthened his mind with a common school education. Just so one

Fig. 5.

cannot attain to the most complete physical education without having laid a foundation of sheer bodily strength by muscle-building or subjective exercises.

By a fine physical education is meant entire control of a strong and adaptable body. To illustrate, there are before the public to-day two jugglers who may be regarded as the most highly educated men, physically, in the world. Their power of coördination is such that an awkward or ineffective movement is impossible for them. Either one of them can exert the strength of a Hercules, lifting thousands of pounds, and immediately after, perform tricks requiring almost inconceivable deftness, such as balancing two billiard balls, one on the other and both on the end of a stick. One of these men lately attempted a game of tennis with a friend, it being the first time he had ever held a racket in his hand. With his perfectly trained eye and mind and muscles it took him only a few minutes to acquire the form of a veteran player, a little inferiority in the generalship of the game being the only point that distinguished him as a beginner; and, still more

Fig. 6.

remarkable, he could play with his left hand as well as his right. Of course, we cannot all hope to be like these men, any more than we can all be mental giants like Huxley or Spencer. It is safe to say, however, that the majority of women can more than double their physical strength, prolong their lives, and enhance their beauty by proper physical exercise, thereby not only increasing their own enjoyment of life but handing down to the next generation a legacy of health and strength more valuable than wealth.

Fig. 7.

Most women, when compared with the classical standard of the perfect female form, as the Venus of Milo, are found to be too large around the hips and too small around the waist, chest, shoulders, and arms. Exercises for these parts are absolutely necessary for symmetrical development. Symmetry is beauty. It is well to state here that women can never develop bunchy, knotted, or corded muscles such as stand out on the arms and shoulders of men who do heavy work. Even

women who from childhood have been trained as professional gymnasts are smooth and round in contour.

The position of the body in sitting, standing, and walking is of the utmost importance. If women could realize the effect of a slight change in position in their appearance, they would exert themselves to attain a correct and graceful position. Incorrect and correct standing positions are shown in Figures 1 and 2. See how graceful one is, — how ungraceful the other. Practise this proper position before a full-length mirror, when available, and in every style of dress. If the correct position is assumed constantly it will soon come involuntarily Pay no attention to the wrinkling of your dress; it is better to alter the dress than to allow yourself to stand so ungracefully and unhygienically.

Fig. 8.

EXERCISES

Exercise I. — Stand erect with elbows at sides and hands to the front, palms up, fists clenched, and thumbs turned out; bend the elbows alter-

nately, raising first the right fist, then the left, to the level of the shoulder and letting it down again. Keep the elbows against the body throughout the movement. This exercise develops the important muscle which forms the beauty line of the front of the upper arm. All these exercises will do much to reduce the flesh locally and restore the graceful lines of a perfect figure.

Fig. 9.

Exercise II. — Hold the hands straight out to the sides, at level of shoulders, palms up, thumbs to the rear, chest thrown out, and chin drawn in. Bend both elbows at once, bringing the hands in until they rest on the shoulders; then straighten the arms to the original position. Keep the elbow at the height of the shoulder throughout the movement. This is further to develop the muscle of the front arm, and also to give the shoulders a more graceful and rounded outline, and to expand the chest.

Exercise III. — Hold the hands at arm's length in front, touching each other at height of shoulders (Figure 3). Swing them both back strongly

on a level with the shoulders, keeping the elbows straight. As they swing back expand the chest and draw in the chin (Figure 4). This is a particularly good exercise for flat-chested women with prominent collar-bones. Women who are too fleshy should perform this exercise very fast and hard until quite tired.

Exercise IV. — Stand erect with the hands clasped above the head, arms straight (Figure 5). Bend as far backward as you can, then as far forward as possible (Figure 6). Keep the arms straight and not carried past the head in forward movement.

Exercise V. — Stand erect, with the arms in the position shown in Figure 7. Now bring the arms under the breasts to cross, as in Figure 8. Try to cross the elbows, keeping the arms straight but relaxed. Hold the position for a second, then relax entirely. Repeat until tired.

Fig. 10.

Exercise VI. — Stand erect, with the feet well apart and fists clenched at the breasts. Step to the right with the right foot, at the same time twisting the body to the right and striking out in the same

direction with the left fist (Figure 9). Next do the same with the left foot, striking out with the right fist. This exercise takes in nearly every muscle of the body and is a great strengthener of the heart and lungs. Thin people should do this a few times only and slowly. Done fast and long, it will be found one of the best for reducing flesh.

Fig. 11.

Exercise VII. — Stand as in Exercise VI. Raise the fists alternately straight above the head with considerable force (Figure 10). This is very effective in strengthening the shoulders and arms.

Exercise VIII. — Stand with hands on the hips. Raise the right knee with the foot hanging down until the knee bumps against the chest; bend forward a little to meet it (Figure 11). Repeat with the left. This is one of several exercises to give better form about the hips.

Exercise IX. — Stand as for Exercise VIII. and kick straight to the side, first with the right foot and then with the left. Keep the knee straight and raise the foot to the level of the hip. Be careful not to twist to the side toward which you kick.

Exercise X. — Stand as for Exercise VIII. and kick backward, first with one foot and then with the other. Bend the knee in this one, also throw the head back and bend the back. Try to kick the back of your head.

Exercise XI. — Lie on back in position illustrated at Figure 12. Raise right leg, straight but relaxed, as high as possible (Figure 13). Make an extra effort to draw knee nearer the breast. Hold a second, relax and alternate with left.

Exercise XII. — Lie on the back, and give the hands a little swing or throw toward the feet, reaching as if to place the hands on the knees; at the same time come up to a sitting position (Figure 14). Keep the knees straight and the heels on the floor throughout the exercise. This exercise is for the abdominal muscles, which are usually very weak in women, giving rise to all sorts of displacements and strain of the internal organs.

Fig. 12.

Exercise XIII. — Lie on the chest (Figure 15), push up from the floor until the arms are straight, keeping the body and knees straight (Figure 16). This exercise is very difficult and should be

regarded rather as a test of strength for certain muscles than as an exercise to be done every day.

Exercise XIV. — Lie on the back and raise the head until you can see your toes. When the muscles of the front of the neck become tired, turn over and lie on the chest, supporting the weight on the elbows. Lower and raise the head until the back of the neck becomes tired. This exercise will not make one "bull-necked." If the neck is small and thin, it will grow round and full. This exercise will reduce the size of a fat neck and do away with a double chin. In some cases it will produce headache and dizziness. One must simply rest when this comes on and try again later. In the end the exercise will cure a tendency to headache, as a well-developed neck gives the brain a freer blood supply. Brain workers should favor this exercise.

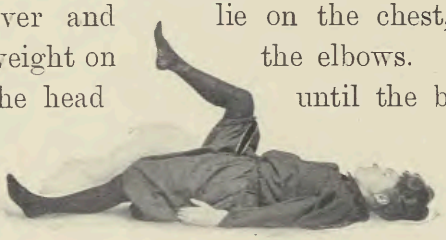


Fig. 13.

The foregoing movements are representative subjective, or body-building, exercises. There are thousands of others, many of them very valuable. These, however, will be found to cover all parts of the body, and in most cases will be enough to lay a

good foundation of muscular strength. Considerable lameness will result sometimes, but it will always get well of itself in a day or two. One should stop exercising until over lameness, and if this is very severe, should stop eating meat until it has disappeared. The lameness is a sign that the muscles are beginning to grow. If you do not get lame, you are not doing enough.

In regard to reducing or increasing weight, exercise is like a good rule: it works both ways. The general rule is, work hard and fast and long to reduce weight. Dress warmly while exercising, eat little, and do not sleep too much. To increase it, do the opposite in everything, except that you must do enough of the slow exercise to feel tired.

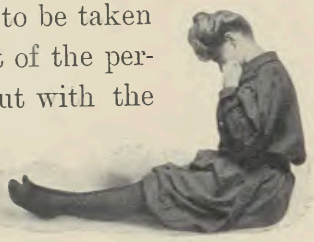


Fig. 14.

The amount of exercise to be taken is best left to the judgment of the person doing the exercises, but with the caution — be sure to do enough. You can stand more than you think. Most of the talk about overdoing is to please lazy people. The danger is very slight, especially with young, healthy women. Work until you are quite tired. Work regularly. It is well to get in the habit of counting the number of times you do

each exercise, and then increase it by two or three from week to week. As regards the time of day, two hours after any meal will do.

The question of corset wearing has been much discussed. Scarcely any woman can be found to-day who believes that tight corsets are conducive to health. If the corset is really loose, little can be said against wearing it, except that it is unnecessary. But most women are apt to think their corsets are loose when they are not.

Fig. 15.

Many women, who are too sensible to lace tightly, wear the corset for the support which it gives. This is because the muscles and tissues of the front of the body are weak from lack of exercise. Give a healthy boy a pair of crutches and induce him to use them, and in a few years his legs will be so weak that if he leaves his crutches at home sometimes, he suffers pain in the weak muscles. If any woman will practise the exercises described in this article, she may continue to wear a corset so long as she wears it loose. She will soon give it up, for its support will not be needed. She will have as a result of the exercise a corset of her own beneath the skin,

a corset of strong and elastic muscular tissues, much better than steel and whalebone. If the boy who needlessly used the crutches devoted an hour each day to running and leaping, he could use the crutches the rest of the time without much injury.

A word about bathing. Never use hot water. Make the bath short, cool, and frequent. Determine by experiment whether you can stand cold water. If you feel invigorated by cold water, use it; if not, use tepid water, but never hot. One should bathe twice a day at least for mere cleanliness. The morning bath may consist of squeezing a large sponge filled with cold water once on the upper part of the chest and once on the back of the neck while standing in a tub. Then rub vigorously with a coarse towel. After exercising, another bath should be taken. However, do not neglect the exercise if you cannot take the bath. It is better to exercise and go without the bath than to bathe and not exercise.

Fig. 16.

The course of training so far outlined is designed simply to build up bodily health and strength in

preparation for more advanced educative exercises. After three months of training, as described, the pupil will be in a position to take up work requiring mental action, such as easy gymnastics, club swinging, fancy dancing, etc. At the same time, outdoor work, too, must not be neglected. Women should run more; a great many women now can walk very well, but the running gait is almost as strange and awkward to them as bicycle riding is to a beginner.

GYMNASIUM WORK

By WATSON L. SAVAGE

Fig. 17. — Wand and dumb-bell drill.

CHAPTER II

GYMNASIUM WORK

The time has not been long, unless we go back to the classical age, since men first began to think seriously about their health or even found it necessary to give much attention to the care of their bodies. People were simple in their tastes and vigorous in their mode of life; every individual of the masses, man or woman, was toughened by work in the fields and active duties about the house. There were no extensive manufactories to pollute the atmosphere; the disease germs did not often find favorable conditions in which to multiply; the disposition of sewage and contamination of the water supply by germs from the body called for little attention; in short, the conditions of city life as they exist to-day were not present.

But what a host of changes, not alone in sanitation but in social condition, followed the massing of the population in cities! Under their protection womankind has risen from the humble place which she occupied to a position of equal impor-

tance with man; she has been freed from former bonds, entered houses of business and halls of learning, while her activity in the affairs of the world has been felt in every grade of society. How has she gained in vigor and physical power to resist disease and cure disordered conditions?

Fig. 18. — Rowing, sliding seat. All around exercise.

We must all agree that exercise for its own sake should be taken regularly if we are to enjoy the best health, perform our natural duties with the greatest ease, feel the pleasure of life, and fill out our measure of years. I can almost hear some one suggest that if I held her position for a week, I

would be glad enough to rest after a day's work. That seems true; but, curiously enough, exercise of the body, such as I suggest, actually rests the weary parts and at the same time stores up reserve power that will after a time enable her to go through her duties without great fatigue. Almost all who have

Fig. 19. — Mass exercise. Abdominal series.

tried physical exercise admit the benefits and exhilaration that follow.

The illustration on page 36 shows a portion of a class of two hundred women who are employed at sedentary occupations during the day. None of them is really sickly, but many are advised by their physicians to take exercise, so that few are there for mere entertainment or would be willing to give two evenings a week for such

amusement. All of them have some definite object in exercising: many wish to get thin, and others fat; one is dyspeptic, and another nervous; one is unable to sleep, and another is always tired; backaches, headaches, shallow chests, crooked spines — in fact, all sorts of human ills and afflictions lead them to seek the aid of exercise. The most interesting fact is that to some extent they accomplish their objects with very much the same exercise, even though their conditions seem so different. The simplest explanation is that their complaints are due to unnatural and abnormal conditions, and exercise tends to produce the normal. Far-seeing business men are providing similar facilities for their employees and are convinced that the improved and more energetic service covers the expense.

Fig. 20. — Nautical wheel. Lateral trunk exercise

The state of health determines the broad lines upon which exercise should be given; that is, *generally* by mass drills, or *individually* so as to direct each movement for specific needs, to localize the

action as far as advantageous, and regulate the quantity so as to give frequent intervals for rest and relaxation. In class exercise the series should be sufficiently varied to bring all parts of the body into healthful activity so as to open the pores of the skin, force impurities to the surface, expand the lungs, cause deep breathing to stimulate the heart action, massage or squeeze the liver, change frequently the position of the viscera, thereby stimulating the flow of blood to all parts, and increase peristaltic action so that digestion and disposal of the waste products are hastened in a marked degree. The effect of these changes is to draw the blood from the brain and from the parts where it has been congested during the day, and furnish them with a richer supply of oxygen and nutritive matter.

Fig. 21. Rope climbing.

The difference in sexes calls for a division of class work, as the handling of the two in a large group is a difficult problem. Women are ambitious to equal the feats of the men, although very much handicapped by physical construction. Men are broader at the shoulders than at the hips, while

the reverse is true of women. The waist in woman is not only smaller, but habits of dress have so obstructed motion and interfered with the circulation and nutrition of the waist muscles that they have become practically atrophied. So in heavy gymnastics, where the weight of the body is supported by the hands and the lower extremities must be raised by the waist muscles, women have a greater disadvantage than men in their leverage with smaller, weaker muscles, smaller chests, smaller waists, and the weight further from the base of support. On the other hand, graceful movements with the feet as the base of support are more natural to women than to men, and therefore they excel in such exercises.

Fig. 22. — Thigh and abdominal exercise.

In spite of these facts, the most important part of a woman's development is at the waist; and for this reason, again, the gymnasium is the best place for exercise, as here the proper appliances and conditions are found. The woman is then suitably

dressed and able to have the feet higher than the head, as on the rings (Figure 29) or on the ladders or stall bars (Figure 24) or in many other gymnastic exercises. Such positions are most beneficial for exercising the internal organs, stimulating peristalsis, emptying by gravity the ofttimes congested pelvis, which is a common cause of many of the aches and pains to which women are subject, and especially of constipation.

It would require a book to show exercises on all the machines in a well-ordered gymnasium, and the photographs here reproduced can give only suggestions of single movements on some of the apparatus. The illustration at the head of this article shows how one hundred students may exercise at one time in a room fifty by eighty feet without floor obstruction. It represents a combination dumb-bell and wand drill in which there is much trunk bending, and arm and leg exercise, performed with musical accompaniment. The size of the class and the music are inspiriting and make ordinarily uninteresting movements seem playful.

Figure 19 shows the positions assumed by the members of a class to take the very valuable abdominal exercise. One row of women holds down the feet of those who perform the exercise, which consists of raising and lowering the trunk from a

horizontal to a sitting position. They take their turn in holding down the feet of the opposite line and meantime practise full and deep breathing. A variety of this exercise is raising the feet to a perpendicular over the body and lowering them again slowly. Dancing steps in class formation may follow for ten minutes, and then heavy gymnastics, as shown on this and the next page, where the body becomes the weight to be moved and lifted. For such exercise many other kinds of apparatus

Fig. 23. — Swedish plinth and chest machine combined.

are brought into use, such as climbing rope, horizontal ladder, parallel bars, horizontal bar, buck, Swedish boom, flying Dutchman, etc. To avoid too much waiting for turn, the class is divided into squads of from ten to twenty, with a leader to set the exercise. While still separated in squads, the

class may then form in circles or lines for one of the many gymnastic games. For those who are strong enough to take a full hour of continuous exercise, the work would be outlined somewhat as follows: Formation, marching, and a short, slow run, five minutes; light calisthenic drill while standing, ten minutes; abdominal drill in sitting position, five minutes; dancing drill, ten minutes; squad work on heavy apparatus, fifteen minutes; games for ten minutes, and breathing exercises for the remaining five minutes.

Fig. 24. — Stall bars. Inverted suspension, calling gravity into use to empty the pelvis.

All machines rust out faster than they wear out. Exercise of this sort, for an hour twice or even

once a week, oils, as it were, the mechanism of the body and cleanses the parts so that they may work smoothly and efficiently. The heart particularly is stimulated to greater activity; and as a result of the increased muscular tone in this organ, a larger supply of blood is pumped at all times through the system. No thinking woman would doubt that this flow results in greater capacity and clearness in the brain, for she knows that fire burns more brightly with increased draught. Yet this experience comes often as a revelation to some, for they readily forget the fact and lapse into inactive habits of life.

Fig. 25. — Stall bars. Abdominal exercise.

The other pictures will give some idea of what may be accomplished with individual appliances. The rowing machine (Figure 18) is an ingenious device that registers the dis-

Fig. 26. — Perpendicular ladder. Waist, abdomen, and lateral trunk and loin exercise.

tance travelled. It is built after the general style of a modern rowing shell, and has a sliding seat to bring the legs into play with the other parts of the body.

The nautical wheel (Figure 20) will be recognized from its likeness to the steering gear of a steamer. The apparatus is used to reduce the waist, and to increase the flexibility of the spine or correct a lateral curvature.

Figures 24 and 25 show exercises upon apparatus known as stall bars, introduced by the Swedes and used for localizing exercises and for appli-

cation to special conditions. A large number may use the bars at one time in squad formation if sections of the appliances are added. The movements shown in Figure 25 are strong abdominal exercises, though they may be made easier and still be beneficial by raising one limb at a time or bending the leg at the knee, reducing the leverage. The position in this instance is a rather difficult one, and would hardly be given the woman who has had no previous training. Figure 23 shows the combined use of a distinctly Swedish apparatus, called the plinth, and a chest machine. These appliances, especially in combination, are exceedingly valuable for localizing movements and for the development of special parts of the body. The exercise shown is that given to straighten the back and improve the carriage by developing the muscles that serve to hold the head erect and those that keep the shoulders back.

Women find especial benefit in exercise of the thighs and kneading of the abdomen, for which the ingenious device seen in Figure 22 may be used. The largest and most powerful muscles of the body are those that make up the thigh, and women use them little, except in stair-climbing, because the skirts impede their movements. This chair, as well as the sliding seat of the rowing

machine, also exercising these muscles, is used by women too heavy to carry their weight faster than a walk and thereby prevented from taking one of the most healthful of all exercises — running —

Fig. 27. — Vaulting horse. Side vault.

and one that is valuable for the purpose of reducing weight.

The illustrations below show two of the methods for passing medicine balls. These vary in diameter from nine to eighteen inches and weigh from three to eight pounds. I think it can be truly said that

no exercise is more popular, and few, if any, are superior in point of general value.

But for an hour's work in the gymnasium, a woman who has a definite object to accomplish or diseased condition to be corrected should have her exercise based upon a careful medical examination. The following general plan may be followed, with periods of rest by lying flat upon the back so as to relax every muscle. These alternate periods of activity and repose must be regulated by the instructor in charge, who should, in all cases of diseased condition, be either a physician himself or under medical direction.

Fig. 28. Passing the

Fig. 29. medicine ball.

1. Begin with a general exercise, such as runing, rowing, etc., in moderation.

2. Slow, deep breathing.

3. A hanging exercise, for example see Figure 21.

4. Leg movements, such as rising on tiptoes, sitting slowly to a squat position and up again to full extension.

5. Chest weight series.

6. Abdominal exercises taken on the plinth, with alternate raising of the trunk and the legs.

7. Side bendings, as in Figures 3 and 26, etc.

8. Leg exercise, as in Figure 29.

9. Jumping of every sort, even as advanced as vaulting, as in Figure 27.

10. Passing the medicine ball, with final practice in deep breathing.

Fig. 30. — The athletic girl. How she acquires physical strength in the flying rings.

Such would be a simple and logical order of exercise planned to bring into use all parts of the body proportionately. Experience in a city gymnasium has emphasized the importance of trunk movements, with less consideration of the extremities. A modern gymnasium, run on scientific principles, also seeks to develop not muscle, such as the numerous strong men display, but nerve and vital capacity as indicated by the heart, lungs, and the digestive organs that supply food to the same.

DANCING

By MELVIN BALLOU GILBERT

CHAPTER III

DANCING: ÆSTHETIC AND SOCIAL

A RECENT article in this series, upon the subject of equestrianism, begins with the following well-directed assertion: "If I should be allowed to enumerate all the ailments of both mind and body that riding is good for, I fear my eulogy would exceed the most comprehensive of patent medicine advertisements." While it is not proposed here to discuss the comparative merits of the two subjects, dancing and equestrianism, I feel that the above sentiment is equally applicable to the subject in hand.

Fig. 31. — First position.

Although it is not the intention to ignore social dancing, I shall first refer to a higher branch of the art, known as classic or æsthetic dancing, and, in order to make the subject quite plain to the

reader, at this point define it. Æsthetic dancing consists of systematically arranged exercises in the elementary principles of the art of dancing, coupled with a harmonized method of arm, head, and body movements. This form of exercise was first introduced into the gymnasium by the writer at the Summer Normal School of 1894, at Hemenway Gymnasium, Harvard University; Dudley Allen Sargent, director of physical training, Harvard University, was among the first to recognize in it an important branch of training for both men and women.

Fig. 32. — Second position.

The foundation of this coördinate work, from which an unlimited variety of the most valuable developing exercises is formed, consists of the long-established five positions of the feet and five positions of the arms, together with the positions of the whole body, known as attitudes, arabesques, poses, elevations, groupings, etc. From these, precepts are established whereby the steps, attitudes, and motions are systematically arranged, according

to method, and in strict harmony with time and cadence of music.

The introduction of æsthetic dancing into the gymnasium was prompted by a feeling that there was a lack of finish to the ordinary gymnastic exercises; that over-indulgence in out-of-door sports was, to an extent, destructive of feminine beauty and grace; that the exercise of the muscular system in achievements more suitable for men than for women had a tendency to roughen woman's exterior, so to speak, and that there was needed a work which would add beauty to movement, and through its advantages harmonize the motions of the body in a way to produce habits of graceful ease upon all occasions.

Fig. 33. — Third position.

Most persons would like to have grace and activity as well as strength. All, I may venture to say, are or would be glad to possess physical beauty as well. And there are few who do not wish to unite to these qualities elegance of carriage and deportment. Nothing can render the frame more vigorous and graceful, and conse-

quently more beautiful, than æsthetic dancing. It never fails to impart a becoming aspect and agreeable manner. By means of it the head, the arms, the hands, the legs, the feet — in short, all parts of the body — are rendered symmetrical, pliant, and graceful.

It should be not only our desire — we should

Fig. 34. — Fourth position.

Fig. 35. — Fourth position, behind.

feel it our duty — to make the most of ourselves physically, as well as morally and mentally. If Nature has failed to be kind to us in some respect, so much the more should we strive to overcome this defect and to attain, so far as in us lies, a condition more nearly approaching a state of perfectness. We owe this to ourselves and to all with whom we come in contact. The fact that

one cares little for her personal appearance is calculated to impress observers with the feeling that she holds an equally indifferent place in the esteem of friends or of the world in general.

The advantages arising from the cultivation of æsthetic dancing, especially to those who apply themselves to the art in early life, are very evident. Unfortunately, there are few so happily formed by Nature that they do not require the assistance of art to correct imperfections which the discerning eye may discover; therefore, the earlier such defects receive attention, the better. When the joints and muscles are flexible and yielding, natural as well as acquired faults may be overcome; but when time has confirmed and strengthened them, longer application and greater labor are required to accomplish the desired improvement.

Fig. 36. — Fifth position.

With what a sensible degree of pleasure do we behold the demeanor of a young lady whose natural charms have been properly cultivated. The mechanism of movement is veiled by a certain

mystery of motion which gives an air of gliding rather than striding from place to place. Her modiste has not been put to the necessity of ruffling and plaiting to conceal lack of completeness and fulness; instead of physical impoverishment there is physical enrichment.

Fig. 37. — On the toes.

Æsthetic dancing may be said to be to the body what reading is to the mind. If reading be well chosen, it adorns and proves a never failing source of pleasure to ourselves and to those with whom we associate. The same may be said of social dancing. It embellishes and perfects the work of Nature and enables us to present ourselves with amiable and becoming ease.

Æsthetic dancing is a medium through which the most symmetrical physical development may be acquired. "This is an art which does not mend Nature; rather, it changes it, but the art itself is Nature."

It may be interesting to note a few statistics of development produced by æsthetic dancing,

when conscientiously studied and practised. It raises and develops the chest, lengthens the waist, and also reduces its circumference; the hips are made smaller; the thighs and calves of the legs are enlarged; the ankles are reduced in size, while the instep is raised and given greater arch.

The changes noted in thirteen young ladies during twenty-five days' study were as follows: Average increase in normal chest measure, from half an inch to an inch and one-half; with chest inflated, from half an inch to an inch and three-quarters; variation in measure at ninth rib (chest normal), from a reduction in a few cases, to an increase of two inches and three-quarters; at ninth rib with chest inflated, from a reduction in two cases, to an increase of three inches. The waist in some cases was reduced one inch in size, while in others there was an increase, a result occasionally found in such tests. The largest increase in the calf of the leg was half an inch. The greatest reduction in girth

Fig. 38. — On the points.

of ankles was one-quarter of an inch. The instep in every case was raised.

I have known an increase in normal chest measurement of one inch in ten days, from simply carrying the head back to its proper position; and a reduction of six and one-quarter inches in girth of hips, the result of three months' practice.

Although the advent of æsthetic dancing in the gymnasium is quite recent, one finds that its value has been widely appreciated, and that it is rapidly growing in favor. Owing to the unlimited variety of combinations, a continued interest is preserved, which has heretofore been wanting in the mechanical routine of the ordinary gymnastic exercises.

I have treated of æsthetic dancing so far as a developing medium, but it would be neglecting a duty to omit to mention its value in the study of coördination. I do not fear criticism when I assert that it has no equal in this important branch of physical training. All parts of the body are taught to move in harmony, and the mind is ever busy in directing many different movements simultaneously. It is a fact that, unless the mind is employed in connection with action, the best results cannot be obtained.

Dr. Jacobs expresses the idea of Greek gymnas-

Fig. 39.
Arms in first position.

Fig. 40.
Arms in second position.

Fig. 41.
Arms in third position.

Fig 42.
Arms in fourth position.

tics by saying, "Their one great aim was to secure the mastery of mind over body, and represent the internal harmony in the inward and outward appearance." It is known that among the ancient Greeks all gymnastic exercises, and especially dancing, formed the leading element in the education of youth. High and low, old and young, cultivated the art. According to Plato, the man who found no pleasure in dancing and gymnastics was a rude, unpolished clown.

Fig. 43. — Arms in fifth position.

The great value the Greeks placed upon these two arts is evident from their assiduous cultivation by their greatest men. Sophocles and Epaminondas were renowned dancers, and Socrates did not think it undignified zealously to practise dancing in his old age, because he thought it contributed to outward and inward symmetry.

Montaigne, the French essayist, says: "I would have an outward decorum and pleasing manner cultivated at the same time with the mind. It is

not a soul, not a body, we educate; it is a man. Out of this one, we must not make two."

