# SIMPLE AND PRACTICAL METHODS IN DRESS REFORM; WITH SCHEDULES OF INSTRUC-TIONS TO PATIENTS, AND ILLUS-TRATIONS.

BY ROBERT L. DICKINSON, M.D., Brooklyn, N. Y.

MEDICAL men who are convinced of the necessity for dress reform among women, and are desirous of urging patients to undertake such changes, are often deterred from putting belief into practice by lack of knowledge of practical details. The patients themselves lack such knowledge, and, as far as my reading goes, the books and papers that urge better methods of dressing lack complete and clear directions. I therefore offer this attempt to formulate some schedules to meet the common need.

The impression prevails that, while a few of the new ideas have proven useful, there is no system which has become solidly grounded and which can be adopted as a whole; that the reformers are at variance among themselves and hopelessly at odds with "fashion;" and that the new dress is necessarily ill-fitting, and suited only to women willing to sacrifice style and beauty to health.

All this is not hard to disprove. The new clothing is simple, beautiful, light, warm, comfortable and well-hung, and relatively inexpensive. Here we shall have to confine ourselves, however, to the simple statement of the method, purposely omitting all the arguments as to the necessity of the change and even as to its greater beauty. References are



appended wherein these subjects may be found ably and fully discussed.

The men of our profession have not been active in this matter, but have rather stood aside and damned it with faint praise. Yet our plain duty is to cure in the original sense—curare—to care for the growing girls and the delicate women and the convalescents after childbed who are in our hands, and to do everything we may to prevent the necessity for local treatment.



Composite photograph of girl in corset and without corset; an exact reproduction. Note the two outlines at the waist. This is not what is called "tight lacing," but from a working costume.

The change in costume may be gradual, but must be thorough, in order to be effective. To remove a corset and leave the individual to the constriction of her waist-bands is to sub-

stitute a narrow girdle of pressure for a distributed pressure, and will do as much harm as good. To replace a corset by a health waist or corset-waist, leaving the heavy skirts to drag on the abdomen, is to make an improvement of relatively small value, although the most harmful factor in the corset, the rigid front steels, will be thus banished. To advocate the health waist, with light and well-hung skirts, is a long stride in advance, and one to which we may often resort as a beginning, and may even rest upon in a small class of cases to be noted further on; but I now believe that the health waist should not be countenanced except as a temporary expedient.



The action of tight clothing about the waist in producing anteflexion.

B. bladder: R. rectum.

The "health waist" is not a health waist. All the counts against the corset hold good, in a modified degree, against this substitute. As bearing on this matter, recent experimental researches by a variety of observers coincide in establishing certain facts concerning waist constriction in their relation to our specialty that have heretofore been largely matters of opinion or prejudice, and which may be thus outlined:

1. The normal breathing of woman is like that of man-

abdominal. Waist constriction changes the type of breathing to costal.

- 2. The pelvic organs, normally, make a considerable excursion with each respiration. Waist constriction in the upright position checks this motion almost entirely.
- 3. Sitting or bending forward lessens the pressure within the abdomen. Waist constriction in these positions greatly increases intra-abdominal pressure.
- 4. The abdominal organs are displaced downward by waist constriction, and at times to an extreme degree.
- 5. The uterus is displaced downward, backward, or forward, by such pressure.



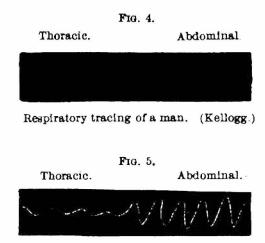
Fig. 3.

The action of waist constriction in starting a retroversion when the bladder is full.

U, uterus. The dotted line shows the normal pelvic floor.

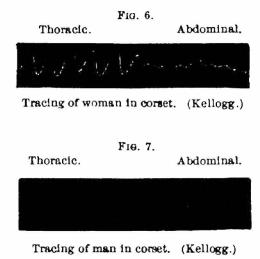
- 6. The pelvic floor is bulged downward.
- 7. The circulation in the pelvis is obstructed.
- 8. The abdominal wall suffers by thinning of muscle and accumulation of fat, and the trunk muscles waste.
- 9. The chest expansion is crippled by compression of the lower ribs and the check on the play of the diaphragm.
  - 10. The capacity for outdoor exercise is hampered.

These considerations point out the rules for our guidance in judging any system of dressing or any article of dress. We shall briefly discuss each. Abdominal respiration is essential to woman's health; clothing must be worn that does not restrict it. All women who wear corsets and tight waist-bands breathe with a distinct



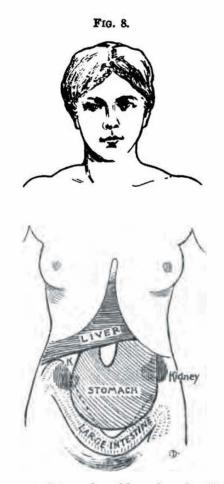
Respiratory tracing from a woman who has always worn loose clothing. (Kellogg.)

Note that it is almost identical with the first.



movement of the upper chest. This costal or thoracic respiration is as unnatural to the woman as it is to the man. Mays has shown by tracings that Indian girls breathe like men, Kellogg has elaborately confirmed the observation among various Indian tribes, among Chinese women, agricultural women, and English pit-brow lassies, and Wilber-

force Smith has added his evidence. All agree that civilized women who have been in the habit of wearing clothing truly loose about the waist show the same type. Women asleep breathe like men, and male and female animals breathe alike. And the very argument that chest breathing is normal to woman because it is necessary during pregnancy falls to the

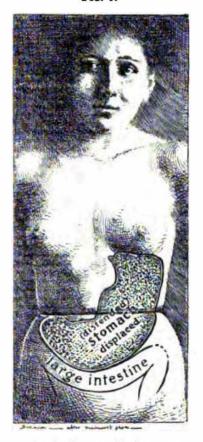


Displacement of stomach and large bowel. (Meinert.)

ground when it is demonstrated that even late in pregnancy abdominal respiratory movements predominate over thoracic movements. The agent most active in abdominal breathing, the diaphragm, is a muscle that may be developed like any other muscle, so that long-distance runners, in the quiescent condition, have least costal breathing of all men.

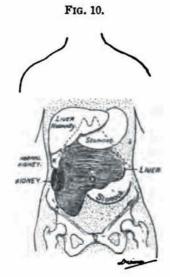
The constant to-and-fro motion of the uterus and the organs about it is essential to their health. Clothing must permit this motion. With each inspiration the organs in the lower abdomen are carried downward one-tenth to one-third of an inch, and up again as the breath passes out, in the case of women who wear loose clothing.





Displacements in a woman who had never had on a corset, but had worked hard with tight waist-bands. (Meinert.)

Alternating pressure and relaxation secures free flow through the great meshes of veins and lymphatics; alternating traction and relaxation develops the muscular bundles of the uterine supports, of the peritoneal coverings, and of the pelvic floor under all; and alternate stretching and slackening strengthens elastic supports. As in any other part of the body, exercise is needed—rest and motion in right proportions—and the organs themselves need it as much as their supports and bloodvessels do. With each inspiration the descent of the diaphragm increases the pressure in the abdominal cavity and lessens that in the chest, and blood is squeezed out of the pelvic and portal veins and at the same time sucked