There is yet another important element which demands attention. It is the expressive or pantomimic quality. Dancing is considered by many to be a mere mechanical moving of the feet to music. This idea is erroneous. Dancing is the expression of inward emotion, and movements become meaningless, mechanical, and gymnastic when not inspired by the promptings of the inner self. The general public is inclined to applaud mere difficulty, marvellous material execution, novelty, and singularity of combinations, which bear no relations to the passions or emotions. Instead, the spectator should admire ease, elasticity, and gracefulness. These should always be preferred to extravagant movements and contortions. Every art has two distinct parts: the expression of human passion and sentiment, which constitutes their founda-

Fig. 44. — On the points. Arms in fifth position.

tion; and the peculiar mechanism or process of action, which gives the form, and of which the artist must be master. A dancer must know how to execute movement, steps, postures, etc., but if the effort stops there, and she does not seek to speak to the soul as well as to the eyes, she will remain a simple gymnast or acrobat.

Fig. 45. — Feet in fourth position. Arms intermediate.

The peculiarity of dancing is to evoke souls by means of bodies; to create the spiritual and the ideal by means of the material and real. With these qualities dancing must have finish in its execution, vivacity, voluptuous grace, elegance of corporeal gesture, and attitudes that speak to the senses. In theory, we might, perhaps, say that dancers are emblems and not persons; they are poets, expressing themselves without words, without rhyme, without conventional signs in black and white. Sentiment should never be outdone by mere *virtuosité;* the essen-

tial should never allow itself to be eclipsed by the accessory.

Rapidity of movement is not a characteristic of dancing. It is not necessary to move rapidly, or even to move the feet at all. We can dance with the hands, arms, body, head, eyes, lips — in fact, with any part — either singly or in conjunction with other parts. We may express the slow and graceful dignity of the minuet, or the rapid, spasmodic movements of the tarantella. We may portray the soft breezes of summer, or the rustling of the autumn leaves; the chilly winds of winter, or the glad tidings brought by the appearance of the first blade of grass in spring. We may give expression to joy, to sorrow, to anger, to hatred, or to love; in fact, we may have the body as a whole, and its members severally, so in our power that the moods of the soul may be easily and gracefully rendered.

Fig. 46. — Balancing on one foot.

The pleasures of social dancing are known at

least to those who indulge in it. It has been said truly, "The girl who dances and who loves to dance is the girl *par excellence*, whose heart is as light as her feet, and who goes through life to the merry, tripping measure; sharing her pleasures with the partner of the moment just as happily as she glides away to the music of some dreamy waltz, or romps in the two-step to 'rag-time' melody."

The arts are linked together in one and the same chain; poetry, music, painting, and dancing bear a strong affinity to each other, and the enjoyment we derive from each inspires us with gratitude and homage; and to be envied are they whose souls are susceptible to any especial degree to these pleasures.

Giving utterance to feeling by song has ever been a natural impulse, and first prompted man to accompany his voice with appropriate gestures, more clearly revealing his emotions. His breast became agitated, his arms opened or approached each other, his feet began to form certain steps, his face became expressive; in short, the whole body was soon in responsive action. Thus singing, which was one way of giving expression to pleasure, gave rise to another, which was given the name of dancing.

Fig. 47.
Open position.

Fig. 48.
Attitude before the pirouette.

Fig. 49.
In preparation for the pirouette.

Fig. 50.
Salutation after the pirouette.

Such may have been the primitive cause of the origin of dancing, although some pretend that a certain flute player named Andron, a native of Catania, in Sicily, was the first who accompanied the notes of his flute with various movements of the body which fell in harmony with his music. Its invention has also been attributed to Rhea, who taught it to her priests in Phrygia and the Island of Crete. Other reasons for its origin have been claimed, but from whatever source this amiable offspring of pleasure came, we welcome it with unqualified joy; and the Muse Terpsichore, who presides over the dance, may be assured of myriads of devout worshippers.

Fig. 51. — Balancing position.

As to the utility of social dancing, I deem it sufficient to call attention to the fact that when motion becomes a material want, as is the case when one is inspired by music, the exercise of one's energy is the surest means of satisfying it.

Dancing ought to form a part of the physical education of children, not only for their better health but also to counteract undesirable tendencies.

Dancing is not only necessary but almost indispensable to those who are fond of society. The manner of presenting one's self and of receiving others, with a graceful propriety and an easy and polite demeanor, is acquired most effectually by those who have learned to dance.

Fig. 52. — An artistic pose.

All are aware that a graceful manner, when conferring a favor, adds greatly to the admiration and gratitude imposed by the act itself; the charms of character and disposition are accentuated by bodily gracefulness. In the carriage of the body, each sex should habitually strive for an easy, graceful, yet dignified bearing, avoiding awkwardness and abruptness of movement. In woman we naturally look for grace; but both

men and women can acquire a certain eloquence and propriety of manner which distinguish them as ladies and gentlemen. All this, I claim, can be accomplished by the practice of æsthetic and social dancing.

Fig. 53.
Salutation at finish of dance.

CROSS-COUNTRY WALKING

By JOHN BAPST BLAKE, M.D.

CHAPTER IV

CROSS-COUNTRY WALKING

It is a lamentable and remarkable fact that walking has never become really popular in America. It should be otherwise, for Americans are strong and endowed with unusual nervous force. In England and on the continent, walking, particularly distance and cross-country walking, is a common and very popular sport. But if the average American be invited to take a ten-mile tramp, the invitation is likely to be refused; and the same thing suggested in hot or snowy weather would be treated with ridicule. On the continent, entire families are often met rambling through the country and over the hills, carrying lunches with them and spending the whole day in moderate physical exercise and enjoyment in the open air. Here, the family is too often scattered and amusements too frequently within doors to permit this to be common; but it should not be, as it is, almost unknown.

It is nevertheless true, that a most extraordinary development in all forms of athletics and physical exercise has taken place in America during the last twenty years. It is only necessary to mention in this connection school and college sports, the athletic clubs of the great cities, country clubs, and particularly such games as tennis, basket-ball, and golf. Each is admirable in its place, and each appeals to a certain number of individuals who formerly took little interest in such things. This great expansion of the play instinct comes as a distinct benefit to public health. But in the midst of it all, walking, the first, the freest, the cheapest, the most natural, and the best of all forms of sport, is in danger of being neglected if not forgotten. This is particularly true of women.

There are several reasons which partially explain but in no way excuse this condition. Our country, taken as a whole, is too thinly peopled to suggest walking as a means of enjoyment, which it may certainly be said to be in Switzerland and the Tyrol. There it would be impossible to travel three or four hours in any direction without finding good food and shelter. Here there is no such certainty; and the scenery is not always of a character which, so to speak, makes walking necessary. Yet, if the pedestrian will but use her eyes, our land

will be found to abound in objects of interest and beauty wherever she may turn.

The last generation was too busy for pleasure or for exercise; and rapid transit, in our own, has almost eliminated the necessity of walking at all. The bicycle, the electric car, and the motor carriage are multiplying so rapidly that we seem in danger of forgetting how to walk on the flat, as, owing to the elevator, we have already partially forgotten how to climb stairs. Yet all these things should only succeed in making walking more necessary and more attractive. The great increase of city at the expense of country population has been one of the most potent factors in the evolution of our great park systems; and we can readily get out of town, where all the best walking begins and ends. Let us consider somewhat more in detail why it should no longer remain a lost art with us.

Walking is our natural method of locomotion. We were endowed with it by nature; we have distinctly not improved on it by art. It does not require mechanical or artificial aids; beyond old clothes and proper shoes, it does not demand prepared grounds, or special buildings, and it needs no provisions for spectators. Its dependence even upon the weather is slight, and, altogether, it is the most reasonable form of outdoor enjoyment.

Following an unerring instinct, the child, in the beginning, either toes in or points the foot straight ahead. Parents, on the other hand, have tried to make the little one toe out. The child naturally throws its body and its weight forward as it moves, while adults have reversed both, by carelessness or intention, and prefer a stiff posture with the trunk thrown backward. And it is most interesting to notice that throughout the world the bodies of men to whom correct methods are most essential are taught the most faulty gait of all, — the army step.

There are but few rules for correct walking, and these are extremely simple. The foot should point straight ahead, or in exceptional cases very slightly outward. All barefooted people walk with the toes in this position; only the wearers of shoes turn them out. The stride should be easy and fairly long, the legs swinging like pendulums from the hips, and lifted only high enough to clear the ground. Many good walkers keep the knees very slightly bent, although this is a point open to discussion. No attempt should be made to shorten or lengthen the stride to match that of others, and efforts to "keep step" artificially are an abomination. The arms should hang loosely, and not swing too freely. The body must incline somewhat for-

ward from the hips; but the shoulders ought to be held well apart and the chin slightly elevated. This forward inclination of the body is to be increased as the ground rises; it assists the walker by bringing her centre of gravity in front instead of behind her.

The outer side is the strong edge of the foot, and upon it most of the weight should be borne. Anything tending to drop the inside line is distinctly bad. A slight push or spring from the rear foot, just as it leaves the ground, is desirable, but not essential. The rate of the step, as well as the length of the stride, must be decided by each one for herself. But it may be said in general that long distance or continuous walking makes it necessary that the stride should be moderate both in length and rate, and that the toes must not be turned out.

Rules in regard to costume are equally simple. Old clothes are best — warm and not too tight. No constriction of any part of the body can be permitted; loose waists, knickerbockers, and short skirts are always desirable. The stockings should be large enough, soft, and free from holes and patches. Round garters should not be worn. The hat should be light and plain, capable of standing wind and rain. Wherever it is possible, walking

should be done bareheaded. A light woollen sweater with a very low collar, or none at all, is an admirable garment, being soft and warm, while allowing perfect freedom to the arms. Underclothes should be of medium weight, and preferably of wool. Shoes and boots are the most important items of costume. These have always been the worst failures in clothes, which have been bad enough in every particular. What is essential in a foot covering is obvious: a device to protect the under and cover the upper part. The sole of the boot should therefore be a little longer and a little wider than that of the foot when it is supporting the body, for the human foot broadens when it is bearing weight. It should also be heavy enough to prevent inequalities from being felt through it. The boot must conform to the shape of the foot, and not compress it anywhere. Pointed toes are undesirable; if there must be a point, it should be directly in front of the great toe. The line of the inner edge should be straight, and the heel broad and low — not more than half an inch high. Man was not intended to walk on his toes. The boot should be laced, and fit snugly about the ankle, with the strings not tied about the ankle, but simply knotted in front. The Blucher pattern is the best. Shoes with all these requisites are

now furnished, ready-made and inexpensive, by many manufacturers. For rough walking, the high shoe is generally preferable, because small pebbles, grass, and other débris have an extraordinary way of jumping over the edge of the low shoe; yet many excellent pedestrians prefer the latter on account of the coolness and ease it allows the ankles. An absolutely water-tight leather shoe is difficult, if not impossible, to obtain, and is not at all necessary. An application of mutton tallow or sweet oil upon the leather before a long walk is quite sufficient.

I have given special weight to these details because of their importance. There is an old saying that "A marching man is as strong as his feet"; and this only emphasizes the need of considering their condition in walking. Shoes and stockings are two most important factors; a defect in either may cause a blister which will be as effectual as a sprained ankle in stopping a pedestrian. Bathing with hot water at night and cold in the morning is a good general rule, and a little castile soap applied to the outside of the stocking will usually remove any tendency to friction between it and the boot, with its consequent irritation of the skin. The relief which these simple measures will bring to one who is learning for the first time the mean-

ing of the phrase, "foot-sore and weary," can only be appreciated by experience, and their omission may abruptly terminate the pleasantest walking expedition.

We will suppose now that the girl is ready for her tramp. She is dressed appropriately, she has unlearned bad habits of gait and carriage, and returned to childhood's ways. What sort of country does she need for practice? Let her go where and how she will. Good roads are not necessary; indeed, there is much good walking without any roads at all. Weather need scarcely be considered; only extreme heat and, less often, intense cold prohibit her. The severity and duration of the muscular exertion it entails may be most accurately regulated, and it can be extended almost at will to its two closely related forms of sport, — on one hand climbing, on the other, running. Endless bits of observation and study may be added to it, — of birds, animals, trees, plants, minerals, clouds, and the wonderful beauty of the world. Merely as a form of exercise it is admirable; to become really popular, however, its pleasures must be appreciated.

Cross-country walking as a sport may be said to be defined by its name. It certainly does not suggest brick sidewalks and paved streets; it smells

of the fields, and brings to the mind the sense of complete physical freedom and the absence of artificial limitations. It takes one at will to any point of the compass: through woods, meadows, and lanes, over the hills and across valleys, with little regard for highways, as far and as long as she cares to go. It means one mile or many, a saunter or a spurt; it suggests oftentimes a sandwich in the pocket, and a consequent delightful disregard for inns, unless their surroundings woo fancy. It means indifference to wind and weather; for one may walk under cloudy as well as clear skies, and soft mud often makes easy footing. It means a small company of two or three at most, and frequently of only one's own thoughts for companions, and consequently that almost absolute independence of action which is so undeniably attractive to most of us. It means enough muscular exertion to bring a physiological sense of fatigue, and enough fresh air to create a well-defined sense of hunger and later a capacity for that rare luxury — dreamless sleep. In short, it means all things which men and women, young and old, need so much among the rush and work and study and furnace heat of our modern American life. And it offers them all to us in a form which can be obtained as easily by the poor as by the rich.

I believe it is Stevenson who says that no one really loves walking who does not prefer to walk alone. Although this came from a high authority, it may be modified a little to suit our smaller souls. It is certainly true that no one thoroughly cares for rambling who cannot enjoy herself alone with nature if the need arises. But man is gregarious, and woman likes to talk, and a companion is desirable for both reasons. Two is a good-sized party across country; if the number creeps above three, there is danger of friction. Concessions must be made to the individual; and the fewer the individuals, the fewer the concessions. Next to too large a party the easiest way to ruin a good day's outing is to invite an unaccustomed guest to join a long-established company. It is surprising that even a fine athlete, who is not used to walking, may become a real drag upon a party whose members are in other ways his physical inferiors.

As a rule, cross-country walking should both start and end in the country. City dwellers should go by rail or electric cars to the starting-point, and return in the same way. This saves time, and cuts from the excursion what would usually be only a monotonous addition. It brings the pedestrian earlier into fresher light and air, and permits her to go farther afield, while — on Sunday at least —

it permits an earlier start, which is a distinct advantage.

The majority of cross-country walks should be outlined in advance. If this is not done, a thorough knowledge of the surrounding country is essential. If possible, a tall hill should be climbed near the start, so that the traveller may "orientiren" himself, as the Germans say, or "get the lay of the land," as the Yankee puts it. The view from the top of any elevation free from trees makes the plan of the surrounding country clear; but unless the observer is careful, unpleasant surprises may arise. Small streams and swamps are almost invisible a short distance, and a hand's breadth of swamp develops a power of extension that is sometimes appalling. It is also interesting to discover how dense an apparently innocent patch of woodland becomes when one is fairly within it. An accurate pocket map and pocket compass are therefore necessities. Not because there is always danger of being lost, but because it is quite possible, even within a few miles of the city, to miss one's way for an hour or two, or long enough to spoil a day's excursion. And until one has tried it, the difficulty of making a straight line over hilly, wooded country is inconceivable. The tendency to walk in a circle is so strong, that it either over-corrects itself,

or results in a halting gait which soon ruins all sense of direction. A slight fog added, makes the result memorable.

All seasons of the year, except the days of mid-summer, are available for this pleasure. Extremes of hindering temperature may be placed at eighty-five degrees and ten degrees, though it is quite possible to walk enjoyably in zero weather, or even below it, if the air be dry and the wind light. In these low temperatures, however, care must be taken to avoid frost-bites of ears or nose, and to have sufficient food. But, ordinarily, the walker will be surprised to find how little she will care to eat. A couple of biscuit, with a square of sweet chocolate, a hard-boiled egg, or a bit of ripe fruit, is quite sufficient for refreshment.

Fall, winter, and early spring are the times more than all others for cross-country walking. In winter, particularly, one may cross rivers and lakes in every direction, and need have little fear of swamps. The distant horizon is sharp and clear in the cold air. And what can be more delicious than the crunch of snow beneath the heel, or the hissing of flakes through the bare branches and among the brown leaves? We who are becoming so accustomed to the smoke and dust of the cities in these days are in danger of losing many more

important things. For, whether it be in the woods, among the mountains, or on the seashore, she does not know one-half of Nature's charm who sees her only in fair weather and under shining skies. There is thorough enjoyment in facing a storm and going through it. The damp smell of the forest trees comes like a new sensation to the nostrils; and it is at times a real privilege to be so thoroughly wet that to be wetter is impossible. It is a distinct gain for most of us to be able to be entirely unconcerned as to whether we step into a mud puddle or over it. A little more general indifference to cold and storm would do more than much medicine in maintaining good health. But it must be remembered that a complete change of clothing should be made immediately on entering the house after a tramp through rain or snow.

A word of warning must be given to those who are not already prepared by practice against too long or too rapid walks in the beginning. Only by commencing with very short distances, and a moderate pace, and by steadily continuing, day by day, and week by week, can one ever become a pedestrian. This being understood, and followed out, through gradually increasing distances, any one without serious physical disability can in time become a really good walker. But to start without

previous preparation on a ten or twelve mile tramp is a foolish proceeding, that may be followed by unpleasant, if not dangerous, consequences.

It is always desirable to consider the questions of speed and distance in such walks as these. But it must be obvious that a measurement based on miles means nothing unless the miles are measured across portions of country of like character. One mile through dense woods or on a mountain side is equal to many on a road. Nor does time alone give an unvarying basis of comparison. Many elements, such as weather, condition of the ground, size of the party, even variations of health, may affect the rate of speed. Baedecker always measures by time, although miles or kilometres may be also given, and his average is at the rate of three miles an hour, — a safe and conservative estimate in a walking trip. In a general way it may be said that healthy girls, of ten years or over, if they are brought up to it, can easily cover, on fair roads, a number of miles equal to their age, or the equivalent of this distance. Young women from eighteen to thirty or thirty-five should be able to do much more under favorable conditions, even thirty miles in a day. This, however, should require the same sort of preliminary training that is now customary for football and rowing, or something akin to it.

The cross-country walker should never walk for "records." Simply to attempt to cover the greatest number of miles, or to make a given distance in the shortest time, kills the sport and prevents the exercise. But it is desirable to know roughly the length of time which certain familiar walks require, and the number of minutes in which a flat mile can be covered, at the usual gait. A memorandum of this might be added to the notes which every one should keep of her rambles. A most delightful journal can thus be easily formed, of interest to one's self and of value to one's friends, — of keenest interest and greatest value to the little ones who, in after years as they in turn begin their childish tramps, will clamor to hear of the walks the parents took "when they, too, were girls and boys."

Finally it may be said that if any healthy woman will start on some such expedition, and cover twelve or fifteen miles at a fair pace, with the clear cold breath of the wind tingling against her cheek, or the patter of rain or sting of sleet on her face, and will come back to a warm house, a bath, and dry clothes, with the appetite of an Indian and a sense of well-being that is indescribable — if she will do this, and still doubt the delight and benefit of cross-country walking, then she is not what the typical American girl is commonly believed to be.

SWIMMING

By EDWYN SANDYS

CHAPTER V

SWIMMING

The physically sound boy and girl should be taught to swim, for swimming, in moderation, is a most enjoyable and beneficial form of exercise, and the mastery of it may some day mean the saving of life.

The value of swimming as a training exercise, and as a reducer of superfluous adipose tissue, has been proved by some of the most famous athletes, yet a word of caution is necessary. There are certain weaknesses, notably forms of heart trouble, which might be dangerously aggravated by an attempt to master an art which, during the early stages, certainly entails more or less severe exertion and excitement. The family physician is the authority to whom the matter should always be referred.

What the novice wants is to know how to keep her head above water, to put it under and bring it forth at will, to venture safely beyond her depth — and these in the shortest possible time. After she

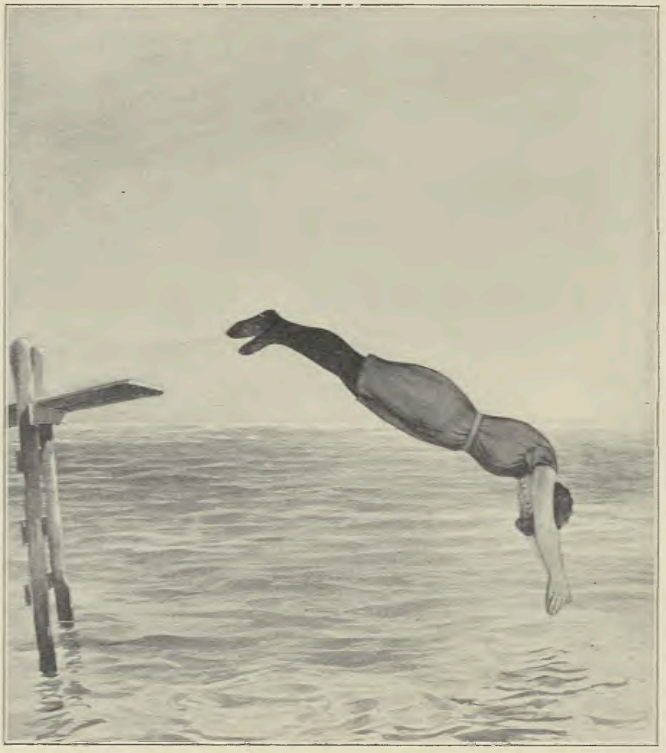


Fig. 54. — A correct dive.

has learned to feel at home in her new element, she still has the privilege of imitating some expert's style and any and all fancy strokes.

Men and monkeys do not naturally swim, but a child in the water usually attempts a sort of beating movement with hands and feet, as though somewhere it had a trace of a lost instinct which ages

ago taught the small human how to keep afloat. As it is, the majority of children fear the water, and much of this fear is due to the folly of parents, who in misguided anxiety warn their offspring against all sorts of real and imagined perils of the deep.

To some boys and girls swimming appears to come almost naturally, and I believe the average girl will master it more quickly than the average boy. This, probably, may be accounted for by the fact that the female form floats better, or perhaps it is because the girl naturally is a year ahead of the boy.

The reason why the young pupil cannot walk into the water and at once swim is simply that the natural excitement and the awkwardness of untried muscles prevent the exact following of the teacher's instructions. The instant the proper motions are performed, the pupil is swimming. It cannot be otherwise. Her head might and probably would go under, but so long as she held her breath and maintained the proper leg and arm movement she would be swimming a short distance below the surface, because she could not possibly be doing anything else. And, furthermore, if her efforts were maintained for thirty seconds, her head would rise above the surface, because it could not do otherwise.

The trouble with beginners is they make too much work of the task. Providing the effort is intelligently made, the slightest muscular exertion will suffice to keep one afloat. The propelling stroke must have more power than the "recovery," or the swimmer will not progress. Because of the tendency to forget this, the popular breast-stroke is not the best for the earlier lessons. It has the other undesirable feature of being exceedingly

Fig. 55. — Dog fashion.

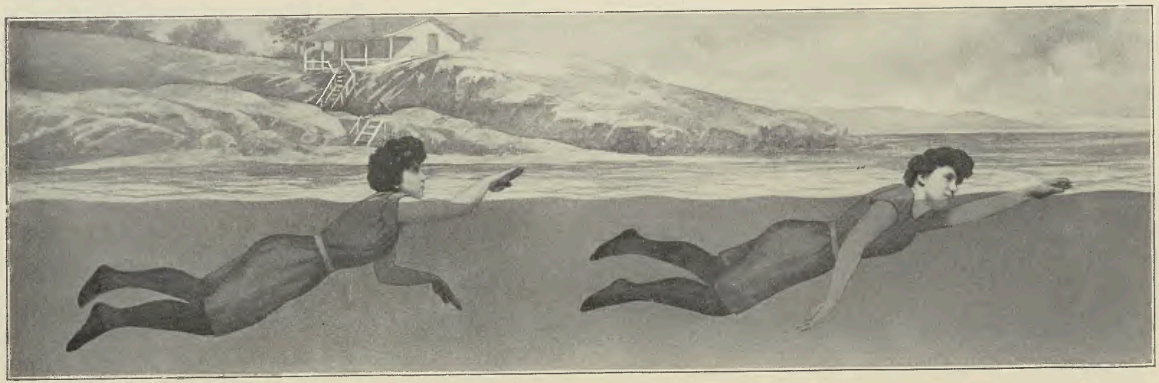
fatiguing, owing, of course, to the fact that few, if any, of the ordinary uses of the arms at all resemble the breast-stroke movement. The action of it, however, may be closely imitated upon several of the now popular weight and elastic cord devices for exercising at home. The student of breast-

stroke swimming will find a regular course of stroke movements an excellent preparation for the actual swimming movement.

The greatest difficulty the female pupil has to encounter is found in the costume which that all-powerful factor, custom, has declared she must wear. Judging from the practical and rational point of view, anything more absurd and useless than the skirt of a fashionable bathing-suit would be difficult to find. No one knows this better than the female professional swimmer, who, of course, is businesslike and practical in everything she does. Because she has learned that every unnecessary thread in a costume means an unnecessary drag upon her efforts, she eliminates every possible inch of fabric.

While the reader is neither advised nor expected to follow professional methods, nor to attempt the rôle of extremist in the matter of costume, she may do well in remembering the old saying, "Enough is as good as a feast." Just to satisfy myself upon this point of costume, I once wore a close imitation of the usual suit for women. Not until then did I rightly understand what a serious matter a few feet of superfluous cloth might become in water. The suit was amply large, yet pounds of apparently dead weight seemed to be

Breast stroke, first position (start). Fig. 56. Second position.



Side stroke, showing right arm extended. Fig. 57. With left arm extended.

pulling at me in every direction. In that gear a swim of one hundred yards was as serious a task as a mile in my own suit. After that experience I no longer wondered why so few women swim really well, but rather that they are able to swim at all.

A much better suit would be a one-piece, loosely fitting garment of fine, light woollen stuff, with the skirt as an adjunct, but not as part of the actual swimming-suit. Such a costume would meet all real requirements, while greatly lessening the tax upon one's strength. The true value of woollen fabric lies in the fact that it is the surest prevention against chill and all its unpleasant, if not extremely dangerous, possibilities. Experienced sportsmen, especially anglers, always wear pure wool next the skin, because they know the truth of the adage, "One never takes cold after wading in flannel."

Setting aside the possibility of saving life, the actual value of swimming to women is well worth their serious consideration. In the first place, it is a highly beneficial and fascinating form of exercise. It fosters a supple ease of movement, which is apt to lend additional grace to the carriage, while for those able to dispense with a few pounds of surplus adipose tissue, it is one of the best of reducers.

The truth of this statement has been proved time and time again by athletes.

The easiest of all swimming movements is "dog fashion," in which the hands and feet beat alternately in an almost directly downward stroke. Indians unfamiliar with white methods use it, or a modification of it, and experts shift to it when desir-

Fig. 58. — Plain floating.

ous of resting. Hence, beginners need not bother about the breast stroke, or the frog-like kicking of the legs. Let these come later. They are valuable, but they can wait. The skater's first lesson is not a complicated figure, but how to stand up, and the swimmer's first should be how to stay up in the simplest manner possible.

Let us imagine a novice ready for the initial attempt, preferably, but not necessarily, under the direction of some experienced person. The water should be some pond or quiet nook, free from wave, tide, or current. If the bottom be smooth sand, so much the better. In any event it should be plainly visible and free from sudden inequalities and anything likely to hurt the feet.

The next stage is merely a question of nerve. If

Fig. 59. — With hands behind the head.

the pupil be fearless, let her slowly wade in until the water is about the armpits. It is important that she should thoroughly accustom herself to the feel of the water. Allow plenty of time, until all signs of nervousness have disappeared. A few moments should suffice.

Then let her move shoreward to the proper depth

Breast stroke, third position. Fig. 60. Fourth position (finish).

Side stroke, showing left arm extended. Fig. 61. End of work with right hand.

and lower the body by bending forward until the hands rest upon the bottom and support the weight, while the legs are loosely extended. As she half floats, the water will just cover her shoulders. Give her plenty of time to become used to the novel position. So soon as she feels at home she will kick out and move her hands along the bottom shoreward. I believe in allowing plenty of this sort of fun, for it will make the pupil keener for the next lesson. Take her out of the water a bit sooner than she would prefer.

Not much progress? Don't be so sure of that. More has been learned than you fancy. The dread of water has been lessened, the pupil has enjoyed herself, she has not been bullied or scared, and she has acquired confidence in her instructor. She will be not a little proud of herself and eager for another lesson, and that is precisely what is desired.

For the second lesson the teacher should have a canvas or leather strap, long enough to buckle loosely around the pupil's inflated chest and afford room for a secure handhold. Have her realize that she is safe on this strap, and the great difficulty is mastered. Have her stretch out with her hands on the bottom, put the strap about her, and slowly move out into deeper water. Be extremely careful lest an injudicious word or movement cause alarm.

Nearly every pupil is afraid at this stage, although many attempt to conceal the fact. While supported by the strap there is absolute safety. The only possible disaster is a slipping of the tackle, but with a considerate teacher this should never occur.

So soon as the pupil is fearless in floating on the

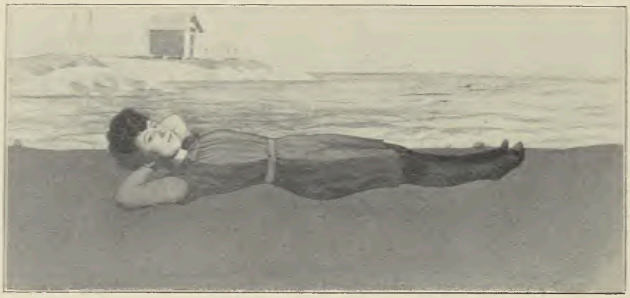


Fig. 62. — With hands under the head.

strap, have her go steadily through the slow, well-timed "dog fashion" movements of hands and feet. Naturally the legs will play too strongly at first, their tendency being to keep the feet at the surface while depressing the head. The feel of the strap will at once tell when the proper balance between leg strokes and arm strokes has been found; and at that instant the pupil begins to swim. The teacher can now, without saying anything, slacken the strap until the pupil supports herself unaided, but care should be exercised that the strap can be

instantly brought into play. As the swimmer slowly moves ahead, the teacher should wade along until a few yards, maybe, have been covered. Then the real difficulty has been mastered — for the pupil has swum, and she knows it. A few more lessons on the strap to inspire confidence, a few proving trials with the teacher near enough for an emergency, then hey! for deep water.

After this come fancy strokes and all the attributes of the higher branches of natation. These, properly illustrated, may be readily copied.

A bright, fearless pupil should learn in less than half a dozen lessons. Awkward and nervous youngsters require cautious handling. One must be coaxed, another bantered, a third treated with mock severity. The teacher must decide which method to follow.

Diving should be practised as soon as the pupil is sufficiently advanced, for without it the art of swimming is only half mastered. The first requisite is to learn how properly to fill the lungs and to hold the breath to the limit of one's capacity. The best practice is to empty the lungs, then close the mouth and steadily inhale through the nostrils until the lungs are completely filled. Hold the air as long as can be comfortably done. Then forcibly expel it *through the mouth*. Repeat fifteen times.

Do this morning and evening for a week, then increase the number of fillings and expulsions to twenty-five or thirty for a single exercise, and continue for three weeks. Those who doubt the benefit of this exercise need only to try it to be convinced. If they will have their chests accurately measured before the first exercise and remeasured a month later, they may be agreeably surprised. Distance runners and singers may also profit by this simple method.

Fig. 63. — Flat on face with arms outstretched.

The length of time one can remain under water varies with individuals. An ordinary pair of lungs, properly trained, can stand at least one minute; others can double that time, and a few can almost treble it. This, of course, when no exertion is

necessary. The greater the muscular exertion, the sooner is the air exhausted. Constant practice at holding the breath frequently will accomplish wonders. In a bath-tub or wash-basin the writer can do full two minutes without serious distress.

Fig. 64. — Resting on right side.

Young readers should exercise proper caution, for there is no sense in overdoing anything.

Practise opening the eyes and looking about when under water. There is much to be seen down below. Never dive with the eyes open, but open them as soon as the swift plunge is over.

To float is very easy to plump, big-chested folk, but impossible to a few of the lean, small-chested type. The easiest position is upon the back with the arms fully extended beyond the head and the legs straight. It is much easier to float in salt water. To do it, fill the lungs and sink slowly

backward while holding the breath; extend the arms and legs, and in a few seconds the face will rise above the surface. It then becomes a question of proper balance. Once this is secured, the person may float for an hour or more without trouble.

Breathe cautiously while floating and never suddenly empty the lungs, or you will at once sink. Only a master of swimming could force himself to the surface if by accident he went under when his lungs contained very little air.

SKATING

By WILLIAM T. RICHARDSON

CHAPTER VI

SKATING

Ice skating as an outdoor sport for women will certainly compare favorably with any other exercise because it gives, in a marked degree, grace of carriage, ease and suppleness of movement, brings into play unused muscles, equal strength to both legs, and stimulates deep and regular breathing, all of which teach one to stand erect.

Fig. 65. — Outer edge-roll forward.

What is more graceful than the rhythmic swing when skating the old-fashioned Dutch roll, now called the "outer edge-roll"?

As when taking up any other sport the first

thing to consider is the equipment, which should consist of a moderately short walking-skirt, reaching to within four or five inches of the ice, and a pair of well-fitting shoes that can be laced up high enough to give support.

Buttoned and low shoes are out of the question. The modern skating-shoe has straps attached to give additional support in case of weak ankles, and laces well down to the toe, which allows a more perfect adjustment. The heel should not be too high, an inch or less. Tan leather is cleaner, and some skating shoes are made with a waterproof sole which gives greater warmth and dryness.

Fig. 66. Correct position of skate on shoe.

The most suitable skate is the one that has the so-called heel button, as it gives the securest fastening at the heel and is easily detached. The screw toe clamp is preferable to all others.

The extreme length of the skate should not be greater than the whole length of the shoe, except in the case of racing skates.

The curve of the blade best adapted for all-round work on the ice is that known as a seven-foot radius. The skate should be moderately sharp. In attaching a skate the blade should

follow in line from the centre of the heel to the centre of the toe of the shoe.

In the care of skates vaseline makes an excellent preventive against rust and should be frequently applied.

Before going on the ice a preliminary exercise indoors, for beginners, saves much time, gives confidence, and helps them to acquire the necessary balance. Standing on a board or carpet, one simple exercise, with the skates on, is to raise one foot and balance on the other; also practise bending the knee of the supporting leg.

Fig. 67. — Forward outer edge. Showing position of knees and feet.

This bending the knee, called "cushioning the stroke," is most important in skating, because it acts like a spring on a carriage, taking up the

vibration, and so prevents a jar; it also relieves the strain on the ankle. Walking indoors with the skates on is also another good practice exercise.

Almost all skating movements are done forward and backward on either the outside or inside edge of the skate blade, obtained by tipping the skate, foot, and body slightly outward or inward, together.

In beginning on the ice, the way to avoid a fall by slipping is to stand on both inner edges, then, if the skates slip forward, bring the toes together, which will block the slide, or the heels together if the slipping is backward.

Fig. 68.

From the standing position to move forward, keep the left foot, which is the first to carry the whole weight, pointed straight ahead. The toe of the right foot should be turned outward. The momentum is obtained by a little push from the inner edge of the right skate (called "unemployed") which is about to leave the ice, and at the same time a gradual swinging forward of the left shoulder in the same direction as the left foot (called "employed"), keeping constantly in mind that the knee of the now employed foot (left)

should be slightly bent, as it helps to control the balance.

In this movement the skate is nearly vertical; if tipped at all sideways, it bears on the inner rather than the outer edge. While moving forward on the left skate, gradually draw the right foot up and forward in line to the first position of the left, pointing that toe straight ahead. Now place the whole weight on the right skate, push off with the left and swing the right shoulder in that direction, thus keeping up the momentum and cushioning the new stroke with the right knee bent.

Never stiffen; it is fatal to graceful skating, and usually results in a fall, because it prevents the adjustment of the body from maintaining the balance. In swinging the shoulders forward avoid bending at the hips. This is the simplest form of forward skating and should be practised very slowly at first, with frequent rests.

The mark the skate leaves on the ice in executing this simple movement is a very small part of the circumference of a large circle.

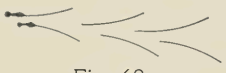


Fig. 69.

The next step after mastering the plain forward stroke is the "outer edge-roll" forward, which differs from the first movement inasmuch as the

small section of a circle is increased to a full half-circle of less diameter, supporting the weight while travelling on the outer edge of the skate. Swing the shoulders of the employed side well out sidewise in the direction of the employed foot, at the same time bend the knee of the employed leg with a dipping motion to cushion the stroke, and start the momentum forward, describing a full half-circle of moderate size. The unemployed foot is carried straight and always in the rear of the employed foot, the toe being well turned out. Now gradually swing the unemployed foot forward, keeping the skate just clear of the ice, being careful not to let it swing past the employed foot, until the weight is about to be placed upon it, then the heels are almost touching.

Now shift the full weight to the unemployed foot, and so alternate the motions, describing a half-circle as nearly perfect as possible. With each swing, of course, the shoulders change as the feet alternate.

Fig. 70.

The correct position of the arms is hanging straight down by the sides in any easy way, or the hands may be placed in a muff. Do not watch the feet, keep the eyes looking well ahead to avoid

obstacles that may be in the way, such as sticks or rough ice.

Another skating movement is the "inner edge-roll" forward. In starting, place the employed foot (left) on the ice with the skate on the inner edge. Most of the weight should be carried on the heel of the skate blade, as it cuts the ice more easily while moving. The shoulder of the employed side is swung out in the direction with the employed foot. Push off with the unemployed foot (right), and while moving draw it up in line with the employed foot, heels touching, and carry it there till the finish of the stroke.

Fig. 71. — Inner edge-roll forward.

Then shift the whole weight on to the right foot, making it now employed, and at the same time push off with the left skate. This inner edge movement is continued over the ice, and the

mark the skates leave is called the "hooked bill or chain." This is very important for every skater to learn, as almost all skating figures call for one edge as much as the other.

Fig. 72.

Now that the skater has mastered all the principal edge-rolls forward she must accomplish the same backward to be considered a good skater.

Before trying to strike out backward I should advise her to practise turning around first to the right and then to the left on the flat of her skates. It is also a good practice in learning to stop one's self while skating, which is quite essential to all skaters.

For example, you are skating along over the ice quite rapidly, and suddenly you wish to stop for some obstacle that happens in your way: just place both skates down on the ice and rock out quickly to the outer edge of one skate, the other will turn to the inner; at the same time turn the whole body, and hold the skates on the edges, — and a full stop is instant. It is caused by the turn of the whole body, and the cutting in of the skate blades sideways into the ice.

After you are able to turn around in both directions and want to start skating backward, I

strongly advise you to relax your knees as much as possible, for if you should happen to fall, it would be forward instead of backward, which by all means would be better for the dignity of the skater!

Fig. 73. — Inner edge-roll backward.

Place one heel (left) back in an outward direction, push off with the unemployed (right) inner edge, swinging the shoulder outward and backward with the skate in the same direction. After some distance has been covered, enough to call a stroke, shift the whole weight to the right foot (making it now employed), swing the shoulder out and push off with the left unemployed inner edge, making another stroke, and so on, alternating the balance with swing and executing the simplest form of backward skating. A great help in all backward skating is to get as much propelling

Fig. 74.

power from the push-off of the unemployed foot as possible, for most beginners do not swing the shoulders out enough when skating backward.

One more skating movement, after one can skate the simple backward stroke, is the "outer edge-roll" backward. Start by placing the employed foot, heel turned out a little on the outer edge of the skate. Bend the knee, swing the shoulder out in the direction of skating backward. The unemployed foot is used in pushing off. After the first stroke the weight is shifted to the unemployed foot, making it employed, and the shoulders are now swung out in that direction and so on, describing as in forward skating a half-circle at every stroke.

Fig. 75. — Outer edge-roll backward. Second position.

The swinging out of the shoulder in the direction of the skate not only adds to the grace of the movement, but helps to hold the skate on the edge while travelling.

Fig. 76.

One important point to remember when skating backward is to see where you are going. This to the average beginner sounds impossible, but it is not.

Fig. 77. — Inner edge-roll backward.

For example, when moving back on the outer edge on the employed foot, gradually turn the head around and look over the unemployed shoulder, and you will find that you will be able to see just where you are skating quite easily.

After this outer movement comes the "inner edge-roll" backward. In starting, place the employed foot on the inner edge of the skate. The

knee being slightly bent, swing outward with the shoulders. The unemployed foot is used for pushing, and when it leaves the ice it is brought up so that the toes of the shoes touch. At the finish of the first stroke the unemployed foot becomes employed, and the balance is now changed in that direction by dropping the full weight to the employed foot. To hold the skate firmly on this edge, carry most of the weight on the heel of the blade as in skating on the inner edge forward, as it prevents one from turning around in a small loop. The skate mark left on the ice is the same as that left after executing the inner edge-roll forward, "hooked bill."

Fig. 78.

Crossing the feet while finishing or starting the different outer edges makes a most charming style of skating. It is called the "cross-roll." It is done entirely on the outer edges of the skates. The momentum is executed as follows: —

Move forward, same as in the outer edge-roll. When the unemployed foot leaves the ice, swing it past and across the employed foot; then place it on the ice, carrying with it the whole weight of the body, the skate being on the outer edge. Then push off with the other foot from the outer edge of the skate blade. Never do the skates

touch on the inner edges. The shoulders are carried in precisely the same manner as in the outer edge-roll.

The cross-roll backward on an outer edge is executed in an exactly reverse manner from the forward. The unemployed foot is swung back and crossed on the outer edge of the skate, in the rear of the employed foot.

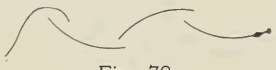


Fig. 79.

A very important point to remember when crossing the feet forward is to point the toes in when placing the skate on the ice. When going backward point the heels in, as it helps one to start with the skates keen on their outer edges.

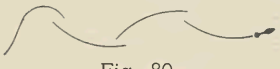


Fig. 80.

There is a very easy figure that can be done forward and backward from this cross-roll movement, called the "figure eight," on two feet. It is marked out on the ice by making one complete circle on one foot on the outer edge, then at the finish cross the other foot over. That is, cross the unemployed over the employed and make another circle on that foot, and by making circles on each foot in the marks as first started, the figure on the ice will be the same as in diagram.

Fig. 81.

The skater should now be eligible to skate in company with a partner. This is called "hand-in-hand skating." The most simple movement to try first is to start by facing your partner, and each one execute a circle forward on the right foot, clasping hands, while on the last half. Then as you both complete a full circle on the outer edge disengage hands, and each execute a circle separately on the outside of the centre one, coming back to the first movement, clasping hands again, and continue skating the inside circle either once around or twice together.

Fig. 82. — Cross-roll together.

After both skaters have practised these circles to good purpose, start on the inside circle, again clasping hands as before, only holding till *two* complete revolutions have been made. Disengage hands halfway be-

Fig. 83.

tween the outside circles, and on the unmarked ice make one circle each. Then follow back to the centre circle and repeat at will, describing on the ice five circles, named the "combination eights."

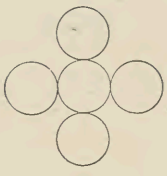


Fig. 84.

Another pleasing manœuvre to both skaters and spectators on the ice is the "waltz step." In beginning, the partners face each other in the same position as in the ballroom. One skater starts by moving back on the outer edge-roll on the right foot, the partner on the outer edge-roll forward on the left, both making a full half-circle. Then each skater makes a half-turn, and the one that was skating forward makes to the outer edge back on the right, now leading while the partner is following on the forward left. At the finish of this second stroke, both make another turn and change back to the same edges as in starting. Now the skater who was leading back on the right changes and leads back on the outer left, the partner following forward on the outer right to a full stroke. Both turn, then the skater who was leading back on the left is now following forward on the right, and the partner is now leading back on the left.

At the finish of this second stroke, both make

Fig. 85. — Front, showing the waltz step. Simple hand-in-hand skating.

another turn and finish in the same position and on the same edge as in first starting. The waltz step when skated by two good skaters to music is by far the most fascinating movement on skates. The whole movement all through is simply the outer

edge forward, to outer edge backward, to outer edge forward again, making all together three edges, with two turns in the same direction. By keeping this in mind there will be less chance of one forgetting the proper position. When

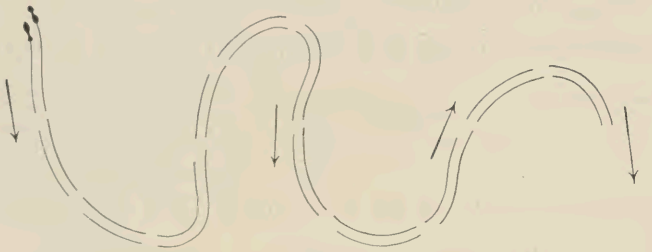


Fig. 86.

changing from one edge forward to another back, never jump, simply step; for jumping is very apt to throw your partner out of balance and result in a fall.

Always relax at the knees, swing the shoulders out well, and the whole movement will be much more graceful.

Another variety of skating which provides an opportunity for the skater to show her individual skill, is the making of figures on one or two feet.

One simple movement on two feet is the "grape-vine," done by moving to the right or left while the skates remain on the outer edges. The toes lead, making two points to the front, while the

heels lead, making the same to the rear, describing in a line between a serpentine on each foot.

To carry the figure to the left, the left foot leads, or if skating to the right, the right foot leads, gaining impetus in this way while moving. The position of the feet while executing this figure is rather awkward, but the marks left on the ice are very pretty. This is the simplest grape-vine movement and can be elaborated upon by making two or more points, loops, etc., at the turns.

Fig. 87.

There are also any number of designs and one-foot figures cut on the ice. A very easy one to do is the figure "3." It is executed by making a simple half circle forward, turning on the outer edge, making the same backward on the inner edge.

Fig. 88.

Figure "3's" can be done either by starting first on the outer or inner edges, forward and backward, remembering that a complete change of edge is made without change of direction.

Fig. 89.

This figure "3" can be developed into many different designs by making two or more turns from the following edges. Outer forward to inner backward, to outer forward again; or inner back-

ward to outer forward to inner backward again, vice versa, called "clover-leaves."

Fig. 90.

All these can be skated first on one foot, then on the other, or may be made into continuous movement on one foot.

The figure "8" makes another very attractive one

Fig. 91. — Figure eight.

to do on one foot. First make a full circle on the outer edge, then at the finish make another circle on the inner edge on the same foot in a continuous movement.

Fig. 92.

The "cross-cut" or "anvil" makes another fine design on the ice. It is carried out entirely on the outer edge of the skate, by making a small curve forward on the outer edge, then a straight line back on the outer, and forward in a curve on the outer edge again.


Fig. 93.


Fig. 94.

Four of these cross-cuts in succession, placed equally apart from the centre, make a very handsome figure called the "Maltese cross."


Fig. 95.

There are also many figures executed on one foot. In fact, too many to mention. A few I should ask one to try would be the brackets, loops, rocking turns, etc. They can all be done on each foot, which by practice makes the skater as strong on the left foot as on the right.

It is of great service to study the names of the edges and figures, for if you have them clearly in your mind, you will find it much easier to make them on the ice without hesitation. This can be done at home when there is no skating.

Skating as a sport has changed during the past few years from miles and hours of harbor and river skating to a less fatiguing, more graceful style, on

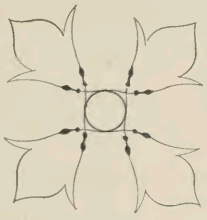


Fig. 96.
Wellesley star.

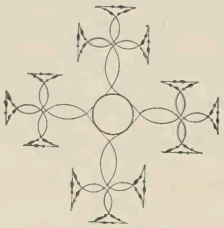


Fig. 97.
Richardson's star.

Fig. 98.
Combination star.

small spaces — as ponds and rinks. In nearly every city where it freezes, a skating-rink of some sort can be found. On these small spaces the woman can show what grace really is while skating simple edges. Not as a one-foot contortionist skater! Modern rinks of to-day are so constructed that there is little chance of being held back by the wind, which has always been a woman's greatest hindrance while skating on large open spaces.

Fig. 99.
Clover-leaf star.

The ice is always kept in much better condition

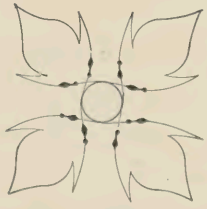


Fig. 100.
Tulip star.

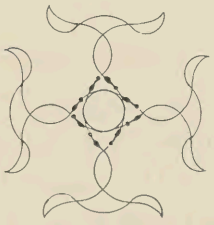


Fig. 101.
Chicken-bill star.

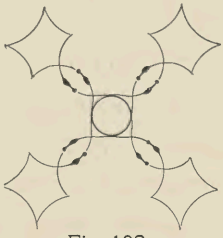


Fig. 102.
Country Club star.

by the sweeping off of any powdered ice and chips cut up by the skaters. At night all cracks are soldered up, and the ice sprayed over with water, making a completely new surface every day.

If one is in doubt or lacks confidence in learning, a competent instructor is on hand to give advice and support to the beginner, which saves a number of heavy tumbles in the practice of the art; and in my opinion very few women can afford to fall many times, as it takes very few falls to result in discouragement to the beginner. Another advantage of rink skating is that music of some sort is usually provided. It helps very much to keep the proper cadence of strokes and gives lightness of feeling while on the different edges.

In the early winter, when the ponds are first frozen over, the first thought of the average skater is, "How thick is the ice?" "Will it bear?" etc., to save one from a cold ducking.

I take the following from an engineer's hand book: —

"Two inches of clear, black ice will bear infantry. Four inches will bear cavalry. Six inches, field-guns. Eight inches, heavy siege-guns with a thousand pounds to the square foot. Snow ice is very dangerous and should be at least two inches thick before venturing upon it."

Every one should learn to skate when young, for in one's school days one has much more time to practise the sport and doesn't mind falling.

The expense of keeping up the equipment is far less than that of golfing, ice-boating, yachting, etc.

Skating, according to recent expert medical opinion, is particularly healthful because of the extra amount of ozone inhaled while exercising in the cold, dry atmosphere; for in winter the air is more fully charged with ozone which is so essential to life.

Like swimming, when once the exercise is learned, it is never forgotten.

One Boston gentleman, now at the age of three score years and ten, can skate all the edges, Mohawks and cross-cuts, with as much ease and grace as a person in his teens.

ROWING

By LUCILLE EATON HILL

CHAPTER VII

ROWING

THE lovers of out-of-door pastimes will not deny the supreme delight of recreation in or on the water — sea, lake, or river — during the warm summer months; and boating, whether sailing, paddling, or rowing, shares the attractions of swimming, which many believe to be the king of sports.

Fig. 103. — Ready to practise body swings.

While canoeing has its peculiar fascination and distinctive physical benefits, rowing can be enjoyed by a larger number of pleasure and health seekers because of the superior steadiness of the skiff in the hands of a novice and the generous provision usually made at shore and other resorts for rowing in small boats. The farm, too, if a

pond or river be near by, has some sort of a craft in which fun and exercise can be had, even though the oars are not mates and the rudder is missing. But a girl with a little ingenuity can find a substitute for a lost tholepin and with a little help can secure a good foot-brace; and the popular tomato can, for use in case of a leak, must not be forgotten.

Fig. 104. — Forward swing.

Rowing — for girls, let us be sure to assume, as men are not expected to benefit by this treatise — may be divided into skiff or pleasure rowing, pure and simple, and crew rowing, which is, indeed, also a pleasure for those who delight in constantly being found fault with because they cannot do twenty-six things at the same time, although it is not by any means simple or a recreation in the same sense with skiff rowing.

The general principles of good oarsmanship, excluding the fisherman's deep-sea dory rowing, must be everywhere the same, I imagine, whether developed and applied with an exhaustive study of

mechanics by a racing eight or modestly exploited by a seeker of pond-lilies. Perhaps the choice between skiff and crew rowing must be decided by one's love of scenery, as the skiff oarswoman can happily gaze on the face of Nature while the crew oarswoman fixes her eye on the neck of the girl in front.

In Wellesley every established sport is represented by an organized club made up of class squads, from which crews and teams are chosen to represent the college classes in the water carnival "Float" and in the inter-class games on Field Day. Therefore, crew rowing, thoroughly officered, disciplined, and coached, is naturally attractive, even though it means real study and great patience on the part of the novice. There is a fascination in conquering the apparently animate and tricky sweep, in feeling the "beat" in the boat when the eight succeed in getting the water together for a stretch. Then, too, the joy is great of wearing on the white jersey the

Fig. 105. — Backward swing.

class numerals, hardly won, or the college "W," still more difficult to secure.

In addition to the members of the Rowing Club, a large number row in skiffs, and the good influence of crew rowing has been noticed in the improved form of those who neither row regularly nor under special training; example and friendly help spread the important points of a good pleasure stroke. Therefore, a girl who is taught to row correctly with a sweep on a crew can apply as much of that instruction as is needed when rowing with two oars in a skiff. The physical benefit and recreation may be greater or less in crew as compared to skiff rowing, according to the health and temperament of the would-be oarswoman.

The freedom of skiff rowing is most refreshing to mentally tense or nervous persons, who would chafe under the critical instruction and tire under the exactness of a crew's drill. On the other hand, the alert and rhythmical muscular action, the perfection of response of the muscles to the will, in unison with others in the boat, has a fascination which is a real stimulus to those who can profit by crew rowing.

The physical benefits which women derive from rowing cannot be exaggerated, provided they are

willing to master the rudiments of the sport — for one must strive for good form, deep breathing, strength of back and chest, and wear no tight or stiff clothing about the waist. Correct rowing induces an erect carriage and finely poised head, a full chest and well-placed shoulders. Incorrect rowing disturbs all harmony of the figure. One can row one's self round-shouldered as easily as erect! Indeed, many girls lose the beneficial results they fancy they are gaining by rowing, through ignorance of a few simple fundamental principles of the exercise.

In novice instruction, we divide rowing into two classes: "fixed seat" and "sliding seat" rowing. Fixed seat rowing furnishes all the special exercise most needed by women. It implies rowing on a thwart in a skiff or on a strapped sliding seat in a crew boat rigged for the full stroke. Sliding seat rowing is of secondary value for women. It is simply fixed seat rowing with the addition of leg exercise in using the slide, which adds length to the stroke but increases the number of complicated motions to be learned before the stroke becomes automatic. A candidate for a Wellesley crew is always well grounded in the theory and practice of fixed seat rowing before she is permitted to use the slide. Skiff oarswomen, not

using slides, will, therefore, be most interested in fixed seat rowing.

Again, we divide the study of the stroke into "outboard" and "inboard" work. Outboard work, or the accurate use of the blade in relation to the water, is developed in unison with inboard work, or the application of power by the rhythmical motions of the body, arms, and wrists. With a little patient practice the mind becomes relieved from the guidance of the refractory muscles and one acquires a habit of repeating the analyzed motions correctly and smoothly. The inboard work is studied as a "skeleton stroke" in the gymnasium, the novices sitting in long rows on low benches, with the feet held firmly in straps. Then the rowing machines afford additional assistance. But outboard work, or watermanship, can never be mechanical. It is a constant, absorbing effort under ever varying conditions of wind and wave: to place the oar in the water with accuracy of position; then to pull it through steadily from the "catch" of the water to the "finish of the stroke," maintaining the same position of the blade just under the surface of the water through the entire stroke. Even greater nicety of judgment and guidance are needed in the "recovery." The oar must be taken out of the water neatly,

Fig. 106. — Straight-arm rowing.

Fig. 107.—The start.

the "feather" must be put on and taken off correctly, and the blade of the oar must approach the water carefully in order to enter it on the following stroke without splashing or "slicing."

The stroke proper, or the passage of the blade through the water, is divided into two parts, called the "backward swing," and the "draw" or finish of the stroke. The recovery, or the passage of the blade over the water in preparation for the following stroke, is also divided into two parts, called the "shoot" and the "forward swing."

A novice truly desirous of rowing well will practise the "body swings" on a low bench with her feet firmly supported. She will sit up with erect head, shoulders drawn down and back, chest expanded, and waist muscles firm, placing her hands on the tips of the shoulders, elbows held well down at the sides. She will then practise the pendulum-like forward and backward swings, taking care to preserve her strong "set-up," swinging rhythmically forward and back from the hips. Care must be taken not to reach too far forward, not to draw the shoulders out of place, or to curve any part of the back. Also, equal attention must be paid to the limit and form of the backward swing; one must avoid relaxing the waist muscles, dropping the chest, and a forward movement of

Fig. 108. — The finish.

Fig. 109. — "Over-reach" of bow.

the head. In the forward swing the chin rises slightly; in the backward swing the muscles in the back of the neck are strongly contracted, the head keeping in line with the erect body. The more faithfully this simple exercise is practised the more attention can be given to the work of the blade when in the boat.

Having by practice made the accuracy of the body swings mechanical before taking the oars, step into the middle of the boat, and, sitting on the thwart, place your feet against the stretcher so that the knees are slightly bent and turned out. With straight arms place the hands on the ends of the oars, hooked, not "fisted" — for the hands and wrists should be flat and on a line with the straight arms when rowing. This position of the hands and wrists should preserve always the perpendicular position of the blades — with the concave part of the blades or spoons faced to the stern; *i.e.* the direction in which the oarswoman is facing.

After getting the correct position of the hands on the looms of the oars, bring the lower edge of the perpendicular blade near the surface of the water, turn the hands back on the wrists without letting the "hooks" slip on the oars, and "feather" the oars. The above is the "attention" position.

Swing forward with the blades skimming the

Fig. 110. — "Meeting the oar."

Fig. 111. — "Tumbling over."

water toward the bow, the hands still bent back on the wrists and the blades feathered. This position is "ready to row."

The novice, being ready to row, or at the "full reach," quickly straightens her wrists, "facing" the blades and making them perpendicular, then drops the blades into the water by a little motion of her straight arms upward from the shoulder joints, neatly covering the blades, and no more.

The backward swing follows without loss of a second; the arms and wrists are kept firmly straight, and the body weight is thrown on the oar. Until the body swing a little back of the perpendicular is finished, keep the oar just under the surface of the water, upright, the blade only covered with water. Then lower the arms from the shoulder joints a very little, lifting the blade out of the water, but do not bend the elbows; bend the hands back on the wrists, putting on the "feather." Swing the body forward, passing the oars over the water without touching it — to trip over the water is to "back-splash." Face the oar again during the latter part of the swing, ready to "catch" the water on the next stroke, and raise the arms a little on the swing to approach the water neatly. Repeat the backward and forward swings as above, with straight arms,

Fig. 112. — Raised shoulders and "dog's-eared" elbows.

Fig. 113. — "Leaving the head behind."

until confident of smoothness in the body and blade work. This is called "straight-arm" rowing, or rowing "without breaking." The great value of straight-arm rowing is to accustom the beginner to row with the back and not with the arms.

To row the second part of the stroke, called the "finish," swing the body from the forward reach back to the perpendicular position over the thwart; then by bending the elbows, drawing them well back past the sides and close to them, and the "breaking" of the arms on the "draw" brings the hands in to the body, the motion ending with the backward swing. The height of the hands on the body at the finish is determined by preserving the "spoonful" of water at the "finish" as well as on the "catch." The position of the wrists is determined by the correct perpendicular position of the blades at the finish, the hands never slipping on the oars. The purity of the body swing must not be disturbed by the "draw." The shoulders move perfectly smoothly in the arc of a circle, the "draw" being simply "shingled" on to the swing. If the oar is jerked or pulled hard to the body on the finish, not only is the body apt to "meet the oar" but the wrists are stiffened and a quick and graceful recover is spoiled.

The recovery now begins. Drop the hands and

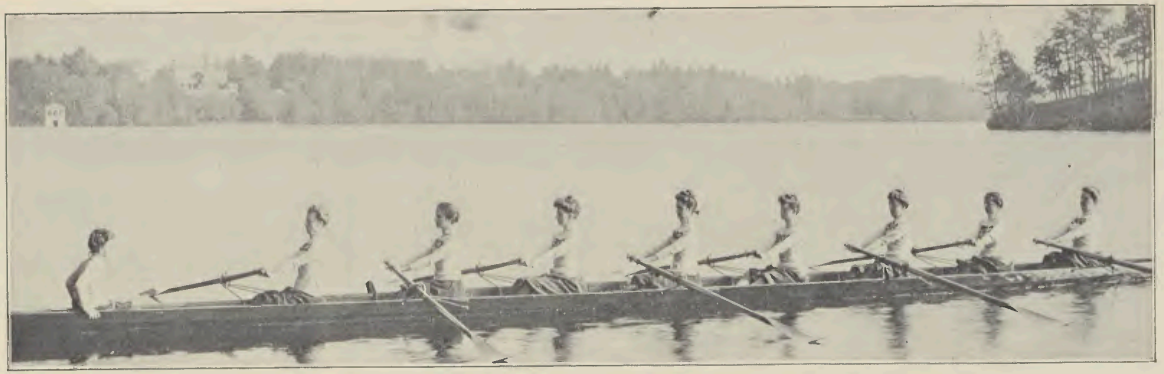


Fig. 114. — "Attention." Eight and coxswain in a barge, 1902 class crew.

Fig. 115. — Ready to row (fixed seat), 1902 class crew.

forearms smoothly down together, taking the oar lightly and squarely out of the water. Then bend the hands back on the wrists; this motion will feather the oars. Without moving the body extend the arms smartly forward and sufficiently downward to clear the blade well of the water. This combination of "drop," "feather," and "shoot" must be practised until very smooth and until they become one motion, forming the first part of the recovery. Now swing the body steadily forward, raising the arms slowly so the blade may approach the water, and raise the wrists gradually, taking off the feather ready for the next stroke.

Through both stroke and recovery press the buttons of the oars steadily outward against the rowlock. Accustom yourself to breathing freely on the stroke, and feeling that the slow forward swing is the resting place in the exercise. Practise the motions in the rhythm of "one-two-three" as soon as the analysis is mastered. To the backward swing and draw count "one"; to the shoot count "two," and to the forward swing count "three."

The most striking fault noticed constantly in girls' rowing is the use of the arms instead of the back as the muscular power, whereas the back furnishes the power and the arms are but the medium of applying that power; they are "ties" only between the shoulders and the oar. This error pre-

Fig. 116. — Ready to row (sliding seat), 1902 class crew.

vents the desired exercise of the waist, back, and abdominal muscles and is usually accompanied by a contracted instead of an expanded chest, by forward-raised instead of backward-lowered shoulders.

Another marked fault, called "rocking horse" and causing a deal of wasted energy, is burying the oar too deeply on the stroke and carrying it skyward on the recovery. The blade should only be neatly covered by the water during the stroke and only carried clear on the recovery.

Among the common faults seen in rowing are the following, which are illustrated in the two preceding pages: —

The "over-reach" — when the forward swing is not taken entirely from the hips and the back relaxes in any part, the shoulders dropping forward and twisted.

"Meeting the oar" — when the purity of the backward swing is interfered with by the pulling of the body forward at any point of the "draw."

"Tumbling over" — when the backward swing is continued too far back of the perpendicular.

Raised shoulders and "dog's-eared" elbows — caused by pulling hard on the "finish" and using the wrong muscles in getting the "drop."

"Leaving the head behind" — this occurs when on the "catch" the head is not carried in a line with the body.

GOLF

By FRANCES C. GRISCOM, Jr.

CHAPTER VIII

GOLF

THE best game for women is golf. What other game can a woman play that keeps her in the open air for hours at a time without overtaxing her strength? None that I can think of. Tennis is a splendid game — in its season — but is too violent for many women; then, it is limited to a few months of the year. The same is true with hockey, basket-ball, cricket, and most other games which a woman undertakes. Golf is played in spring, summer, autumn, and even during the winter, if one cares to defy the cold. It is only natural that the out-of-door life that a golfer leads should tend to make

Fig. 117. — An incorrect grip.

Fig. 118. — A firm and correct grip for driver.

her physically strong; and how this is shown! Let an outsider go to one of our woman's tournaments, and say if he or she has ever seen a more healthy and attractive-looking lot of women. There is another thing besides health that golf develops, which can be appreciated only by the players themselves, and this is the player's character. I have seen women play cards, croquet, and other games when they did not seem to think it absolutely necessary to — shall we say — adhere strictly to the rules? And in golf? I have played in almost all the large tournaments for seven years and have never yet seen a

Fig. 119. — Grip for approaching.

woman cheat. Not only does it make them more honorable, but it helps them in little ways. They learn to be cheerful losers, generous winners; and these things in themselves help to make them better women. There is no surer method of judging a person's character than to see the way he or she is affected by victory or defeat.

Fig. 120. — Stance for drive. Side view.

A great many golf enthusiasts say that golf can be played by any one. Perhaps this is so, but I do not think it is quite the case. In a recent address, Miss Annie Russell said, in speaking of acting, "An actor is born, then made." So it is with a golfer; for although it must be acknowledged that some persons seem born with a knack of playing games, no one can start out at once and be a good golfer.

Every one should start with a few lessons. To begin correctly is the most important thing of all.

Golf's great fascination is that no one ever feels that she knows how to play. One is always trying to perfect herself, and never succeeding, for the simple reason that her ideals are always advancing. That is golf. There are two distinct types of golfers: the brilliant, dashing type, and the slow, persevering kind. I think, in the end, the plodder will win three times out of five, but the brilliant player appeals to the gallery. There is a great deal in temperament. A tremendous advantage in golf is that strength is not necessarily an advantage. A young schoolboy, who has the knack of knowing "when and how" to hit the ball, can drive as far as the strongest man. In fact, some women can outdrive the average man. I have seen men over seventy years old play as well as the majority of the younger men. There is one case especially that I recall

Fig. 121. — Address for drive.

where, in a tournament in the South, one of the best western players was drawn against his father — a man nearly seventy years of age. Of course, the younger man had to give his father a handicap, — six strokes, — but he had great difficulty in defeating him. Do you know any other game where father, mother, daughter, and son can play together and all enjoy it?

Fig. 122. — Top of swing for drive.

When a woman starts to play golf, she naturally thinks of what she shall wear. There is no distinct golfing costume, but I should advise a short skirt, a shirt-waist that does not bind, and a sensible pair of shoes, large enough to be absolutely comfortable, and with very low heels. Some prefer tennis shoes with no heels at all. One must have rubber or hobnails on the soles to keep from slipping. It is a great aid in playing not to slip.

The next thought will naturally be, What am I to play with? There are innumerable clubs, each one having its own particular use, but to start with I should recommend five — the driver, the brassie, the cleek, the mashie, and putter. Perhaps some persons would advise replacing the brassie with a mid-iron, but at first I should suggest not using the latter. It must seem strange to a beginner to see so many clubs, but each one serves its purpose when properly used. The object of the driver is to gain the greatest distance possible; of the brassie, to gain the greatest distance out of a "lie" too bad to permit the use of the driver. The cleek is used when the distance is too short for a brassie, or when there is some obstacle in the way that necessitates a lofting shot. The mashie is used to get out of trouble, to play short shots, and to

Fig. 123. — Finish of drive.

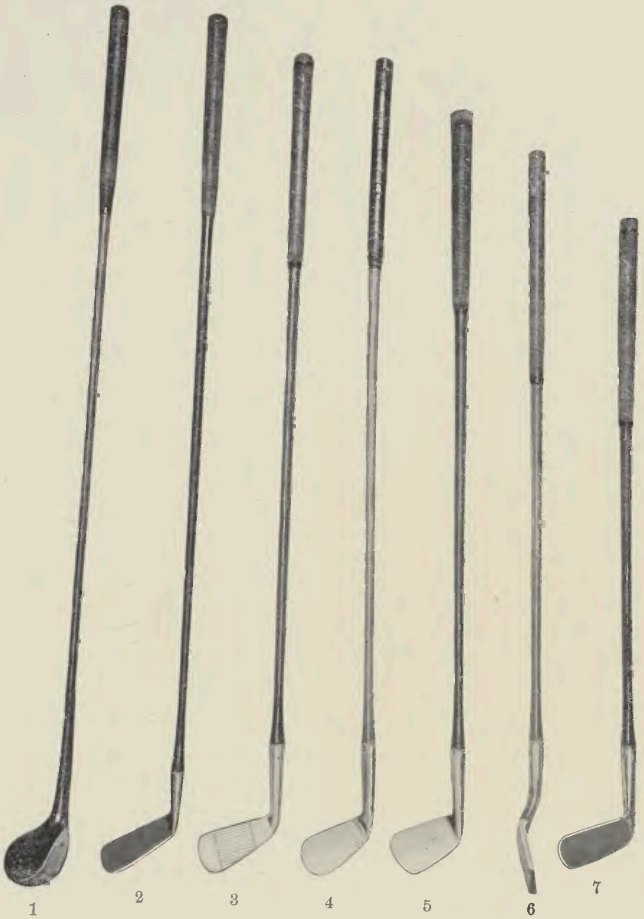


Fig. 124.

1. Driver.
2. Cleek.
3. Mid-iron.
4. Driving mashie.
5. Approaching mashie.
6. Goose-neck putter.
7. Putting cleek.

approach the green from short distances. The putter is used when on or almost on the green, to put the ball into the hole. This at first appears the easiest part of the game, but it is in reality the most difficult. "The person who can put can beat the world," as some Scotchman once remarked.

Fig. 125. — Top of swing. Cleek shot.

Like all games, there is a right and wrong way of playing every shot, and how important it is to begin in the right way! I know this to my sorrow, for I began wrong myself, and spent four years trying to unlearn (with only partial success) the faults I acquired in the first six months. No two persons play alike, but they all start with the same foundation. It reminds me of learning to write. All are given the same copy-book, and all peg away diligently until a little confidence is felt, and then each branches

out with a style quite her own. So it is with golf. After the rudiments are learned, it is a tremendous help to imitate some good player. Go out and watch a professional play, and then see if that does not help you. But I am getting on too quickly.

Fig. 126. — Finish of swing. Cleek shot.

When you have obtained your five clubs, — which, by the way, I should suggest having some golfer select, — you are quite ready to begin. Pick up your driver, and see how you take hold of it naturally. As a rule, the instinct of a woman is to hold it as she would a broom, with the hands far apart (Figure 117). Any one who has played base-ball or similar games will, without thinking, hold it correctly. The club should be gripped tightly with both hands, and in such a position that the wrists are able to work freely and together. This is most important, for if the

club is gripped tighter with one hand than with the other, it is impossible to play straight. After the grip is learned (Figures 118 and 119), swing the club back and forth, with wrists only, until you do so easily.

Fig. 127. — Top of swing. Mashie shot, 60–80 yards.

You are now ready for the next step, the "stance," or how to stand (Figure 120). I think the most important part of the stance is to be absolutely comfortable. Stand with the feet apart, so that you feel steady, and have your ball teed up in front of you so that you can reach it easily with your club. For the drive the ball should be a little nearer in a line with the left foot than the right, as shown in Figure 121. Now comes the difficult part of your "copy." In a full swing every part of your body does its share of work, though quite without your knowledge. The wrists are the first and most important thing to think of. You start and

finish the swing with their aid. Take the club back along the ground with the wrists and arms (keeping the body still) until the club begins to rise; then bend the left knee slightly, and that in itself will finish the back swing for you. When you reach the top of the swing, as shown in Figure 122, pause a second and then, with the wrists again, hit hard. If you go back correctly and start the down swing with the wrists, the "follow through" (Figure 123) will be irresistible. Most golfers say the follow through is the most essential part of the shot. So it is, but you could never follow through if you did not go back correctly.

Fig. 128. — Finish of swing. Mashie shot, 60–80 yards.

This may sound complicated to a beginner, but after the first few times one does it all unconsciously. It is so much easier "to do than to say" that really you have the best of the bargain. Now, do not expect to

hit the ball at first. That is never done; it would not be fair to the rest of us who have played for years. Just work away with the swing until it comes easily. You will never play while you feel awkward. When you begin to swing without much effort, then you may think of hitting the ball. When you have mastered the drive, the other shots come to you. Among the best women players the usual drive is about 150 yards, but the average woman drives about 120 yards. Of course, there are some women who drive 190 or 200 yards, but they are few and far between.

Fig. 129. — Top of swing. Short mashie approach.

The brassie you will play exactly as you did your driver, so there is nothing new to learn here.

The cleek is a club that American women, I am sorry to say, neglect, and yet it is most useful. The club is gripped in the same way as for the

drive, but the stance is somewhat different. Stand with the ball in front of you and midway between the feet, as in Figure 125. Most professionals will tell you to use a full swing in playing a cleek shot, but I think that as a woman is apt to overswing and lose control of her club, a three-quarter swing is better. By that I mean not taking the club back all the way, as in a drive. Never vary the length of your shot by your "follow through" (Figure 126). That is always the same. If you wish to shorten your shot, do it on the back swing. An average woman should gain 100 yards with a cleek, but, again, I have seen women make a cleek shot of 130 yards.

Fig. 130. — Finish of swing. Short mashie approach.

Next comes the mashie, the golfer's faithful friend. This club is used for more purposes than any other. In the first place it lofts the ball more

than any other. It picks it out of a lie where another club would be impossible, and with it one can make a ball drop almost still where it strikes. Some use a niblick or sand iron for getting out of trouble, but this is only an exaggerated mashie. I am afraid the beginner's first use for our friend the mashie, though I hope not, will be to get out of a bunker. This is one of its many uses. To use a mashie in a bunker, or to loft over some object directly in the way, stand with your right foot nearer the ball. Grip the club tightly in both hands, with the right thumb down the shaft as shown in Figures 131 and 132. Then lay your club well back, taking it up more directly, and bringing it straight down. This will give a loft to the ball. To play a full mashie shot, stand in the same way with the same grip, but take your club back along the ground with a three-quarter swing.

Fig. 131. — Top of stroke. Playing out of bunker.

For the short mashies — now we are coming to the part of the game where each shot tells — you stand in the same way, but grip differently. In playing these shots some put both thumbs down the shaft, but I should suggest only the right one at first. The short mashies are played with the wrists and arms, the body being bent as little as possible (Figures 127, 128, 129, and 130). There are two ways of playing these shots: a lofting shot, dropping the ball on the green if you can; or a running-up shot close to the ground. At first play the former way, as then you are not so likely to top your ball. To loft a short approach, again lay your club well back, taking it up more directly and bringing it straight down behind the ball. For the running-up shot, take your club back along the ground with the face turned in slightly; this

Fig. 132. — Finish of stroke. Playing out of bunker.

will give a run to the ball after it strikes the ground. This shot can also be made with a cleek or mid-iron.

In putting, the different styles are shown more clearly than in any other part of the game. Grip the putter tightly in both hands, putting a "follow" on your ball, and never look up until you have played your shot. A ball hit with a follow runs close to the ground and keeps its direction. Keep the hands well in front of the ball and turn the face of the club down. When you have putted in the hole, your object is accomplished (Figures 134 and 135).

Fig. 133. — Finish of full mid-iron shot.

Keep your eye on the ball always. I left this until now, because I was afraid that if I mentioned it casually with the other instructions, a beginner might not realize its importance. Ninety-nine per cent of the golfer's trouble comes from looking up to see

where he is going. Ben Sayers, the professional at North Berwick, once told me that it was a physical impossibility not to hit the ball if you kept your eye on it. As an example he told me the following: —

Fig. 134. — Putting stance.

Mr. M., a scratch player, came to him one day in utter despair, saying: —

"Sayers, I don't know what I am doing, but I topped every shot this morning, and I can't find out why."

Sayers looked at him for a moment, smiled and said: —

"Is that so, Mr. M.? Well, come out here for a moment."

He put a ball down, saying, "Mr. M., I will give you a box of balls if you can top that ball."

Mr. M. took his driver and, because he tried to top, kept his eye on the ball and made a beautiful shot.

After you have played enough golf to catch the

fever and love it, you will become inspired with an ambition to know it all. Now is your time to attempt the mid-iron. This club, as to distance, should come between the cleek and mashie. It is used principally for long approaches, although, as

Fig. 135. — Putting. Side view after the ball is played.

said before, it is often employed for running up short ones. A full iron shot (Figure 133) is one of the prettiest, but is very difficult. The grip and the stance are the same as for the long mashie, and here again a three-quarter swing should be used. I have noticed that almost invariably men play

their long iron shots with much more accuracy than women. You will find that a woman, if she possibly can, will substitute a brassie for a cleek. The reason for this is that with a wooden club one does not have to hit the ball absolutely clean to make the shot. You can shlaff a ball — *i.e.* hit the ground behind it — with a wooden club, and if your swing is well started, the shot will come off with partial success. Now if a woman does not hit her ball absolutely clean with an iron club, her shot is ruined. A man's wrists are so strong that he can purposely hit two inches back of the ball, and take turf with it without impairing the shot.

In concluding I will give a few Don'ts that are always useful. Don't press (try too hard); don't hurry; don't get discouraged; don't lose your temper; don't be too ambitious at first; and don't, above all things, take your eye off the ball.

RUNNING

By HERBERT H. HOLTON

CHAPTER IX

RUNNING

RUNNING being the principle or groundwork to help in getting proper fitness of condition for all branches of athletics, it is essential that it be taught properly, as to duration, form, and speed. No matter what kind of exercise be taken up, or what particular game or sport be followed, running is a part of the training. Short and fast or long and slow runs are required to help train one's self for greater ability or excellence in the branch of sport to be followed.

For girls, especially, it is a good form of exercise, requiring as it does, not only the use of the muscles of legs, but also the use of the body and arms for strengthening purposes. In running, as in all things, the teacher has an object in view for the pupil. Grace in form should be the objective point, instead of strenuous endeavor and its enervating effect; and, to further the good results to be obtained by training, it is much more natural and womanly that grace of form be aimed at

rather than speed and "records." In striving for records the thought and manner must necessarily become manly; and grace, that natural condition for which woman stands, be lost in an effort not naturally a woman's. The effect of the training on women who try for records is to make them sluggish, and this will be most noticed when the work is overdone. Drawn features and a white complexion will also be noticed, besides a muscular manner and appearance. Thus the point of view which aims at an increased general health and strength must necessarily become lost.

Too much cannot be said upon the fact that the work for women should be done outdoors, and free from the confines of dead air. And good results will not come from work done on indoor tracks of gymnasiums, especially if the gymnasium be not properly ventilated. A gymnasium cannot replace the values and healthfulness of open air. In fact, the best results come from games played and physical work done outdoors, and free from the gymnasium. But I would draw attention to the advantages of the gymnasium for *specific* and *corrective* purposes for women, as well as for men. Fresh air acts as a tonic to the bodily wants, and it will be found that with exercise, fresh air will help build up a weak person,

and take away superfluous flesh from a heavy person, thus bringing about what the natural physical condition should be. One cannot help noticing, as a result of proper training, that strength of poise and healthful bloom of the face come to the one who has been weak in poise and pallid in feature, a condition due to too many afternoon tea-parties, heavy dinners, dances, and theatres. Especially noticeable is this in women's colleges, where the pupil is confined indoors by much study.

It is true that the work may be overdone, but it is the duty of a beginner to take the advice of intelligent and competent instructors. To a girl's college in a modified sense, as to a man's college, with his superior knowledge of athletics, the competent instructor becomes invaluable. An instructor should be employed also wherever possible by teams in preparatory schools, where great care should be taken to adapt work to the strength and age of growing children. The serious and common fault of games and exercises pursued for their own sakes, rather than as a means to an end, will then be properly governed.

By a knowledge of her physique a beginner may think it probable that she will never be able to break herself of the unpicturesque waddle, so common among women when running. But conscien-

tious work on her part will prove that grace of form and ease of step will come by bearing in mind and putting into practice a few rules as to the proper style in running. First, that the controlling power should be the mind, and the centre controlled, the trunk of the body, the arms and legs acting as appendages. The arms should be dropped down straight from the shoulders, with an apparent stiffness from the shoulder to the elbow, the remainder of the arm free in its use. By the thought of suspension on the arms, the carriage will thus be benefited. The action of the leg should be free, with a slight forward hip movement with each step, and particular stress should be placed on a high knee action.

With the movement of the right arm forward, the left leg should be lifted, and vice versa with the left arm and right leg. The strides should be so taken that upon the alighting of the toes, it is apparent to the runner that she is running on a straight line. Assuming that two girls running take the same length of stride, it will be easily noticed that the one stepping well forward and on a straight line is running easier and covering ground quicker than the one placing her feet to the right or left of a straight path or running zigzag.

Phonetic running, that is to say the allowing of the beat of one runner's stride to cause another runner to adopt the same length of stride and time, should be guarded against, for the value of the work in lengthening the stride will be lost in games of competition, if the competitor be led by the sound and stride of one who takes a shorter and slower stride than herself. This is a common fault of beginners and will also seriously affect natural individual grace.

The main thought in mind should always be that the body apparently is carrying the legs and is suspended on the arms. This will help the beginner to be light in step, and cause greater freedom from heaviness of bodily action. There is no exercise more delightful than to feel one's self running freely, and a short run after other bodily exercises will soon become enjoyable to the point of invigoration.

For proper general strengthening purposes, it is absolutely necessary that preliminary work be done by the arms and body, known as a "setting up drill." This should be taken for an average of twenty minutes, alternating longer and shorter on different days, and be light. Dumb-bell drills are especially beneficial and recommended for girls, although light chest-weight work and exercises of a similar character may be taken. An

athlete's work in any direction while in training should leave her or him refreshed after it is over.

A track in school or college is absolutely necessary, as it is used by the athlete no matter what branch of sport be followed. During the winter months, a board track outdoors should form part of the equipment of a well-planned gymnasium. Raised corners on both tracks are valuable to the extent of giving freer action of leg motion in turning, and so allowing the stride to remain the same.

Before taking up running, the athlete should be examined by a physician; and while it is true that some physicians are opposed to running, owing to its possible bad effect on the heart, it is generally admitted by medical men of good standing that, under proper supervision, running strengthens the heart and lungs.

Special attention should be given by women to proper footwear and clothing in running. The use of high-heeled shoes of any description should be absolutely discarded. The shoe recommended is the low-cut shoe with a spring heel and felt or light leather sole. At Wellesley I have coached the students with the regular spiked shoe in their track work, as it insures greater firmness and surety of footing. For board tracks the shorter spiked shoe is recommended, and this glove-fitting

shoe should be made use of while on the track only. Due consideration should be given the footwear in other branches of sport also. The clothing should be light, and the underwear free from binding appliances, and round garters and tight belts should not be worn. Bad health is frequently conditioned from errors in diet, and the athlete in training should procure advice on this subject.

Regularity in practice is the one and only way in which a gain of strength and ability will be noticed, and a most harmful effect is to be expected for the athlete who comes out irregularly and overdoes at that time, thinking that the past work may be made up.

A training season for girls' colleges, wherein making the track team is the objective point, should consist of a preparatory season of about eight weeks, with work about three days a week. This allows the intervening day for growing and strength-building conditions.

In running, as in any branch of sport, no fear should be taken of the stiffness and soreness following the starting of work; the remedial prescription for such a condition being more work, when it will be seen that the "fever," so called, passes away.

Variableness of exercises in lesser amount or more, around the distance the athlete desires to

run, is the keynote to success in making the best effort at that distance.

While the advantages of physical exercise are well known, it is not proportionate with our other daily work. One may begin seriously to work for a more generally healthy condition and soon become tired of it from the fact that the effort has become work. The thing needed is to treat this work as a game, and with the thought of proficiency and interest in the game the "work" aspect will thus become lost, but the gain nevertheless made. Competition in games becomes thus advantageous as a means to an end. Games should be taught, especially to girls, on this basis, — the game of itself being the recreative and stimulating part, — the work part being properly overlooked by the instructor, and governed for the physical gain.

With the knowledge of increased ability and strength will come a pleasant sense of greater strength and confidence to any one enjoying athletic sports. The athletic girl should be judged in part, at least, by the moral effects resulting from the athletic training in running, — to these are due in large part her disciplined carriage and manner, which must command respect even from those who argue against her.

LAWN TENNIS

By J. PARMLEY PARET

CHAPTER X

LAWN TENNIS

In her excellent article on her favorite game Miss Griscom has declared that the best game for women is golf, and I think she is right, perhaps, if we include all women in her category. But for the young and energetic woman, lawn tennis has many advantages that are lacking in the old Scotch game.

The very essence of golf is to train players to curb their impetuosity, to stand still as they play, to walk slowly, and to be deliberate in all their actions. It is too slow for young people, and the quicker action of tennis has more charms. Here the best form teaches us to move as we strike, and to strike out freely; never to stand still. The same is the very opposite of golf in many of its features and is one that must necessarily appeal with more force to the younger generation. The best golfers are nearly all mature women; the best tennis players are all young girls, so the two pastimes need not clash — they appeal to different members of the sex.

The training of lawn tennis is all for the good of its players, morally, mentally, and physically, and the only pitfall to be guarded against is that of over-indulgence. The game is a severe one and calls for strenuous effort at all times. Especially in the extreme heat of a midsummer day care should be taken that enthusiasm does not lead the player on to too much exertion, as might easily happen, with disastrous results. But given a sound body and healthy constitution, tennis is the best kind of physical training. It exercises the muscles, develops the lungs and the heart, and trains the eye and the mind to think fast and to see accurately under the stress of excitement. And, best of all, the game has an atmosphere of good sportsmanship that gives its devotees the best ideas of honor, of respect for

Fig. 136. — Correct grip for forehand stroke.

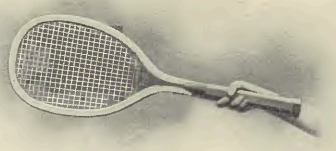


Fig. 137. — Incorrect grip for forehand stroke.

the opponent, of the kind of honesty that comes from scoring fairly, and deciding whether balls are in or out of court.

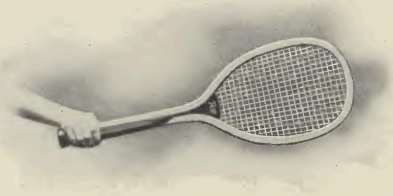


Fig. 138. — Correct grip for backhand stroke.

Like golf, lawn tennis takes its players out into the open air and keeps them active there, breathing fast and deep, and exercising in a way that brings the ruddy glow of good health into the cheeks. The surroundings of the game are all of the best. There is a total absence of professionalism, or of playing before spectators who have paid for the right to see one play, and therefore have unrestrained liberty in their comments.

Fig. 139. — Incorrect grip for backhand stroke.

As to costume, looseness is the first and most important particular. The waist should not fit too tight, and it should be particularly free at the elbows and

shoulders. The skirt should be short and stiff enough not to get in the way of the knees or to bend so much around them as to bind or interfere with the player when she is making a stroke or running to reach the ball. The shoes should fit the feet snugly, and not allow them to slip around inside. Many players wear low canvas slippers with rubber soles, and find them more comfortable and less tiring than leather-bound shoes. It is well to wear thick stockings even in summer, so that the toes will be protected from the shoes, for sore feet or blistered toes will work more damage and handicap a lawn-tennis player more than any other ailment of this kind.

"Common-sense" dress is always appropriate for sports and doubly so for tennis. One of the very best women players in America carries this to such an extreme that she has all her clothes made so that they hang from the shoulders instead of the hips. She thinks, and rightly, that this gives her more freedom in running about the court and gives greater ease around the waist. This player also braids her hair down her back, whenever she plays; however, this is by no means necessary for comfort, and certainly is not ornamental to most women. Gloves should not be worn for lawn tennis, for they prevent the best grip of the racket

and always interfere with the delicacy of the stroke. It is better to practise a little at a time without a glove until the skin becomes hard enough not to blister. If one overdoes at first, or at the beginning of any season, blisters may form that will make the hands sore for weeks.

Fig. 140. — Start of forehand stroke.

The selection of a racket is not a difficult task, but a word from an experienced player may be useful. The cheapest is never the best, and if one wants to learn the game well, she might as well begin with good tools. The best rackets last very much longer than the cheap ones, and are well worth the difference. Care should be taken not to get too heavy a racket, for it seems easy enough to swing one of fourteen ounces in the store and for the first few times it is played with, but after an hour or two of play, that extra ounce will make a wonderful difference in the effort required to make a stroke. For most women, thirteen ounces

is heavy enough, but for one who is strong in the wrists and forearm, half an ounce heavier will probably not be too much.

Fig. 141. — Half-completed forehand stroke.

The grip of the racket is the first step in the kindergarten for novices. It is essential that the racket should be properly held, and a wrong grip ruins many otherwise good strokes. The racket should be held at its extreme end, so that the edge of the hand comes just to the end of the handle. The first finger should never under any circumstances be put up along the handle as a brace, but in making backhand strokes the thumb should be used on the handle to help to guide the stroke. The racket should always be held tightly; a loose grasp is one of the worst faults that a young player can acquire. It should be held so that the nails of the fingers face ahead in the direction the ball is to be driven. For the backhand strokes the middle knuckles of the fingers face ahead, and

the thumb slides up behind the handle to guide and steady the racket.

A most important point that is not generally appreciated by young players, and by some old ones, too, is the proper way to stand in receiving a ball. Many players contract a habit while waiting for a ball of standing square around with the feet both pointing in the direction from which the ball is expected, but this does not give the player the full control of the balance, and it is specially important that she should stand diagonally toward the ball and bend over forward to get into motion sooner. With the feet set diagonally and the body half turned and bent well forward, the player has such perfect control of the weight that she can start in any direction quickly. For all strokes, the weight should be thrown well forward in striking, to use as much as possible of the body's momentum.

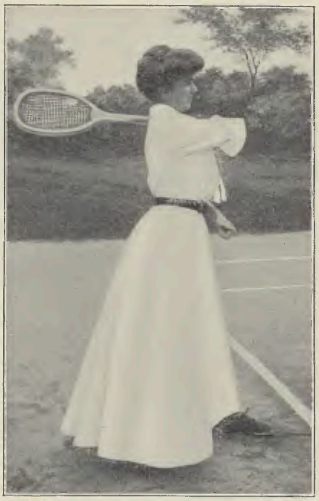


Fig. 142. — Finish of forehand stroke.

Like all other games of skill, lawn tennis requires

some coaching from an experienced player, before the novice can expect to start in the right way. The game can easily be learned without professional instruction, but there are many minor points that the beginner should know before she tries to pick it up alone. I do not know of a better method of taking first lessons than by practising in front of a blank wall, knocking a ball against the wall as it rebounds, trying each time to hit the ball with a freer motion. Many expert players use this method of practice to keep them in form, long after they have acquired tournament skill, and personally I find it the very best method-getting in the spring-time.

For the forehand stroke, which is the most common play used in all games, the racket should be drawn back well behind the right shoulder and swung forward sharply as the ball approaches, the weight being thrown into the blow as the racket meets the ball, and the stroke finished with racket well up over the left shoulder and behind. Some women who play this forehand stroke with exceptional skill finish the stroke with the racket higher up than does Miss Banks, whose final position is illustrated, and this style of making the stroke is apt to make the ball drop more in its flight, because of the sharp twisting

motion that the ball takes from the rapidly swinging racket.

For backhand play the stroke is very nearly reversed. The racket starts with the arm well back of the head and left shoulder and swings in the opposite direction from a forehand stroke, striking the ball a sharp blow and finishing well out to the right and above the shoulder. The player should face around toward the side on which the ball is coming, so that the swing and motion shall be thoroughly free. For this reason the right foot should be well forward in making the backhand stroke, and the left foot when a forehand stroke is to be made. If either of these rules is disobeyed, the stroke will be poorly made, for with the feet the other way, or placed square around toward the ball, it is impossible to control the balance of the body.

Fig. 143. — Start of backhand stroke.

Perhaps the most important point for all young players to grasp is the necessity of leaning forward

as the stroke is made and of "throwing the weight at the ball," as some one expressed it. It is not the actual strength put in any stroke that makes the ball travel fast, but the amount of momentum or weight from the body that is put into the stroke. Just as the ball is struck, while it is still in contact with the stringing, the racket should be drawn slightly upward, and this dragging motion gives the ball a tendency to drop a little in its course after it has crossed the net.

Fig. 144. — Half-completed backhand stroke.

It is important in making all of these strokes that the racket should be kept well away from the body, and nothing will spoil a stroke more quickly than a tendency to have the elbow in close to the body. The entire success of the play depends on the long, free sweep of the racket with the perfect freedom of the arm. A well-known English expert used to declare that whenever he was playing badly he knew he was too close to the ball, and his first

effort to improve his play was always to get away from the ball farther and free his elbow away from his side.

As the ball comes toward the player, too, she should never be met standing still. It is better to step away, so that you must take a step forward to meet it just as you strike. The purpose of this is to get the full force of the weight into the stroke by leaning forward to make a step just as you strike. Some players exaggerate this feature of their play so much that they seem to be fairly jumping at the ball.

Fig. 145. — Finish of backhand stroke.

Volleying is a tactical blunder for women in singles, and the lob is a very much more important stroke for women to learn. Women find it doubly difficult to volley, both because of the formation of the shoulder, which has always hindered them in throwing a ball overhand, and because of their dress. To volley, one must go up close by the net, and this

position is quite unsafe for a woman player, for her opponent can easily lob the ball over her head. It is a perfect defence against any kind of attack to lob accurately, and so a woman who is anxious to play well cannot do better

Fig. 146. — Overhand service. Start.

Fig. 147. — Overhand service. Finish.

than to perfect her defence first with this stroke.

There are several kinds of service that are used by women with success. The straight overhand delivery much like that used by the men, although not so severe, is generally thought to be the most effective, and it is the most often used by good women players. The body should be thrown well

back as the ball is thrown up for this stroke, and the player should lunge forward to meet it as the blow is struck, lending the impetus of the body's weight to the force of the stroke. It is important that the second service should be made in much the same style as the first, for to change the style materially works against the accuracy of the stroke and lessens its chances of scoring.

Fig. 148. — Underhand service. Start.

The underhand twist service is also very useful against women, and many women players make good use of it. In making this the ball is dropped from the left hand instead of being tossed up into the air to be struck, and it is hit at the height of the knee with a sharp, glancing blow. The racket finishes over the left in much the same way as in the ending of the forehand stroke. Against the sun, when it is blinding to look up for an overhand service, this underhand twist is particularly useful,

and its erratic bound makes it always difficult to handle, so that it often serves the purpose better than a straight overhand delivery.

Fig. 149. — Underhand service. Finish.

In all lawn-tennis strokes it is well to remember that any side motion in the swing of the racket hurts the stroke, and so far as it is possible, the racket should always travel in the direction that the ball is to be driven. The more the racket is kept in this line, and the greater the "follow through," as the golfers call it, both with the body and the racket, the greater will be the speed of the stroke and the accuracy of the play. Except for the slight dragging motion at the end of the stroke, that twists the ball and helps to make it drop after crossing the net, the racket should be made to follow after the ball when it is hit, and the strings to keep in contact with it, as long as possible. It is a well-known fact that the longer the barrel of a rifle, the more accurately will it

shoot, for the bullet is guided longer before being thrown into the air. The same principle applies to lawn tennis, and it should be kept in mind in making strokes.

After every stroke a player should return to the middle of the base-line, for this is the position from which the court can best be covered. Sometimes a fast stroke will force one far outside of the court, and then a lob may be the only method by which one can gain time enough to get back again into position. If a player is badly out of position, an ordinary drive may reach an opponent soon enough to let her place the ball on the opposite side of the court before the other can get there, and in that case a lob will delay the return long enough to prevent the point being gained in this way. It is a fatal error to stand still after making a stroke to watch the result of it. Once the ball has been hit, nothing one will do will affect its flight, and the next thing on

Fig. 150. — Incorrect position for receiving the ball.

the programme is to get back into position for the next play.

It is in such points as these, elementary in themselves, that the skill of the expert player lies. They seem simple enough, but they are much more important than appears on the surface. If a beginner who desires to learn the game will keep in mind the points I have emphasized here, it will prove a decided help to her. It is very easy to get discouraged, and make little progress in this state. It is well to remember at such times, that it takes many days, weeks, months, even years to learn to play tennis well, — very much longer than to learn golf or most other sports. Steady, persistent practice, however, will work wonders, and one will never know how much she can learn until she has really persevered in trying.

Fig. 151. — Correct position for receiving the ball.

FIELD HOCKEY

By CONSTANCE M. K. APPLEBEE

CHAPTER XI

FIELD HOCKEY

Though the fame of English field hockey had from time to time been wafted over the Atlantic, resulting in a few spasmodic efforts to play it, it was not until 1901 that the game was definitely started over here. That autumn the colleges of Bryn Mawr, Radcliffe, Smith, Wellesley, and Vassar all started permanent hockey clubs; so much interest did the game arouse that in one college alone five hundred girls signed the agreement to play, and among them were found not only the already athletic but, to quote the words of one of the captains, "Even our worst grinds have caught the fever and are turning out to play." This is one of the advantages of hockey, — that while giving vigorous exercise to those in need of it, from the different work required in the various parts of the field, it can take in all types of players.

Now in many field and golf clubs, and in most of the leading preparatory schools, the game is being taken up, and the autumn of 1902 saw some very interesting matches.

Field hockey has been popular in England since about 1885.

Women soon joined in the game; and mixed clubs and women's clubs were started in London, and a few local matches played.

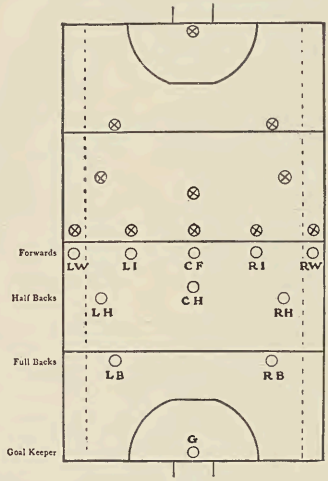


Fig. 152.—Position of players.

But hockey was to be a great pioneer game for women, and began to claim as wide an interest as it does with polo, cricket, and football for men. The All England Woman's Hockey Association was started, county matches arranged, followed in 1895 by national matches, which are now held annually between the English, Welsh, Irish, and Scotch men's and women's elevens. This year the Dutch women challenged England, and two matches were played in Holland.

On the Continent the game is spreading rapidly, most of the towns having mixed clubs.

THE FIELD

The game is played on an open field one hundred yards in length by not less than fifty, and not

more than sixty, yards in breadth. This space is marked off by white lines, the longer being called the "touch-lines," the shorter the "goal-lines." Across the field are marked the "centre line" and the "twenty-five-yard lines." At each corner and at the twenty-five-yard lines are placed flags. In the middle of each goal-line is the goal. This consists of two uprights firmly embedded in the ground, seven feet in height, and twelve feet apart, with a cross-bar at the top. Most clubs have nets behind the goal, but these are not actually necessary. In front of each goal, and fifteen yards from it, is drawn a straight line, the ends of which are curved till they reach the goal-lines, forming a semi-circle with a radius of fifteen yards; this is called the "striking" circle. The ground should be level, well rolled, and the grass short. The better its condition, the more accurate and skilful can be the play.

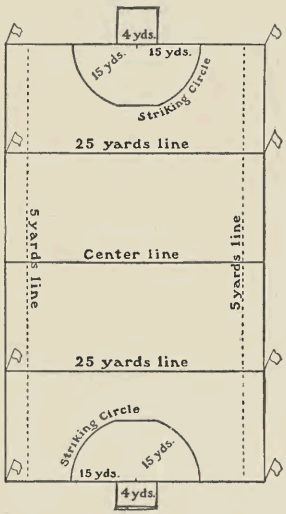


Fig. 153. — Plan of field.

APPARATUS AND DRESS

The outfit is neither elaborate nor expensive. The flags and goal-posts any groundsman can make and erect. Flags should be made in the club colors, fastened to sticks about three feet in height. The goal-posts must be fairly substantial, square, but with the edges shaved to prevent splintering. The balls are ordinary cricket-balls painted white. Two balls will last one or two seasons if kept freshly painted. This is all the necessary club outfit.

Fig. 154. — The "bully off." First position.

Each player should possess her own stick, for it is surprising how soon a hockey stick winds itself into one's affections, and the difficulty with which one handles a strange one. The chief points in choosing a stick are balance, weight, and spring.

Regulation American Field Hockey Association sticks and balls, made from an English pattern,

have been brought out by Messrs. Wright and Ditson, Boston. They come in two qualities, — "No. 00," ash blade, with rattan cane handle; "No. 0," ash blade and handle. The former are the most satisfactory, the lightness of the cane handle giving the correct balance, the weight coming in the blade, *i.e.* behind the ball, also the spring of the cane sending a clean, driving stroke without much effort or jar to the hands, which is felt with the wooden sticks. The maximum weight for girls is nineteen to twenty-one ounces for "Forwards," twenty to twenty-two ounces for "Halves," twenty-three to twenty-six for "Full-backs and Goal." For a beginner twenty-one ounces is a useful weight; with this she can learn to play in every part of the field. Every club must have its distinguishing colors carried out in the regulation "hockey costume," which members should be re-

Fig. 155. — The "bully off." Second position.

quested to wear at all practices and matches. The game cannot be safely or well played in ordinary dress. When will women learn the importance of these small details of "Athletics!" Men in the English hockey clubs, as a matter of course, don their club suit, correct cap-a-pie, but how often the women think "anything will do," and cheerfully play holding up a train in one hand, feebly wielding the stick with the other, and, with our proverbial logic, trusting that the stiffness, colds, and exhaustion that follow in the wake of the would-be athlete who ignores the importance of "dress" will, somehow, escape them.

Fig. 156. — "Sticks!" before the stroke.

The hockey skirt should be plainly made, and as Rule VII. reads, "six inches from the ground all the way round." The shirt-waist, made of flannel, to prevent risk of chills, should be loose fitting. This does not necessitate an ill-fitting garment or untidiness. Petticoats should not be worn, but

knickerbockers of the same material as the skirt, fastening at the knee, be substituted. The club colors are best carried out in the entire suit; one club, perhaps, having white shirt-waists, green skirts, ties, and tam-o'-shanters; another, red shirt-waists, black skirts, and ties, and belts, etc. Foot wear depends on the whim of the player; some prefer the support of boots, others the lightness of tennis shoes. Full-backs and goal, in that they use their feet so much to stop the ball, are better in boots and also wearing shin guards. Bars or studs on the soles will prevent slipping on wet or frosty ground.

Fig. 157. — "Sticks!" Breaking of Rule 14 after the stroke.

THE GAME

The game is played by twenty-two players, eleven on each side, five forwards, three half-backs, two full-backs, and a goal-keeper.

The "Centre Forward" stands in the middle of the ground, facing her opponent's goal, through

which her side will try to drive the ball. On her right, about ten yards distant, stands her "Right Inside" man; near the touch-line stands the "Right Wing." On her left also, in line with her, stand "Left Inside" and "Left Wing." About twelve yards behind the "Forwards" stand the "Half-backs." "Centre Half" covering her "Centre Forward," "Right and Left Half" equally covering their inside and wing men.

Fig. 158. — "The mow" (beginning of stroke).

On the twenty-five-yard line stand the "Full-backs." Inside the striking circle, a yard in front of the goal, stands the goal-keeper.

The ball is placed in the centre of the ground by the umpire, and is put into play by the opposing centre forwards taking a "bully off." This is done as follows: The two players stand facing each other, left shoulder to their opponent's goal. Each then taps the ground on her right and her opponent's stick above the ball three times, then

Fig. 159. — Centre half overtaking and tackling. Centre forward prevents pass to inside right.

both close on the ball, the quicker hitting it off to one of her "inside men." All five forwards, followed by their half-backs, then start for the goal, keeping in line with the ball, which the "inside" is dribbling (*i.e.* taking it down the field by a series of short taps, keeping it close to her). This brings the opposing half on her, when, zip! the ball is shot swiftly to the wing, who has been watching for the pass and who quickly makes for the goal with it. On nearing the twenty-five-yard flag, since the goal is in the centre of the goal-line, "Centre hard!" the captain will cry, and the wing with a sharp stroke drives the ball into the striking circle, where the centre and inside forwards receive it and concentrate their efforts on "shooting a goal." The goal-keeper with the full-backs, who have come back to help her, valiantly defend their goal and endeavor to pass the ball to their own forwards, who are waiting outside the circle for it.

All this in theory sounds a simple matter, but on the field, with eleven players working in skilful combination against eleven others, many are the checks and counterchecks, the passing and repassing, before the ball can be worked through the enemy's forwards and halves into the circle, and even then, when a quick shot at the goal makes

victory seem most certain, that indefatigable goal-keeper stops the ball with her foot, and before the forward can rush up for a second hit out of the circle it spins, perhaps to be returned by a watchful half, but just as likely to be captured and borne triumphantly down the field by the opposing forwards.

Fig. 160. — "The mow" (finish of stroke).

In fact, the great charm of hockey lies in the endless variety and never ending amount there is to learn about it. No two games seem exactly alike, and every step one advances reveals others ahead. There are four ways in which beginners must learn hockey. First, by the actual practice of the game itself — this should be done under a good coach. First-class hockey cannot be "picked up"; it must be taught on the field by an expert, who, by keeping the players in their relative positions and the play open, can give them at once the keynote to scientific team-work. Without this

oversight novices scramble together after the ball, at which they hit excitedly and senselessly, the captains wildly shout a few hurried directions, — which, even if listened to, are not comprehended in the confusion, — and, as the players get into better training and run faster, each practice will be a greater scuffle than the last. If, by good luck, any of the members chance to visit another hockey club and see "the real thing," it may occur to them what a pointless scrimmage their so-called hockey is, and then may follow some coaching — poor coach and poor team! Endless will be the undoing of faults which, if a right start had been made, would never have been acquired. Secondly comes the study of the rules. Field hockey, without these rules, is not field hockey; and many will be the defeats of the club whose members from careless neglect of the rules have penalties awarded against them in their matches. As copies of the rules can be had in Spaulding's Athletic Library, under the title "English Field Hockey for Men and Women," it is not necessary to print them here. Suffice to say that the rules eliminate all danger from the game.

Rule XIV. provides that "no player shall raise the stick higher than the shoulder." This entirely prevents any one getting hit with the sticks.

Fig. 161. — Centre forward shooting for goal from edge of circle.

Rule XIII. — There shall be no play with the back of the stick, *i.e.* on the left of the player. This keeps every one's stick on the right and makes hits across the shins impossible.

Also "A player may not push or run into, or use his body to obstruct his opponent." The penalty for breaking these rules is a "free hit" for the opposite side on the spot where the offence is committed.

Fig. 162. — Stopping the ball. Incorrect.

These written rules, with the unwritten laws of etiquette of the field, class hockey, with polo, fencing, and tennis, among the finest of sports as a scientific game in which skill meets skill in open, courteous play.

Thirdly, there is the individual practice of certain strokes, — stopping the ball, dribbling, receiving and returning a pass.

At first the hockey stroke is difficult to acquire, the impulse being to swing the stick high with all the force of the arm and trunk muscles, and to

bring it down violently, and hit, or generally miss, the ball, continuing the swing high on the left. Legion will be the umpire's whistles for "sticks" before this is overcome. Every hit must be quick, accurate in aim, and well judged as to distance, and, since mostly made on the run, with as little waste of movement as possible; for this "the mow" and the wrist stroke are best. The mow requires a little practice. The body is swung round to the right, the right shoulder well back, left heel raised, the stick firmly held in both hands and turned with its face slightly backward; the body is then swung rapidly to the left, bending forward; when the stick meets the ball both heels are well raised. After the ball has been struck, the stick continues in its swing, the body resting on the left foot, the face of the stick turned slightly down. From start to finish the eyes must be kept on the ball. For short distances, as a pass from an inside

Fig. 163. — Stopping the ball. Correct.

to centre forward, a sharp hit from the wrists only is sufficient.

When these are learned the next step is to be accurate in placing the ball and judging the distance it will travel, to be able to catch it on the stick or stop it with the foot. *The skirt must never be used for stopping.* Ground balls should be trapped under the sole of the foot and air balls caught with hand or stick.

Fig. 164. — Back-handed or left-handed play. Illegal.

In receiving too short a pass from the left, care must be taken not to use the back of the stick, and so incur the penalty of "back-handed play." The stick must be turned over — face toward the body; the ball can then be brought with a gentle tap over to the right side and hit off, or, if the enemy is approaching, with a strong wrist movement caught on the travel and passed on to one's neighbor in front of one's body, or with a sharp turn passed between the feet.

Fourthly comes the study of the science of the game. The twofold object must be ever in mind, — the scoring of goals and the preventing of the enemy's scoring. To accomplish this successfully, the eleven must work as one man, each on the alert to do her own work to the full, and equally clever to see when her neighbor's chance is better than hers. One player shirking, or breaking up the combination by dashing out of her place, will spoil the tactics of the entire team, or one, however brilliant, who refuses to rely on her allies and selfishly keeps the ball, trying to play her own game, merely finds herself outdone again and again by the combined efforts of the enemy. Secondly, a team only wrapped up in its own plans for scoring goals, ignoring the wiles and traps of the enemy, will soon find itself running blindfold into defeat.

From this short description of the game, it will be seen that the work of the forwards is simply attacking; they are responsible for taking the ball down the field and getting it through their enemy's goal. The essence of their work is combination, the quick runners; the pace of one must be the pace of all; one "forward" rushing down ahead of her line out of touch with the others is useless. They must be quick to realize the position of the enemy and neat in dodging them. Centre forward

Fig. 165. — Match between England and Wales, 1901. Welsh half-back intercepting a pass between English forwards.

is the pivot round which the others work ; to keep the game open, she must always feed the wings ; in the circle be a "dead shot" for goals. The inside forwards must be quick, useful players, ready to help either centre or wing ; in the circle their opportunities for goal shooting are legion. The wing players must be masters of the art of dribbling, strong and accurate in their passes. When once the forward line loses the ball they must be careful to keep in the wake of the half-backs, ready to receive the ball the minute the enemy is robbed of it. Half-backs must be sound of wind and limb, for, what with attack and defence, they are hard worked from beginning to end. When their own forwards have the ball, they must follow ready to back them up, on reaching the circle be on the alert to return it, possibly even shoot a goal when it is driven out by the defenders. If, on the

Fig. 166. — Back-handed or left-handed play. Legal.

contrary, their opposing forwards have the ball, their work is chiefly defensive, and by intercepting passes and breaking up dribbling endeavor to get possession of it. The full-backs' work is entirely defensive. They must mark the oncoming forwards and try to prevent their getting beyond the twenty-five-yard line and into the striking circle; if passed, drop back quickly to help the goal-keepers in clearing the circle.

The goal-keeper is, perhaps, the most important individual on the field; though not of necessity a quick runner, she must be quick with her hands and feet and stick in stopping, kicking (she is the only one so privileged), and hitting the ball.

Well may English women regard hockey as the king of games.

From the number of players required, and being suitable for all ages, it is essentially a social game. It gives a maximum of exercise in a minimum of time.

From the physical and psychological standpoint it is unequalled, giving to all vigor, mental alertness, pluck, and unselfishness, those determining factors in a happy, successful life.

BASKET-BALL

By ELLEN BERNARD THOMPSON

Fig. 167. — The field.

CHAPTER XII

BASKET-BALL

Ten years or so ago the officers of the Young Men's Christian Association, an organization which has always been interested in athletic sports, convinced that something was needed to lend an additional interest to the regular routine of gymnasium work, introduced basket-ball into their training-schools. The game, combining as it does the exercise of both the mental and physical powers, found instant recognition among the directors of the physical training-schools for women, and it may be said to mark the introduction of the true athletic spirit into women's colleges.

Basket-ball supplied a long-felt want, a good game for women which would combine the beneficial results obtained from the rope, bar, running, jumping, and other gymnasium exercises, and have also the additional interest and spirit of competitive sport. Interesting the game most certainly is both to the participants and spectators; the action is

swift, and the plays open and easy of comprehension even to the uninitiated.

The game may be played in the gymnasium or in the open air, the size of the playing-ground

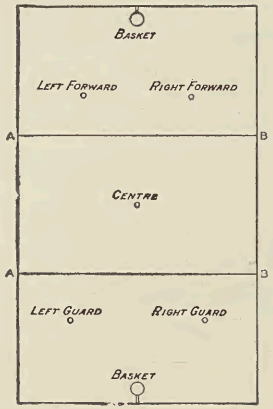


Fig. 168. — Diagram of field with team of five.

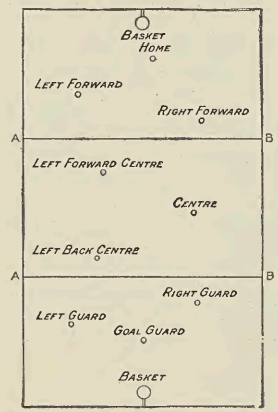


Fig. 169. — Diagram of field with team of nine.

varying somewhat according to the available space; the rules generally adopted stipulating that the space shall not exceed thirty-five hundred square feet.

At opposite sides of the field on the boundary line are the goals. These are baskets made of hammock nets of cord suspended from metal rings and are placed ten feet above the ground. The object of each team is to put the ball in the basket of its opponent and thereby make a "goal." A goal

from the field scores two points and a goal from a free throw one point. A team is given a free throw for goal when the opposite team has made a foul. The captain may select any of the team to make this play, and the one chosen stands fifteen feet from the goal to make the throw. If the ball misses the basket, it is then in play.

A player commits a foul when she runs with the ball, holds the ball for more than two seconds,

Fig. 170. — In the Gymnasium. Getting the ball into play.

kicks the ball, or when she tackles, holds in any way, or pushes her opponent.

The game consists of two halves of twenty minutes each, with an intermission of ten minutes between the halves, the teams changing goals at

the end of the first half. The officials for the game are: a referee, whose duty it is to follow the ball, to decide when it is in play, and when a goal has been made; an umpire, who calls the fouls and watches the players; and a time-keeper.

Fig. 171.—Ready for the "toss-up."

The ball is put in play at the beginning of the game by the referee, who tosses it up in the centre of the field. The ball is also tossed up after each goal, and should two or more players have their hands on the ball for any length of time, technically termed "held ball," the referee takes the ball and tosses it up from the spot where it was "held." If the ball passes out of bounds, it belongs to the player first touching it, who returns to the line and throws it to one of her team; and while no direct tackling or batting a ball from the hand of an opponent is permitted, a player is allowed to block any throw of the ball.

The team is composed of not more than ten and

not less than five players on a side, their positions being called "centres," "forwards," and "guards." The diagrams on page 230 show the respective positions of the players with a team of five and a team of nine.

The practice of dividing the field by the additional cross-lines A and B (see diagrams) is a recent modification of the original plan, and has been adopted by most of the important colleges and physical training-schools for women; it prevents unnecessary running over the field, and makes a much more compact and concentrated style of game by compelling each player to keep more closely to her opponent.

Fig. 172. — Waiting for a pass.

THE CENTRE

The ball being "tossed up" in the centre of the field makes the position of the centre a most important one, as on this player's quickness of action in jumping for the ball as soon as it leaves

the hands of the referee, depends the first advantage of the game. A tall person is usually selected for this position, as height gives a decided advantage when "facing the ball." Although the centre does not usually assist in the actual scoring, yet much of the success of the game depends upon her ability in passing the ball to the forwards and preventing it from being passed by the guards across the centre of the field. Preferably the captain of the team should fill this position, as it commands a view of both ends of the field of play, and from it the captain is able to watch both the attack and the defence and have all the members of the team more directly under her control.

THE FORWARD

The position of forward is one of the most difficult on the team. The forward must have, first of all, great skill in throwing a goal after the ball has been advanced to her by the centre and guards. She must be able to make a goal from many positions and under the difficulty of having the guard of the opposing team directly beside her or in front of her with both hands raised to block her throw; if the ball misses the basket she must not be disheartened, but at once be on the alert to regain possession of it and

prevent it from falling into the hands of the opposing guard.

A good forward should be quick in action and be able to judge when to throw for goal and not to waste her strength by useless attempts. When there are more than two forwards, very successful work may be done by passing the ball quickly among them until one has a reasonable chance to make a goal, the quick passing puzzling the guards as to where to make the strongest defence. In selecting a player for this position, a captain should be careful to pick out a person with a cool head, one who, in the excitement of a match game, while playing with additional spirit and determination, will yet retain full control of her power to reflect, judge, and decide promptly. Many a player who is extremely skilful in making a goal in a quiet practice game will become entirely at a loss when the responsibility of scoring for the team in a match game rests upon her shoulders, and it is

Fig. 173. — A foul.

needless to add that such a forward may ruin the strongest team.

In throwing the goal from the field, the forward has several different methods at her command, each player adopting the peculiar method of play which she finds from practice to be the most effective. Some hold the ball in both hands, with the arms raised above the head, and lend an additional impetus to their play by springing upward when they throw the ball toward the basket; others hold the ball in one hand, resting it lightly on their finger-tips, and give it a certain little twist as they throw it, which is often a very successful style of play. In the free throw for goal the player usually adopts a different method, for here she is not laboring under the difficulty of having an opponent in close proximity with outstretched arms to cover her throw, no one of the opposing team being allowed within six feet of her. She, therefore, takes her time, making

Fig. 174. — "Held ball."

what she considers the surest play for the goal. The most common method is to take the ball in both hands and, bending the body forward, swing the arms backward and forward several times, and then, with a gentle, sweeping motion, lift the arms and throw the ball toward the basket, giving it a slight rotary motion which tends to make it fall into the basket after it has reached a certain point.

Fig. 175. — A free throw for goal.

Other players in making a free throw take the ball in one hand and, bending the arm and drawing the shoulder back, send the ball toward the basket with a firm, straight throw, often an effective play and one requiring a strong arm and a sure eye for calculating distances.

THE GUARD

This position is also one requiring very skilful play, the guard sharing equally with the forward the responsibility of the game. Her effort is to prevent her opponent from scoring and, when pos-

sible, to obtain the ball and pass it to the centre. The guard should never for an instant relax her vigilance, but keep a constant watch, so that as soon as her opponent obtains the ball she may be on the alert to "cover" her throw and defend the goal.

The brilliant playing of the individual members of a team will not, however, win a game; to insure even a fair chance of success, the team must work together as a whole, each player being without thought of individual applause or praise. A

Fig. 176. — A problem for the umpire.

seemingly brilliant play, which calls forth vigorous applause from a sympathetic audience, may in reality be detrimental rather than advantageous to the success of the game. For example, that wonderful

throw of the ball across the field, which filled the spectators with admiration for the player's strength and skill, was simply an evidence of that same player's lack of judgment and inability to look more that two feet ahead of her, figuratively speaking, as in nine cases out of ten a ball thrown such a distance will fall into the possession of the enemy; if, however, it had been passed to a player near at hand and from there to the centre, and so on across the field, it would have remained in the hands of the team. It is true that the ball would not have taken such a beautiful flight, and more than likely the audience would have failed to observe just who was passing the ball, but even this could have been endured when through successful passing a goal had eventually been scored.

Fig. 177. — Throwing for the basket.

When playing indoors the regulation gymnasium suit of bloomers and a loose blouse of some thin woollen material such as serge is usually worn,

Fig. 178. — Returning the ball from out of bounds.

while in the open air a somewhat heavier costume is adopted, a short skirt of some durable cloth like corduroy, and a sweater, or an easy-fitting woollen blouse. To-day, all the important colleges for women — Wellesley, Bryn Mawr, Vassar, Smith, etc. — are represented by regular basket-ball teams, and most of the larger institutions have adopted basket-ball as a factor in physical training. A glance through the pages of any magazine edited in the interest of athletic sports, or at the sporting columns of the daily newspapers, will be sufficiently convincing to show what a prominent place basket-ball now holds, and how generally popular this most healthful and interesting game has become.

Fig. 179.
Ready for a long pass.

EQUESTRIANISM

By BELLE BEACH

CHAPTER XIII

EQUESTRIANISM

If I should be allowed to enumerate all the ailments of both mind and body that riding is good for, I fear my eulogy would exceed the most comprehensive of patent-medicine advertisements. Riding tends to bring the body to a normal, healthy state; it is the secret of perpetual youth, for it keeps the body, the figure, and the heart young. In addition, it teaches self-control and decision, and develops the will power. In short, for a healthy life, strength, and the pursuit — and with a good horse the capture — of happiness, take riding.

I do not approve of very young children learning to ride. Seven years is the best age; before that a child's legs are so short that it is hard for it to keep its balance — and balance is one of the great laws of riding.

Although beginning as a child naturally gives one a great advantage, age should not be considered an impediment to a woman's learning to ride. I have known many women who had never been

on a horse's back until they were forty years of age, who, after a course or two of lessons, derived as much pleasure from the exercise as their children did.

Of course, the degree of excellence reached by a rider, whether she be young or old, depends much upon herself and whether she has been born with an aptitude for horsemanship; but being born with an aptitude is no more sufficient than to be endowed by Nature with a beautiful voice or a gift for painting. The voice must be cultivated, the artist must study, and so the rider must be trained.

Fig. 180.

Self-made riders are apt to scorn what we call form. Yet form is neither fad nor fashion, but the recognized best way of doing some particular thing, and good form is absolutely necessary in riding and to make a finished horsewoman.

I earnestly hope that all parents who can afford it will consider riding as important a branch of their children's education as language and mathematics, dancing or music. For the development

of the body there are many excellent exercises, but none to my mind equals riding. The healthy child takes to it naturally, and, the first difficulties overcome, it becomes her greatest pleasure, while to the delicate child it is often a salvation; through the vigorous exercise both brain and body are stimulated, morbidness is dispelled, and self-control and decision come with increasing ability to ride, for there are mental attributes as necessary in horsemanship as the proper use of the arms and legs.

Fig. 181.

Being a horsewoman and being "horsy" are not synonymous; neither does the one depend upon the other. Just as "fine feathers do not make fine birds," so do stable slang, groomish mannerisms, or sporty clothes not indicate a good horsewoman. The greatest woman rider I know and the best judge of a horse is, mounted or dismounted, an unaffected, simple, sweet-voiced little lady.

Riding Astride. — The advisability of women's riding astride has been much agitated lately, and the proper costume to wear discussed at length.

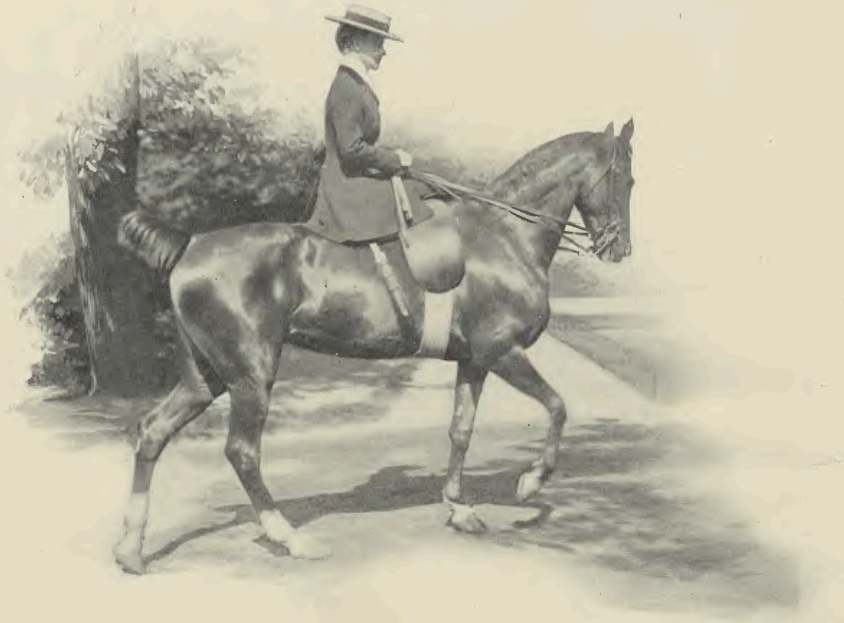


Fig. 182. — "Lady Bonnie," a perfect type of ladies' saddle-horse.

For my part, I think and hope that the cross saddle for women is more or less a fad, for I cannot see a single advantage it possesses over the side saddle, for looks, good riding, or safety; and I can see innumerable reasons why the side saddle is preferable. Many women at Aiken and other fashionable resorts have adopted the cross saddle for polo and hunting. In a game like polo, where much depends upon getting away rapidly, guiding quickly, and riding straight at an object, a leg on each side of the horse is undoubtedly a help. Still, the game of polo, especially for women, is a very small item in connection with the art of riding.

Fig. 183. — Correct position of the legs.

If a woman sits on her side saddle properly, she is in no way distorted or strained. The position is perfectly normal and comfortable. She can get a better grip with the legs, and with these properly held, her balance is assured. Most women are too heavy and wide at the hips, and too short and thick

from the hip to the knee, either to look well or ride well astride. As for accidents in the side saddle, caused from hanging and dragging by skirt or stirrup, I can see no necessity for them if proper precaution be taken to have both of the safety kind.

Fig. 184. — An incorrect position.

Some people advocate the reversible saddle, but to my mind this is simply a notion and quite unnecessary for the normal person. If, I repeat, one sits properly and rides properly, there is no danger of curvature of the spine or any other ill from riding in the side saddle. For those who are determined to try the cross saddle, mention will be made later of the best-appearing costume for the purpose.

The Perfect Saddle-horse. — The proper gaits for a saddle horse are the walk, trot, and canter. The pace and single-foot are popular in the South and West, but while easy to ride, they present an awkward appearance to both rider and horse. A woman's saddle-horse should have a neck

long enough to give length of rein; the withers should be sufficiently defined to keep the saddle in position; the length of the back in proportion to the saddle which is to cover it, and the tail set high to give a good top line. The head should be wide between the eyes, and small, well-set, and well-carried ears add much to the general appearance (Figure 182).

In selecting a horse be sure that he has a light mouth; there is nothing worse for a woman's riding, her hands, her comfort, or her temper than a pulling horse. But remember, too, there is such a thing as too light a mouth. A horse that will not go against the bit, or whose mouth you cannot feel at all, is inclined to rear and rarely shows to good advantage.

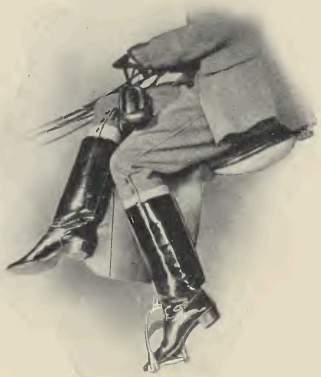


Fig. 185. — Another incorrect position.

The Proper Seat. — The first lesson should be at a walk, with balance and correct position of the legs impressed upon the pupil. If a rider will bear in mind that a good seat and balance depend upon the proper

Fig. 186. — Correct appearance from the back.

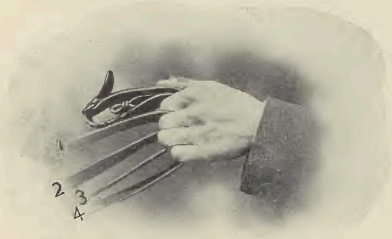
position of the legs (Figure 183), her hardest lesson will have been learned.

The right leg should be well down on the saddle, and the right knee should pull back on the upper pommel. The grip with the right leg comes from

Fig. 187. — An incorrect position, from the back; often seen.

underneath the knee and a little below it; the remainder of the right leg should hang at ease. This and nothing else gives the firm, square seat, and if the right knee is in the proper place, the right shoulder — the bane of so many women riders —

will not be forward, or down, but in line, and the shoulders will be as square as a man's. The left knee should not be pressed up against the pommel or leaping horn, but should be held in firmly against the saddle in the same position as a man's knee. The stirrup foot should be held with the heel down and the toe up, and turned a trifle in toward the horse's side. A very long stirrup is inclined to make a woman ride too far forward on her saddle and up on the horse's withers (Figures 184 and 185).



1, 4. — Snaffle. 2, 3. — Curb.

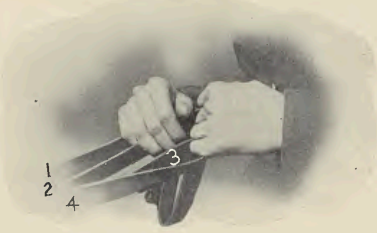
Fig. 188. — Reins as held in the left hand.

If the foregoing instructions are observed, the rider will sit squarely and gracefully on her saddle, the proper amount of work will be done with the right leg, and the right knee will stay firm in the canter, while all the work will not be done with the left leg and the weight will not be thrown on the stirrup (Figures 186 and 187).

The Hands. — The hands should be held in line with the waist, neither above nor below, and the elbows in a straight line with the shoulders. Both hands should be kept in position, and neither arm

ever allowed to hang at the side. The whip or crop should be carried in the right hand, but one should always remember that if it becomes necessary to use this hand, either for rearranging the dress or for gesturing, that the whip should be transferred to the other. Raising a whip carelessly or flourishing it about is the cause of many accidents.

Light hands are a great gift, and if this is lacking, every care should be taken to cultivate it; but with lightness should be combined firmness and a quick sympathy with the horse's mouth. In many cases it is the pulling rider, not the pulling horse. A sort of telegraphy seems to go from the rider's hands down the reins to the horse's mouth, and he usually knows if the rider is nervous or afraid, and rarely fails to take advantage of his knowledge; that is the reason why a horse will act like a brute with one rider, yet go like a lamb with another.



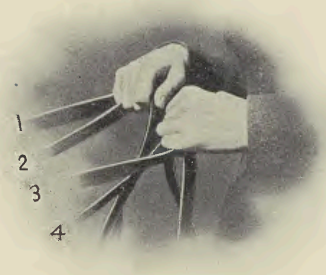
1, 4. — Curb. 2, 3. — Snaffle.

Fig. 189. — Position of the hands when both are used.

The usual bridle is double bitted, with a curb and snaffle bit and curb and snaffle reins. The

snaffle rein can be easily distinguished by the novice if she will remember that it is the rein that buckles in the middle, while the curb is stitched.

The left hand is the bridle hand. Pick the reins up with the right hand, separating snaffle and curb, with the snaffle on the outside, where it should always be held in ordinary riding; then grasp them with the left hand as follows: the snaffle reins outside the little or fourth finger and between the first and second fingers, the curb reins between the third and fourth fingers and the second and third, or, in other words, around the ring or third finger. The reins correctly placed between the fingers, and adjusted to the proper length by the right hand, pass the ends through the palm of the hand from right to left, and, placing them one upon the other in the position in which they belong, keep them firm by holding them with the thumb against the first finger (Figure 188). The right hand should



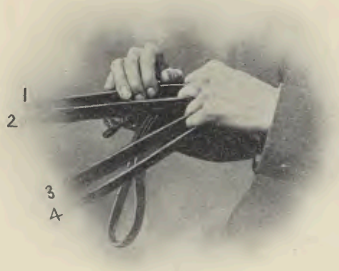
1, 4. — Snaffle. 2, 3. — Curb.

Fig. 190 — Another way the reins are held when both hands are used.

be placed before the left on the reins when both hands are in position (Figure 189).

When holding the reins in both hands (Figure 190), place the snaffle outside the fourth finger and the curb between the fourth and third fingers. The position is the same for each hand.

Figure 191 shows a good method for riding a pulling horse or to bring a horse's head in position and keep it there. The curb reins are outside the fourth finger and between the fourth and third fingers, and the snaffle reins between the first and second fingers and the second and third.



1, 2. — Snaffle. 3, 4. — Curb.

Fig. 191. — A firm grip, for a pulling horse.

When it is necessary to use a ring martingale on one's horse, I would suggest reversing the ordinary position of curb and snaffle; *i.e.* place the curb outside and the snaffle inside, — always remembering, of course, which is which.

Mounting and Dismounting. — In mounting from the ground first gather the reins in the right

hand, and place it on the upper pommel; grasp the leaping horn with the left hand, and face slightly toward the horse's shoulder. Put the ball of the left foot in the groom's right hand (Figure 192) and at an agreed signal straighten the left knee and at the same time spring from his hand as he gives a sudden upward impetus (Figure 193). You will find yourself sitting on the saddle sidewise. Arrange your habit in place, put the right knee over the pommel (Figure 194), the left foot in the stirrup; have the habit straps adjusted, and transfer the reins to the left hand (Figure 195).

Mounting from the ground requires some practice, not only on your part, but on the part of the person assisting you.

In mounting unaided from the ground lower the stirrup to the last hole, gather the reins in the left hand, grasp the upper pommel with the left hand and the back of the saddle with the right, put the left foot in the stirrup, and spring quickly into the saddle; throw the right knee over the pommel, and adjust the stirrup to its regular length (Figure 196).

In dismounting, transfer the reins to the right hand, free the straps, release the foot from the stirrup, swing the right knee off the pommel, — being sure that the skirt is free, — place the hands

Fig. 192. — First position in mounting.

on the pommels and drop lightly to the ground (Figure 197). If a groom is near to assist you, he will proffer his arm, stiffened and crooked at the elbow; as you dismount, place your left hand on it lightly to steady yourself (Figure 198).

Accidents. — Many of the most serious accidents that have happened to women while riding have been caused by their being thrown off to the right of the horse and hanging, completely at the horse's mercy, by skirt or stirrup. If a horse shies to the right, one should immediately throw the weight over to the left. This brings the legs back into position and restores the balance, whereas if one throws or allows the weight to go to the right, the legs lose their grip, the balance cannot be regained, and unless the skirt and stirrup are — as they always should be — safety, one will find herself hanging helpless.

If a horse in shying at an object succeeds in turning halfway around, do not attempt to pull him back in the direction from which he has turned, but instead, bring him quickly around all the way until you have him facing once more in the direction he was originally going. Horses are like children and need to be managed, not bullied. If a horse rears, give him his head instantly and throw all the weight as far forward as you can; if he bucks, keep his head up by use of the snaffle. One should never strike a balky horse; it does no good and confirms him in the vice. Distract his attention or give him the impression that you wish him to stand, not by

Fig. 193. — Second position.

touching the bit, but by the voice. Many times he is so surprised by lack of opposition and by finding his head free that he will start off of his own accord, with almost alarming suddenness. Opposition is a bad thing; a horse may be guilty

of misbehavior, but if care be taken for a while that he is not put in a similar position, he will probably forget all about it, whereas if he is forced into the position again for the sake of forcing him out of it, there is a strong chance of its becoming a habit. Of course, this does not apply to breaking a horse from fear of any object. A horse must realize you are his master, but he must be brought to this realization with discretion; decision of mind and strength of will will be quickly recognized by him, and often save the necessity of a beating. Discretion is a great thing; a thorough knowledge of your own ability and of your horse's, and a proper respect for both, is a great lesson to learn, and another great and primary lesson is, never, under any circumstances, to let go of the reins. If control of the horse is once lost, the rider is completely at his mercy.

Correct Dress. — A great deal has been said and written in regard to the correct dress for the saddle, yet how many women know and practise its two most important laws? — first, to dress plainly and comfortably; second, to look well.

The habit must be well made, well fitted, of correct style, and of best material. Safety skirts should always be worn. There are several differ-

Fig. 194. — Third position.

ent patents for these. One is practically an apron, which on the saddle gives the effect of a skirt; there is no back to it, and the legs are perfectly free and in direct contact with the saddle. This is a very good and safe pattern for hunting and

country use, but is most awkward when the rider is dismounted. Another is more like the ordinary habit skirt but with an open seam back of the legs and up around the pommel; this is provided with patent fasteners, permitting it to be closed when the wearer is off the horse, and readily opened preparatory to mounting.

The regulation habit coat is tight fitting, single-breasted, with five or six buttons, and made long enough to touch the horse in back. Last spring a single-breasted, long, and somewhat loose coat with a fly front became very popular. Either of these is a sensible style to order when one confines herself to a single habit.

Covert coats should be made big, and are very smart for outdoor riding. Norfolk jackets look well on slight women and children, and are very comfortable for country use. The heavier cloth you select for the habit, the better it will fit and wear and the longer keep its shape. Whipcords and rough dark materials are preferable. The simplicity of the habit in black cloth, shown in Figure 180, commends it for park riding as well as for the show ring. Equally desirable for similar purposes is the design given in Figure 181, which is a pleasing example of the closely fitting styles.

Fig. 195. — Mounted.

Khaki, duck, or crash habits are desirable for summer. They stand tubbing, and are very smart and cool. The coats of these may be made tight or loose fitting, as the wearer may prefer.

A black derby is the correct hat for winter, a plain straw sailor for summer, and sombreros are

picturesque for some people in the far, far country. Of late a three-cornered hat has been popular, but it is not generally becoming. The hat should be

Fig. 196. — Mounting, unaided.

large enough to set well down on the head and be kept in place by a broad elastic. Hat pins should never be worn; they look bad and are dangerous in case of accident. The hair should be worn plainly,

either braided and tied at the neck with a ribbon or coiled securely low on the head.

Riding-boots, for comfort's sake a size larger than everyday shoes, should be of calfskin or patent leather. To my mind the stiff or polo legged boot is best and smartest. With summer habits tan boots should be worn or tan leggings over laced tan shoes. The boots, though, are always more comfortable than the leggings. Select your boots from a somewhat mannish last; the very pointed toe and high, narrow heel are no longer in vogue.

Gloves should be heavy, hand-sewed, with one or two clasps, and always a size or two larger than those ordinarily worn.

The underclothes for riding should be as carefully considered as the outer garments. The corset or corset waist should be loose enough for absolute comfort and freedom. Balbriggan drawers, such as boys wear, and socks are best. Stockings should not be used, as they often wrinkle up and chafe, and elastics sometimes interfere with the circulation. Over the drawers may be worn either equestrian tights, reaching to the ankle, or breeches. The riding-breeches are made on the style of a man's riding-breeches and of similar material, but care should be taken that

the buttons on the cuffs are on the inside of the right leg and on the outside of the left leg.

Fig. 197. — Dismounting, unaided.

After the tights or breeches are put on, draw on the boots.

Beneath the habit coat should be worn some kind of shirt-waist, and for neckwear I recom-

mend an Ascot stock fastened with an appropriate pin. The linen collar and necktie are also very smart. With the pinning of the stock one's under-dressing is complete, and one is ready to don the habit.

Light polo whips, or rattan or bamboo sticks, are correct. All jewelry should be avoided. The jewelled whip passed away with the silk hat, the gauntlet glove, and the shot-weighted riding-habit.

Costume for the Cross Saddle. — The under-dressing for riding in the cross saddle should be similar to that for the side saddle. Very baggy riding-breeches and polo-legged boots should be worn. The stiff boot is better than the legging, as it does not show the shape of the leg. The coat should be single-breasted, rather loose fitting, and with quite full and very long skirts, coming below the knee when the wearer is mounted. The coat should be split up the back to allow the skirts to fall each side of the horse, and provided with two tabs which, when the rider is in the saddle, should be secured to a button on each knee. With the skirts of the coat fastened at the knee the whole thigh and upper leg are concealed, and nothing but a smart boot is visible. This is the neatest, smartest, most comfortable, and most modest costume for riding astride.

Fig. 198. — Dismounting, unaided.

Riding in Horse Shows. — One of the most pleasing features of the up-to-date horse show, that goes far toward increasing the interest among both spectators and competitors, is the fact that women are beginning to ride their own entries. As this is

comparatively a new departure a few hints, gleaned from much experience, may be of service. The first thing to realize is that you are riding in a horse-show ring, and not taking part in a social event; the judges may be your friends, or your friend's friends, but they are there to judge horses and not the women riding them. Another golden rule is, "Obey your judges implicitly, in a courteous, ladylike way." If asked to walk your horse, walk him; to trot, trot; to canter, canter. If you are asked to trot in a straight line, do so, and not in a circle on your own account. When you are asked to back your horse, back him properly; and if to canter right and left, — *i.e.* first lead with the right leg and then at a signal change to the left, — endeavor to make him carry out your instructions. If the horse is properly trained, he will do all these things skilfully. If your horse shows bad manners, do not tell the judges all about it.

It takes a considerable amount of patience and experience to become an expert shower of horses; but how much greater satisfaction there must be in riding your own pets to victory than to have an outsider share in their glory.

FENCING

By REGIS SENAC

CHAPTER XIV

FENCING

After many years the art of fencing has once again taken its place amongst the favored sports. Forced from the preëminence it occupied in the seventeenth century by the ban against duelling, the art of the rapier and foil soon came to be a thing of the past, preserved only on the stage, in the German universities, and in the romantic novel. Perhaps it is largely owing to this last fortuitous circumstance and to the great popularity of romantic fiction at the present time that fencing has risen from the neglected state into which it had fallen.

Fig. 199. — Holding the foil in supination.

Fig. 200. — Holding the foil in pronation.

Be that as it may, we may congratulate our-

selves that the younger world has again taken up this delightful pastime — for such it is at present considered. Considered solely in the light of an exercise for physical betterment, I know of nothing that can be so heartily recommended to women as the use of the foils. An hour each day spent in the fencing-room is productive of results which cannot be equalled in the same time at any other exercise. The awkward woman becomes graceful and dignified, the stiff woman supple and pliant. The woman who carries herself slouchily soon acquires an erect and authoritative carriage; elegance of action and ease of repose soon follow. Besides this, fencing gives dexterity of wrist, delicacy and fineness of touch, a firm hand, and a keen eye. It is an exercise in which mere physical strength counts for little, and where skill, judgment, and quickness of eye are all-important. Unlike most of the games played by women, it requires little space and no particular locality. Neither is the fair fencer dependent upon the weather or upon an escort, two uncertainties with which her sister cricketer, golfer, and tennis enthusiast must reckon. Any spare room may be turned into a fencing-room, and within this domain she is mistress.

In taking up fencing, one of the first questions which confronts a woman is the matter of costume.

A costume suitable to foil play is easily provided. A shirt-waist with loose sleeves but tight over the wrist, a light-weight skirt reaching to the knees, and canvas shoes comprise all the essentials. A thin, light material for the skirt is desirable, as it is conducive to ease and freedom of

Fig. 201. — First and second positions. Drawing the foil and with the foil drawn.

limb. Bloomers, quite baggy, and caught closely at the knee, are often preferred to a skirt; I advise the use of the garment which gives greater freedom and ease to the wearer. The sleeves of the waist should not be so baggy as to be in the way, nor so tight as to bind the wrist, upon the suppleness and strength of which so much depends.

The foils, two in number, are of steel, quadrangular in shape, light, and tapering. To their ends are affixed buttons, that the blades may not pierce and injure. It pays to buy good foils and avoid possible accidents resulting from the flaws in cheap steel and from improper tempering. Face masks are indispensable, as without them the exercise becomes extremely dangerous, and too much care cannot be given to their selection. It is my experience that a cheap, thin mask is unsatisfactory, and leaves the fencer in a continuous fear that the face is not adequately guarded. The neck, also, should be protected, either by the mask or by a stout collar. A glove for the right hand is needed. This should be sufficiently padded to save the hand, but should be light and flexible, so as not to interfere with the play of wrist and fingers. It should be finished with a gauntlet that completely covers the wrist and saves it from the pain of probable blows. In selecting a glove, I always get one that follows easily the configuration of my hand and which feels light and comfortable. A baggy mitt about the hand is scarcely conducive to fine work. If it be desired to substitute for the canvas shoe the fencing shoe with protruding sole, the change will be found advantageous, though by no means necessary; the equipment is now complete.

As I cannot proceed further without the use of many fencing terms, it becomes necessary at this point to explain their meaning and use. The blade of the foil we may consider as roughly divided into two parts: the forte, which is the stouter part next the hilt; and the foible, the

Fig. 202. — The salute before the fray.

more slender part of the blade, from the button on its end to within one-third the blade's length from the hilt.

As to the lines of engagement between adversaries, consider the front of the fencing jacket or shirt-waist as divided into quarters by a line down the centre of its front to the waistband and by a

transverse line from side to side across the middle. To the right of the vertical line is the "outside" of your opponent's body, and to the left of it is the "inside." Above the transverse line are the "high lines," while below it are the "low lines." The front thus marked into four spaces will give an idea of the four areas of attack. Giving them their French names — and French is the language of fencing — "prime" is the lower inside area, "seconde" the lower outside area, "tierce" the upper outside, and "quarte" the upper inside. These names apply to areas that necessarily overlap somewhat, and at times it is hard to tell exactly into which area a hit falls.

There are in all eight parries, two being assigned to the defence of each of the four lines. The parries are known by the names of the attacks which they defend, and thus the four pairs are: "quarte and quinte," "sixte and tierce," "octave and seconde," and "septime and prime" — respectively in the high inside, high outside, low outside, and low inside. By drawing an oval divided into four parts properly lettered, one can easily learn this nomenclature.

In fencing the proper handling of the foil depends in large measure on its being correctly grasped, and this I find to be one of the things most difficult

to teach beginners. A foil should not be held like a base-ball bat or a golf club, but with the thumb resting on the upper and broader side, well back of the hilt, with the fingers closing firmly around the grip, but not overlapping the thumb. In no case should the fingers encroach on the ground covered

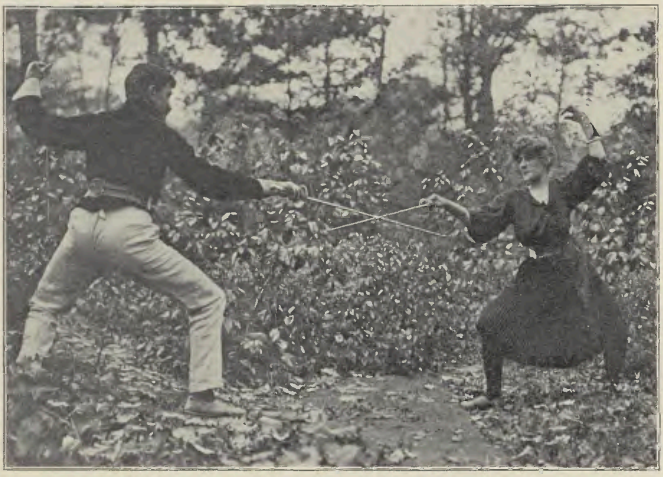


Fig. 203. — Guard in seconde, in which both fencers hold their foils in supination.

by the thumb, interference with its play being a serious drawback in holding the foil. When properly placed the nails on the four fingers are turned upward and the thumb-nail to the side. Students seem to forget that the play of wrist and fingers is the primary and the play of the arm a secondary consideration in a fencing bout. In addition to the

position just described, known as "supination," there is the position for holding the foil in which the fingers are drawn a little closer together, the thumb closer to the fingers, and the back of the hand turned upward. This position, known as "pronation," is assumed in some attacks and parries, but supination is more frequently used.

The first position a fencer assumes in beginning a bout, the position from which all his parries or attacks take their start, is one known as "on guard." To put yourself on guard take the foil in the right hand in the manner I have described, the point turned toward the floor, the finger-nails up, the elbow in line with the hip. Standing erect, let the left arm hang close to the side, palm out, the right foot a very little to the front, its heel resting in the hollow of the left foot, the head and eyes to the front and the body turned sharply to the left. Raise the foil the full extent of your straightened arm until it points upward and to the front. Now execute simultaneously these movements, using only fingers and wrists: drop the point of the foil and bring it in a curve toward your body until it points at the mask of your opponent; bring your elbow just clear of the right hip and your hand on a level with the left breast. At the same time raise the left arm up until it

Fig. 204. — The "time thrust." in which both fencers attempt the same coup, the result depending upon which is the quicker.

is on a line with the shoulder, the hand curving inward over the shoulder in a comfortable position attained by shifting hand and point over so as to protect the right breast. Care should be taken to keep the body perfectly erect and firm from the time the foil is taken in the hand until the manœuvre is completed. I have had pupils ask why so artificial a position is assumed; as a matter of fact, the position is not artificial but is the most natural posture for the body during the work it is to perform. Beginners should practise the on-guard movements until they have acquired them perfectly.

The next movements to be mastered are the "advance" and "retreat." The advance is accomplished by bringing the right foot forward a short, firm step, and following it up quickly with the left foot, the posture of the body being unchanged. In

Fig. 205. — Position in which the adversary's thrust is avoided by ducking.

the retreat, which is the reverse of advance, the left foot is moved back one step, followed quickly by the right. On guard, advance, and retreat, thrust, lunge, and recovery are necessary parts of all movements, and while never used separately, each should be mastered in turn, until the movement becomes mechanical and does not require the attention of

the fencer, who needs his eyes and brains to watch his opponent.

The "thrust" consists in dropping the point of the foil to the spot you wish to hit and quickly straightening arm. Fingers and wrist alone should

Fig. 206. — Lunge and touch in seconde.

be used in dropping the point. Simple as this movement seems, it is most important and requires practice for accuracy; I have seen many able fencers whose work is marred by their not having mastered the thrust. This movement is sometimes used by itself, under the name of "riposte," but it is oftenest used as the indispensable prelude to every attack on the move. There are two rules of

the thrust: the arm must be absolutely straight and the point lower than the hand.

The thrust is part of the lunge. Having executed the thrust, shoot out the right foot about twice its own length, drive the body forward by straightening the left leg, — keeping the left foot flat on the floor, — and drop the left arm smartly to the side, palm out. These movements should be executed all at the same time, and should follow immediately upon the thrust. The lunge to be effective should be quick, firm, and accurate. Loss of balance may terminate ludicrously and besides allow your opponent to hit you before you get back to the position of guard — that is, before you can execute the recovery.

This movement consists in drawing back the right foot to its former position, bending again the straightened left knee and raising the left arm to a line with the shoulder, the wrist arching over it, as originally directed for guard. As already stated, the six movements now detailed are never used separately, but are fundamental parts of fencing, as addition and subtraction, multiplication and division, are fundamental parts of arithmetic. Irksome, no doubt, they will prove to the beginner, but the woman who masters them will find that her less persevering friend when she comes before her is at

the mercy of her superior practice. Moreover, in the execution of these movements is the best chance for graceful poses and spectacular effects — always a pleasure in fencing.

The "parry," the movement by which an opponent's blade is turned away from the place he seeks

Fig. 207. — An exceptionally long lunge, avoided by retreat of opponent.

to hit, might, perhaps, seem to follow naturally the "attack," but as it is the simpler of the two, I shall treat of it first. It must be remembered that all parries are made as far as possible by the motions of fingers and wrist, the arm playing a subordinate part. Of all parries, too, it may be said that they are made with the edge of the foil, not with the

flat side, and that they are made by giving the foible of the opponent's blade a light, quick tap with the forte of your own. Thus, your foil, at the point where you can exert the most leverage, at the forte, is brought in opposition to his foil at a point where he can least resist the force, at the foible.

Parries are of two kinds, simple and counter, and with the first I intend to deal at present. It will be remembered that the simple parries are named after the lines of engagement — as prime, seconde, tierce, quarte, and so on. The quarte parry, which is the most important, is made as follows: using the fingers and wrist as much as possible and keeping the elbow on a line with the hip bone and just far enough from the body to prevent cramping, the blade is carried smartly across the body from right to left, and with a light, quick tap on the foible of your opponent's foil, his point is turned from the line of your body; this leaves your foil pointing slightly upward and your right forearm slightly slanting across the body so as to protect the left breast.

Parry of sixte is made by carrying the blade smartly across the body from left to right (or from inside to outside) so as to protect the right breast in the same way that parry of quarte protects the

left. It is difficult at first to put strength into the wrist sufficient to carry the foible of your opponent's blade quite clear of the body, but I advise students to wait until the wrist strengthens, and not to have recourse to arm parries, which are impossible to control and easy to deceive.

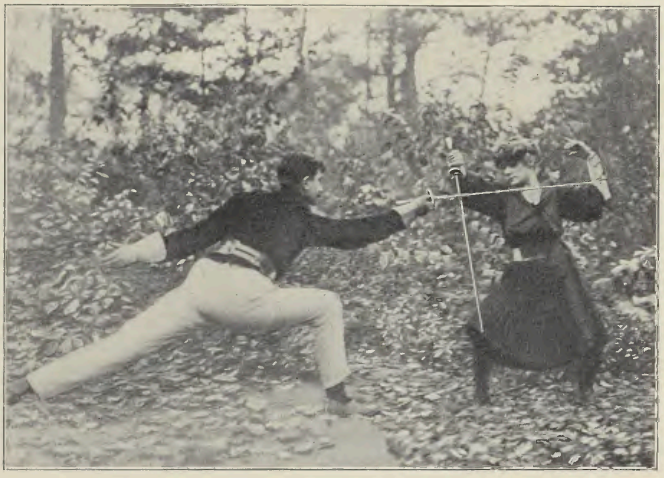


Fig. 208. — Straight thrust parried in prime.

The parry of septime is usually made when, engaged in quarte, the low lines on the same side are threatened. To parry this attack, keep the hand in the same position as for parry of quarte, but drop the point with a semicircular, outward movement below the hand, taking care not to lower the hand, or to drop the point below the bottom of

the waist or fencing blouse, and to use sufficient force to carry your opponent's point clear of your body. From the nature of this parry it is usually called the "half-circle."

The parry of octave occurs if, when covered in sixte, the low lines on the same side are threatened. The parry is made by an outward, semicircular movement like the one just described.

Parry of quinte, known as "low quarte," because it protects the debatable ground between quarte and septime, is formed by lowering the hand from quarte toward the hip (the point keeping its upward trend) and pressing the opponent's point outward, clear of the body.

The parry of tierce, covering the same ground as sixte, differs from sixte only in that it is made with the hand in pronation. Seconde differs from octave in the same manner.

Of the simple parries only prime is left, this being a parry to cover the same ground as septime, when it is known as "low prime," or to cover the high inside lines, when it is known as "high prime." It is the only parry the formation of which necessitates a change in the hold of the foil. It is made from guard in quarte by moving the hand toward the left shoulder, at the same time dropping the point sharply down and turning the

back of the hand upward and outward as far as possible.

It will be seen that tierce, seconde, and prime are made in pronation, whereas quinte is made

Fig. 209. — Thrust in tierce and parry in tierce.

either in pronation or in supination. I describe the movements in the parries and attacks in succession, but in practice they are made so quickly as to be simultaneous.

With the counter parries the beginner will find himself little concerned. They may be explained briefly as circles described around the opponent's foil to bring it back to the point from which it started. Counter of quarte and of septime describe

the circle from left to right; counter of sixte and of octave, from right to left, in their respective lines.

In dealing with the subject of attacks I find that the beginner at fencing is usually bewildered in mind and retarded in progress by the great number and variety of means by which an attack may be effected. Bearing in mind that there are three great classes into which the offensive movements of a fencer may be divided, it may readily be seen that the divisions and subdivisions of each class are too numerous to be carried in the head by the student; practice, bringing long familiarity with the many movements, will give the fencer this knowledge. Therefore, in treating of attacks, I propose to eliminate all but the most important moves in each class. Three rules of attack the fencer should make familiar to himself from the outset; the importance of following the rule will be apparent before the hand has become used to the foil.

(1) In making an attack the point of the foil should always be below the hand.

(2) When the attack is delivered the foil arm should be as straight as you can make it.

(3) Whatever the line may be along which you are attacking, be sure to cover well that line. In

Fig. 210. — Direct lunge and touch in quarte — parried too late.

passing from one line to another, be careful to cover well the line of passage.

It is needless to attempt to explain to one who has never held a foil the importance of following these rules. As the student becomes the proficient fencer, their wisdom will make itself known in every attempt to score.

Classing attacks into the three great divisions which we have made, we have, roughly, attacks initiated by yourself in an attempt to score by force, fraud, or quickness — known as primary attacks; attacks intended to outmanœuvre an attack initiated by your opponent, or to retaliate upon his attack — known as secondary attacks;

and attacks made not with the intention of scoring on your opponent, but for the purpose of forcing him so to move as to better your position — known as decoy attacks. As only a slight movement may be necessary to make your opponent think that he is about to be attacked, decoy attacks are usually unaccompanied by a lunge.

Of the simple (primary) attacks the "disengage" is the most important, as it is used in nearly every attack. This is simply the act of changing the attack from one line to another in an attempt to score a hit. It is effected from high line to low line by simply dropping the point; from low line to high line by raising the point (but keeping the hand ever above the point, on the attack); from one side to the other in the high lines by dipping the point under the opponent's blade, in the low lines by passing it over. Simultaneously with the change from line to line the lunge is made and the button sent home. This simple mode of attack may be perfected in a short time by careful practice in which the precepts of the rules are followed.

The counter-disengage is made whenever your opponent uses a simple disengage. Dip your point under his and attempt to score in the line he has just vacated.

The "one-two," the most important of the feint

(primary) attacks, consists really of two attacks, of which the first is only a feint to confuse your opponent, while the second is the true attack on which you score. Being engaged in sixte you disengage in quarte: your opponent answers with the parry for quarte; instead of trying to score in

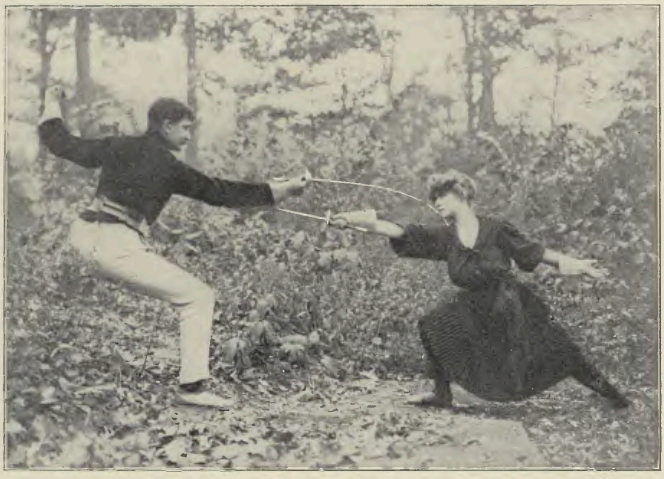


Fig. 211. — Thrust in quarte parried and followed by riposte to shoulder.

quarte you simply straighten your arm as if you intended to lunge, then quickly disengage back to sixte, and, lunging, score your hit there. This movement, which is a typical one-two, must be performed rapidly and with every semblance of driving home the first (feint) attack, in order

to be successful. The "double," a combination of the feint-disengage and the counter-disengage, is used when the first (feint) attack in the one-two is met by a counter-parry instead of a single parry.

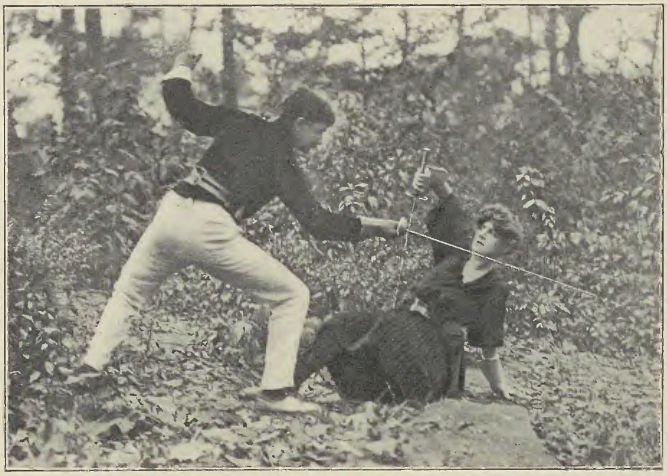


Fig. 212. — Parry at a disadvantage of a thrust for the neck.

In the example which has just been given the double would come into use when, your disengage into quarte being counter-parried, you, by giving a counter-disengage (instead of, as in the one-two, a simple disengage), would pass your point beyond the other's parry into quarte and score there (instead of disengaging back to sixte, as in the one-two).

Of the force (primary) attacks the "beat,"

"press," and "graze" are most used. In the beat you quickly withdraw your blade (by a movement of wrist, not of forearm), press your forte against your opponent's foible, and thus forcing him from the line of cover, you lunge straight into the opening he has left. The beat is sometimes used as a feint and followed by a disengage.

The press is simpler than the beat, as you exert force with your forte on your opponent's foible without the backward movement of the hand, and at once lunge into the opening thus secured. As time is saved by not withdrawing the hand, the press is quicker than the beat; like that attack, however, it is sometimes used as a feint.

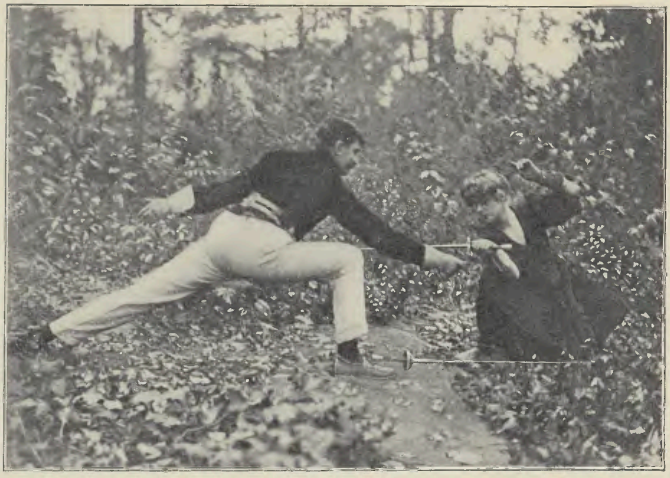


Fig. 213. — Parry of quinte and disarming of opponent.

The graze amounts to no more than raising your wrist and exerting force, your forte to your opponent's foible, driving your button home along his blade and near the hilt, in the opening made by the movement of his hand.

Of the secondary attacks I will treat merely of one, which I have already mentioned in this paper — the riposte. Remember that in the secondary attacks you make an attempt to score on an attack initiated by your opponent; in the riposte this attempt is made at the completion of your opponent's lunge and before he can recover himself. It consists simply in lowering your point and straightening your arm, and is usually unaccompanied by any movement of the foot. The beauty of the riposte is quickness, as it takes your opponent while his forces are scattered after an unsuccessful lunge. In making the riposte, care must be taken that your parry of your opponent's lunge is not wide; for if so, you lose control of your blade. A neat, firm parry with the fingers and wrist should precede a riposte. A riposte is oftenest made from a direct parry, and with this the beginner should be content; but when she becomes a little more dexterous with her foil she may with safety change the line of her riposte by a simple disengage.

Before ending this paper I want to remind the

beginner that fencing is an art of subtlety, not one of might. On dexterity of wrist and fingers, quickness of mind and eye, and sureness of judgment the whole result depends. Brute strength plays but a small part, although, of course, a weak body at the first will be a handicap. I say at first ad-

Fig. 214. — Engagement at close quarters.

visedly, for if the fencer will persist, wonderfully beneficial results will soon put her in the proper shape for a bout. I cannot too greatly recommend moderation in the matter of fencing, especially for the frail beginner. After the vigorous and unusual exercise has lasted ten or fifteen minutes the body is well tired, and to persist beyond this point is

folly. Do not try to do too much; achievement will come in time. In the beginning be temperate, firm, and persistent.

In making your hits do not try to press the button through your opponent's jacket; place your hits lightly. Should the button break or slip while all your strength is thrown against the foil, your opponent would probably be seriously injured. Always see that the buttons are firmly affixed before beginning a bout, and during the intervals of rest make sure that they have not become dislodged. When facing a better fencer than yourself it is well to play a waiting game, until you become somewhat acquainted with the style of his play; keep your hand firm and steady, be confident, and do not rush off wildly at every slight demonstration.

Always acknowledge a hit promptly, and in case of doubt resolve the doubt in your opponent's favor. There is no sport in the world in which one is expected to be more magnanimous to an opponent, especially if that opponent be an inferior. Above all things be courteous.

BOWLING

By SOPHIE GUNDRUM

CHAPTER XV

BOWLING

To the woman with opportunity bowling offers many attractions. As a means of passing a long evening the game presents itself as both healthful and enjoyable. No exercise is more invigorating and health-giving; it brings a glow to the cheeks and a sparkle to the eye which many a woman may well envy. In addition to the benefit to be derived from the muscular exertion in bowling, at no time too severe, there are also the healthful excitement of contest and the sociability which the game promotes.

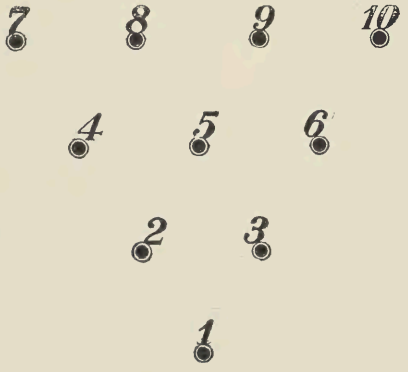


Fig. 215. — The pins and their numbers.

As in every other game, practice makes perfect, but here, it may be said, to become fairly proficient

does not need a great deal of playing. It is an invariable rule that any one who takes up the game becomes a devotee of it and, with more and more practice, at last becomes a fine player. Yet it is a fact concerning this game — which can scarcely be said of any other — that it is not necessary to be skilled in order to enjoy one's self, as in choosing sides those of corresponding skill are selected alternately. In consequence one finds herself trying particularly to defeat the one chosen against her and not worrying because she does not equal the best on either side. I do not know of a single instance of a girl who, having learned the game, has willingly given it up for any other form of amusement.

There are a great many alleys in every city, and very few of them are given up entirely to men; in nearly every case certain evenings are set apart for ladies. Any good player can choose an alley for the beginner, but as true a one as possible should be selected. There are so many bowlers nowadays that one should have no difficulty in finding a friend sufficiently acquainted with the game to instruct her in its principles. To aid in this instruction is the object of the present article, wherein the strike and spare game, with its rules, and the methods of modern play will be explained.

Ten pins are arranged in the form of an equilateral triangle at the farther end of the alley (Figure 216), the pins constituting a "full frame." The "king pin" is the one in the centre of the triangle, and the "head pin" is that nearest to the player. The alley is a raised platform with

Fig. 216. — An up-to-date bowling alley.

a small channel, called the "gutter," running along each side of it. The platform is sixty feet long from the foul line — a line painted across the head of the alley — to the head pin and is three and one-half feet wide, with a space of fifteen feet or more, back of the foul line, called the run. A player in delivering the ball must not step on or over the line, nor allow any part of the body or clothing to touch on or beyond the line until after the ball has

reached the pins. When a foul has been committed any pins made on that roll are forfeited and must be respotted.

In Figure 216 is shown an alley fully equipped. Near the head of the alley should be placed a box containing chalk (Figure 217), to enable the player to chalk the soles of her shoes that she may not slip in delivering the ball. It is very important that the shoes be well chalked before one attempts to roll the ball; if this precaution be not taken a serious fall, or a foul, may result.

Fig. 217. — Chalking the shoes.

The balls are made in various sizes, but none exceeds twenty-seven inches in circumference. In the ball are two holes which enable the player to grasp it firmly, insuring an accurate delivery and avoiding any likelihood of the hand slipping. Many persons are troubled more or less while bowling by perspiration of the hands, which causes

the fingers to slip in delivering the ball. This can be overcome by rubbing the hands with chalk. With a little practice the bowler will discover the size of the ball and the grip that are best suited to her, the grip depending upon the size of the holes and their distance apart. Judge the weight of the ball before trying to roll it down the alley, and if it is heavier than you can manage, take a lighter one.

The correct grip on the ball is simple, yet it may need explanation. The fingers should not be doubled up over the ball, but placed around it as seen in Figure 219. The proper way to hold the ball when delivering it from a stationary position is indicated in Figure 218. Let the ball swing easily at arm's length to the rear, trying to keep the line of the curve exactly in line with the pin for which you are aiming. When the return swing forward commences bend the left knee, let the left hand rest on it to steady the body, and send the ball down

Fig. 218. — Taking aim from stationary position.

the alley, letting go the moment the swing reaches its lowest point (Figure 220).

If a few steps are to be taken before delivering the ball, assume the position on the alley shown in Figure 219, supporting the ball with both hands on a level with the chest. Stand with the left foot and left shoulder slightly forward, estimating the distance to the pins and judging the range; then take two, four, or six quick steps, whichever will bring you to the proper position within the foul line, and deliver the ball as already directed.

The thumb and finger are slipped out of the holes in the ball at the instant it is delivered. If they are not withdrawn at exactly the right moment, the course of the ball will be changed and careful aim will go for naught.

In delivering the ball look straight ahead, directly at the pin for which you aim. The delivery will not be perfect unless this is given the entire attention. Do not let the eye wander for an instant. A capital representation of a ball properly delivered from the stationary position appears in Figure 221. The fingers have been slipped out of the holes in the proper way, and the player is just recovering herself, the left hand having left the knee. The full game consists of ten frames, the player rolling two balls in each. The

pins that are knocked down are called "dead wood" and are removed by the boy in the pit after each roll. When two balls have been rolled and some of the pins are left standing, the result is called a "break," and only those knocked down are scored. If in two rolls all the pins are knocked down, a "spare" is scored. In that case the number of pins knocked down by the first ball of the next roll is added to the ten made in the spare and is also counted in the score of the roll in which it was actually made (Figure 223). On the scoring board the spare is marked \, above the score and in the right-hand upper corner of the square.

Fig. 219. — Preparing for a short run.

If all the pins are knocked down with the first ball a "strike" is scored and the second ball is not rolled, but the pins knocked down by the next two balls played are counted with the strike as well as in the score of the frame in which they occur. A strike is indicated X, in the same position on

the board as the sign for a spare. If the player makes a spare in the tenth frame, she bowls a third ball and counts the result in the last frame; or, if a strike has been made, two more balls must be rolled to complete the game.

Expert players also keep a record on the score board of "splits" and "missed spares." A split is caused by an unlucky ball leaving pins standing in such positions that a spare is very hard to make — for instance, on the sides of the alley, with a space between the pins more than the width of the ball. It is marked **O**. A missed spare is where the player leaves one or more pins standing in the second roll, and it is marked ▬ across the upper part of the frame.

Fig. 220. — About to deliver the ball.

In match games an umpire is selected, who sees that the regulations respecting the alleys, pins, and balls and rules pertaining to the game are

enforced. He is the sole judge of fair and unfair play, and should declare, immediately on their occurrence, all foul balls. The umpire may be changed during the progress of the game with the consent of the captains of both teams; he is supposed to see that the games begin on time, and he must also keep the contesting teams playing from the beginning to the termination, allowing such delays only as are unavoidable by accident, injury, or the like. There can absolutely be no appeal from the umpire's decision, except in the case of misinterpretation of the rules or regulations.

Fig. 221. — A ball well delivered.

The scorers are appointed by the captains of the teams and are not changed during the progress of the game, except by the consent of the captains.

Teams are usually matched with an equal number of players on each, who play in the regular order in which their names are entered in the scorers' books. After the first frame has been played no

change may be made in the players or their positions. The rules require that any team failing to appear on the alley with its full complement of players shall play whatever it has, and the opponents shall have the right to play their full team if they so elect; if, however, any eligible member of the club that is short should appear during the game she may be added to the team, beginning to score at the frame in which her associates are playing and completing the remainder of the game in the regular order from that point.

When bowling, women should dress comfortably, avoiding tight-fitting clothes as far as possible. Street shoes are usually worn, but the value of

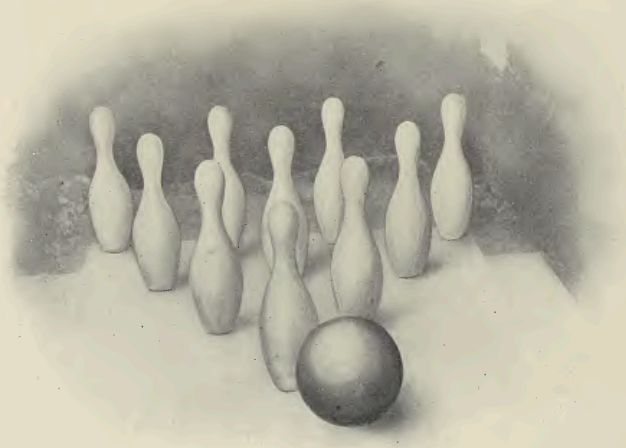


Fig. 222. — A sure strike.

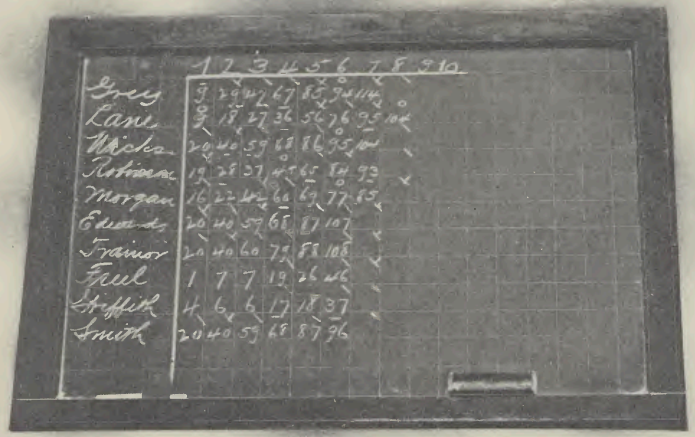


Fig. 223. — A scoring board.

Fig. 224. — Head of alley, showing foul line.

regular bowling shoes is appreciated by the expert. A skirt in short or walking length is preferred, although a long skirt may be worn if occasion demands. A shirt-waist or blouse giving ease at the neck and armholes is essential. Freedom of movement is required for the whole body if physical benefit is to be derived from the game.

The fascination of bowling is so great that one should guard against over-exertion. A few hours' bowling each week will do a woman fully as much if not more good than any other form of exercise, and her improved health will make her much happier.

TRACK ATHLETICS

By CHRISTINE TERHUNE HERRICK

CHAPTER XVI

TRACK ATHLETICS

When women first went in for athletics they did not attempt track events. The mild calisthenics that certain daring pioneers introduced into the school curriculum may have been responsible for turning their thoughts to wider fields, or it may have been the spirit of the age that moved them to more ambitious efforts. The impulse, whatever the cause, showed itself first in such sports as tennis, basket-ball, golf, and the like. Track sports, in the gymnasium or out, are a comparatively recent development.

Mistaken persons often cite this fact as a reason for the low standing of women's records, compared with those held by men for similar events. These apologists point to the shortness of the time women have had any sort of wise physical training, and promise great advances in the records during the next few generations. A woman's physique, they admit, must always handicap her more or less, but, barring that trifling disability, there is no reason

why she should not bring her records within at least speaking distance of those of men.

Without venturing to contest an assertion that only time can prove or disprove, I would like to submit that those who take this view of track

Fig. 225. — The start of a hundred-yard dash.

athletics — or any other sort of athletics — for women, fail to understand their true aim. It is not to enter the field against men. It is not to establish an exalted record of what women can do in the line of jumping, vaulting, hurdling, and running. It is to develop women physically, to teach them to make the best of themselves in every

way, to give them the mental and moral training that cannot fail to come along with the properly directed bodily training.

When this view is taken of athletics for women they assume a new dignity. No longer can scornful man paraphrase Dr. Johnson and say that the wonder is not that women make such poor records, but that they make any records at all. On the contrary, athletics become a means to an end, and, as no end worth anything can be won without enthusiasm over the means, the zeal of the girl athlete is not only permitted but encouraged.

Fig. 226. — Incorrect start for sprint.

The career of the girl who takes up track athletics is leavened by self-denial from the start. She may possibly think it will be all fun before she begins, but the illusion soon vanishes. It is doubtful if she ever cherishes it when she is surrounded by those who have done such work and can tell her

what it will mean. For training can neither be taken in broken doses, nor be discontinued and renewed at pleasure. The work must be followed day in and day out, if the athlete would not fall behind all other contestants.

In the girls' physical training there is no resemblance to "Ladies' Greek — without the accents." The instructor may and does take into account that woman is not lesser man, but a being built on a different plan and, as such, must have her physical qualities considered. But this once recognized and allowed for, he is as strict in his dealings with her as he would be with her brother. Her work may be lighter, but her drill is as faithful, her practice as regular, as his.

The girl who undertakes track athletics must be put through a careful examination at the start. Her family physician must be consulted as to her fitness for athletic work, and his favorable verdict must be corroborated by the school doctor. Possibly it may be decided that she is fit for some things and not fit for others. This girl may not jump, while she may be permitted to run. Another may be unable to practise either of these exercises, although she may put the shot or throw the discus. This matter settled, she begins on the tiresome exercises that are to show what she is best suited

for. They are the A B C of athletics and, like all preliminary studies, more or less of a bore and absolutely necessary.

Just what these exercises may be and the sequence in which they are pursued may vary in different schools and colleges, but the routine is essentially the same, although circumstances may alter cases. Never, however, can the work be much more than drudgery at the beginning; for this beginning is made in the gymnasium, and the zest given by outdoor air and surroundings is lacking. The girl leads off with the use of the dumb-bells, of which she has probably learned something by former calisthenics. The exercises she had in those earlier days she has now, and others besides. She is drilled in rising on the toes, in bending forward and backward, to stooping until she can touch the ground before her with her

Fig. 227. — Correct start for sprint.

knuckles, and in a variety of other motions for which she probably sees little use. Perhaps certain of these have no specific value in the kind of sports which she wishes to follow, but each of them does its work in limbering the girl, in teaching her her weak points, and in getting her body in trim for work. Such training is to her what the "setting up" exercises are to the soldier. She is developed by them to know her strength and her weakness.

Sometimes a girl has no preference as to the form of athletic sport she shall follow; or, perhaps, she has decided likes and dislikes in the matter. This one inclines to sprinting or to longer runs. That one has a fancy for hurdling or for jumping. If she is indifferent in the matter, her natural abilities will decide the point, — or her natural disabilities. There may be some events for which she is positively unfitted. That must be for her instructor to determine. Often awkwardness or heaviness or clumsiness may be overcome by training. As a usual thing, the girl's natural gifts are considered in deciding what especial form of exercise she shall make her own. This important choice concluded, special training begins. Special training there is, as a matter of course, for nearly every kind of sport, but there are certain modes of exercise that are good in any form of athletics.

Nearly all the early training is taken in the gymnasium.

A great many girls have serious doubts about their ability to jump, but a much smaller number

Fig. 228. — Correct start for long-distance run.

have any misgivings as to their power as runners. They have always run, they will say, and it is a good deal of a shock to them when they are informed that natural running is a thing which generally has to be unlearned before the scientific runner can be made.

Few untaught runners fail to throw out their feet in running. They have also a tendency to throw their feet up in the air behind. Therefore, there is a great deal of exercising for "form" that must be done in the gymnasium. One of the first things a would-be sprinter is taught is to "run in front." Some teachers instruct their pupils to "toe in" in running in order to get the right position for the foot. It is said that at least an inch is gained in the stride by doing this. Power and space are wasted by turning out the toes in running. The pupil is also taught to run from the hips and not from the knees. It is the latter mode of running that makes the feet fly up behind.

Comparatively few girls run flat-footed — that is, with the whole foot coming down flat upon the ground, so that the heel touches. But all must take their practice at running on the toes. This gives a springy carriage, and when the girl learns to lift her knees high in running, she will probably lengthen her stride as well as improve her form.

Long-distance runs have not as yet been generally undertaken by girls. As a rule, they confine themselves to a dash of fifty, seventy-five, or a hundred yards. In one or two schools and colleges there has been a run of two hundred and twenty

Fig. 229. — A well-taken hurdle.

yards, — an eighth of a mile, — but the shorter runs are rarely exceeded.

The girl who aspires to figure as a sprinter works all winter in the gymnasium. She has also long country walks if she is lucky enough to attend a school or college where these are attainable. When the ground permits she is practised in a slow jog. Half an hour's exercise in the open air is worth more to her than an hour in the gymnasium. The fresh air does her good and stimulates her to effort. A girl who has done well indoors is bound to do better on a track.

Possibly the girl has practised the start while in the gymnasium, but she will find it a very different thing out of doors. She may have difficulty in mastering it, and for some time after she begins to practise on the crouching position she will prob-

Fig. 230. — Rising to the hurdle.

ably feel as if the attempt would terminate for her in an ignominious tumble on the nose. In one of the illustrations is shown the position wrongly taken. The eyes are on the ground, the figure too much pitched forward. In the next illustration the head is raised, the eyes look ahead, the whole

figure is tense on the forward spring. The command "Set" has been given, and after that the crack of the pistol that means "Go!" While the runner is only on the mark the position is of less importance, but after the word "Set!" she must be on the alert.

The crouching position was not introduced into America until ten or twelve years ago, but it is almost universally used now, especially for the shorter runs. For longer races the standing position is adopted in many cases, and what this should be is also shown. The figure is in the attitude given by sculptors to Atalanta or Diana and other swift runners of fable.

The practice for the spring or the run is by no means over when the start is mastered. There must be jogging around the track day after day and many trials to decide what one's powers and speed really are. Over and over must the start be practised; again and again must the distance be run before the young athlete is in any condition to enter for a race. When she is ready to undertake this, she must have special practice for the event. The last day or two before the race she must rest altogether, and she must not do her best work in running for three or four days previously. If she does, she is likely to "go stale" at

the last moment and to fall behind her highest mark.

Hurdling is less followed by women than either running or jumping. From the point of view of the spectator it should be better known. There is no prettier event in athletics. Hurdling, which is, in a way, a combination of running and jumping, is, in its demand for the strain of both the run and the jump, a rather violent form of exercise. Light girls who are not excessive in muscle often succeed in this, and the girl who is good at jumping usually does well in hurdling.

Fig. 231. — Standing broad jump — take-off.

For this sport the exercises practised by the jumper — of which more later — are very helpful, and the practice in running is also of great value. The girl must go at the hurdle with a rush, and all she has learned of skill and ease in running and in the management of her wind and in the right sort of start stands her in good stead here.

The start is made some distance back from the first hurdle. For women these need not be more than two feet and six inches in height. At this the hurdler comes full speed and clears the hurdle in what is not a jump, but more like a stride. What this should be is shown to advantage in the illustrations. In the first the hurdler has risen to the leap, jumping in this case from the left foot. This is possible on a straight track, but on the curved track the right foot must be used in jumping, and on this account the hurdler is advised to learn jumping from the right foot rather than the left.

In the second illustration the hurdler appears at the highest point of the jump, when she has just cleared the hurdle, and in the third illustration she is alighting, the right foot well forward to begin on the run that leads to the next hurdle.

In this, as in many other athletic sports, the spiked shoe is of distinct advantage. It is always worn by men athletes, but its use is as yet by no means common among girls. This is one of the adjuncts to athletic training that will probably come in time.

Technically speaking, track events are confined to sprinting, running, and hurdling. Jumping in its different forms, vaulting, and putting the shot

are field events. But for the purposes of this paper all are included under one general head, and it is probable that no one but the expert will cavil at the classification.

Fig. 232. — Standing broad jump — in mid-air.

For jumping, whether high or broad, running or standing, much practice may be done during the winter in the gymnasium. Not in the actual jumping, for that is a dangerous thing to attempt upon a slippery floor, but in the exercises

that fit the girl for it. The rising on the toes, already mentioned, the squatting or "frog" exercise, the practice of sitting on the toes and on the heels — anything to strengthen the muscles of the legs is valuable. But this is not enough. The chest and back must be made strong if one is to be a good jumper. The strain on the back is what does the lifting when one goes over the bar. In order to develop those muscles the future jumper must pull weights and swing dumb-bells. With these exercises she may combine one that takes her back almost to nursery days and use the skipping-rope. This is a mild exercise for the back and arms, but it is excellent for the legs and teaches the girl freedom and ease of motion in the employment of her limbs. Jumping from a spring-

Fig. 233. — Running broad jump — in mid-air.

board is sometimes practised, but this is not recommended by the best instructors, who say that after the spring-board the jumper finds the ground so inelastic by comparison as to impair her work.

When the weather becomes propitious is the time to begin jumping in earnest. Now is when the jumper decides what form of the sport she will adopt. Sometimes a girl is good at both the broad and the high jump, but she is more likely to devote her attention to either one or the other.

The standing broad jump requires less exertion, in a way, than the running broad jump. In the latter the distance jumped is, of course, much greater than that covered in the former, since this lacks the impetus given by the run that leads to it. On that account it requires a smaller exercise of muscle. All the help one gets outside of the immediate effort of the muscles is furnished by the motion of the arms as the jumper swings them before the leap. Twice, as a rule, she swings them and then, throwing them in the air, leaps forward.

In the first illustration of the standing broad jump the girl is poised for the leap, while the second illustration shows her halfway through the jump, the arms still up and in front of her. As she lands the arms are yet before her and

doing their part toward bringing her farther forward.

The take-off is of less importance in the standing broad jump than in the running broad jump. In the first the girl has only to select her standpoint and to jump from there. In the second she has to learn by long practice the number of strides that will bring her to the take-off with the foot from which she is to jump. The running broad jump has been called a combination of sprinting and jumping, and the girl who has given her attention to running will find her practice coming in well here.

The run and the take-off are something the jumper must determine for herself. To train one's self so that the jumping foot shall strike the first mark and also come upon the take-off requires long and conscientious work. Again and again the girl must go over the runway, measuring her strides and gauging them so that she will instinctively strike the take-off as she should and not have to plead a foul and run again.

In practising for this it is a common thing to indicate the first mark by a handkerchief dropped at the spot where the jumper begins the final run that ends in the jump.

The foot from which the jump is made is some-

times one, sometimes the other. The girl shown in the illustration jumps with her right foot. As it comes down hard upon the take-off she throws her arms forward as in the standing jump, and they aid to carry her on.

The fashion in which the jump is made depends upon the individual jumper. Some girls jump forward with all their might, but it is by no means certain that this is the best way to do it. More than one instructor directs pupils to make the final effort not to jump forward, but upward. In starting on the run the jumper is to think of jumping forward, but when the take-off is reached she is to think only of how high she can go. The impetus she has gathered in her run carries her onward, and the two forces make the space covered better than if the attempt were merely to render the jump as broad as possible.

Fig. 234. — Running broad jump — take-off.

The running high jump is a very pretty per-

formance when it is well done, but it requires a great deal of practice. The preliminary exercises in the gymnasium have already been indicated, but the best work of training cannot be done indoors. The practice on the track is what makes for success, and of this practice the girl will need a good deal. As in the running broad jump, she will have to accustom herself to striking the first mark in the runway with the jumping foot and to bringing this down on the take-off. A general rule for the position of this is that it should be the same distance from the bar that the bar is from the ground.

Fig. 235. — Preparing to put the shot.

More, probably, depends upon form in high jumping than in any other one event. For this reason the jumper must exercise for form for a long time before beginning to work for height. She must practise on the take-off and on jumping at a low bar, so that she may learn in what manner she is to go over it. There are several kinds

of form that are admittedly good. But in all the jumper should land, after the jump, facing the bar. Some jumpers go over the bar in the "scissors" fashion, others with the feet drawn up near the body. The only way to get form is by hard practice, and it is scarcely to be expected at this stage in the development of athletics for women that their form should compare with that of men.

In jumping, as in running, the girl should take a day or two of rest before she enters any competition or undertakes the work of a field day. It is better if she rest for three or four days. In her practising she should never try to make her highest jump every time. If she does, she is very likely to go stale and fall behind on her record. Her best jump is often made on the first day she tries. She should bear this in mind, and not become discouraged or nervous when she cannot equal her first attempt. It is said that jumping is fifty per cent mental effort, and if a girl loses confidence in herself, she is bound to show a poor result.

Putting the shot likewise demands practice, not only that the shot may be "put" as far as possible, but also that the effort may not be accompanied by the strain it must be the endeavor of the athlete to avoid. Again, it is necessary to have the arms

strong, and for this punching a bag is a good exercise.

The girl putting the shot stands within a circle, her foot close to the board. The weight of the body is thrown upon the right leg, the shot is

Fig. 236. — High jump.

balanced in the right hand, and then a quick jump is made with the right foot. With the impetus thus given the body the shot is thrown forward with all the strength of the right arm. The cut shows the position the instant after the delivery.

An eight-pound shot is generally used by women, while men have one of double this weight or more. Shot-putting, like discus-throwing, ought, if followed with prudence, to be a beneficial exercise for women.

If the advocates of athletics for women are ardent, their opponents are equally strenuous. The chief objections are based, very naturally, on health considerations. They say, with reason, that all instructors are not wise, and that most girls are over-zealous. Few women can work or play moderately, and if they once become absorbed in athletics, they will be prone in their excitement to go beyond their strength and do themselves lasting harm.

All this is true. But it applies as well to other forms of outdoor sport and exercise, and physical instructors of girls' schools and colleges have to command moderation. With increased interest in athletics it is certain that higher qualifications will be demanded in gymnasium teachers than a mere knowledge of sports. They will be educated to bear in mind always the true aim of athletics.

Let me quote the words of a well-known supervisor of athletic sports in a prominent college for girls: —

"Women have a different object in athletics from men. Health is ours, moderate effort bringing pleasure with it, but competition is secondary."

The experiment has begun. It does not seem too much to ask that track athletics for women shall have a fair trial.

Fig. 237. — Shot-putting — the delivery.

Recent Works on Outdoor Life and Gardening

A WOMAN'S HARDY GARDEN

By HELENA RUTHERFORD ELY

With Many Illustrations from Photographs taken in the Author's Garden by Professor C. F. CHANDLER

Cloth. 12mo. $1.75, net

"It is never for a moment vague or general, and Mrs. Ely is certainly inspiring and helpful to the prospective gardener." — *Boston Herald.*

"Mrs. Ely gives copious details of the cost of plants, the exact dates of planting, the number of plants required in a given space for beauty of effect and advantage to free growth, the protection needed from sun and frost, the precautions to take against injury from insects, the satisfaction to be expected from the different varieties of plants in the matter of luxuriant bloom and length of time for blossoming, and much information to be appreciated only by those who have raised a healthy garden by the slow teachings of personal experience." — *New York Times Saturday Review.*

THE GARDEN OF A COMMUTER'S WIFE

Recorded by the Gardener

With Eight Illustrations in Photogravure

Cloth. 12mo. $1.50

"'The Garden of a Commuter's Wife' is a legend that gives no hint of the wit and wisdom and graceful phrase within its covers. The Commuter's charming woman writes of her suburban garden, her original servants, and various other incidents which come in the course of living in a thoroughly human way. She reminds one of Elizabeth of 'German Garden' fame in more ways than one, but being American she is broader, more versatile and humorous, if not also more poetic. It breathes an air of cheery companionship, of flowers, birds, all nature, and the warm affection of human friendship. Its philosophy is wholesome, unselfish, and kindly, and the Commuter's Wife, who writes her own memoirs, is one we would be glad to number among our friends."
— *Chicago Post.*

THE MACMILLAN COMPANY

66 FIFTH AVENUE, NEW YORK

Recent Works on Outdoor Life and Gardening

FLOWERS AND FERNS IN THEIR HAUNTS

By MABEL OSGOOD WRIGHT

Author of "Birdcraft," "Citizen Bird," etc., etc.

With Illustrations from Photographs by the Author and J. HORACE MCFARLAND

Cloth. Crown 8vo. $2.50, net

"The reader of Mrs. Wright's handsome volume will wend his way into a fairy world of loveliness, and find not only serious wildwood lore, but poetry also, and sentiment and pictures of the pen that will stay with him through winter days of snow and ice. . . . A careful and interesting companion, its many illustrations will be particularly useful." — *New York Tribune.*

GARDEN MAKING

Suggestions for the Utilizing of Home Grounds

By L. H. BAILEY

Professor of Horticulture in Cornell University

Aided by L. R. TAFT, F. A. WAUGH, and ERNEST WALKER

Cloth. 12mo. $1.00

THE PRACTICAL GARDEN-BOOK

Containing the Simplest Directions for the Growing of the Commonest Things about the House and Garden

By C. E. HUNN

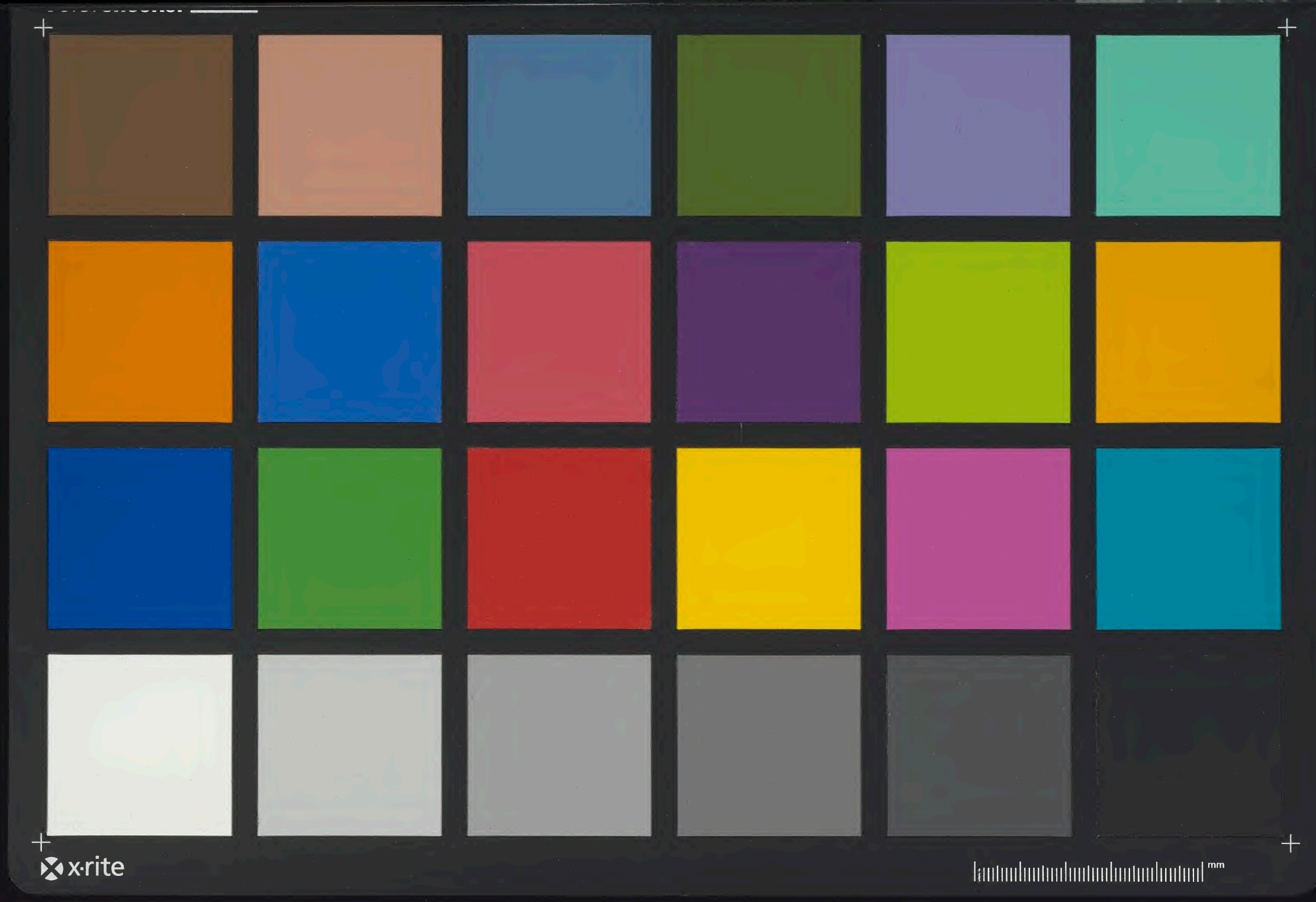
Gardener to the Horticultural Department of Cornell University

and L. H. BAILEY

Cloth. 12mo. $1.00

THE MACMILLAN COMPANY

66 FIFTH AVENUE, NEW YORK


x-rite
mm

ColorChecker CLASSIC

x-rite

mm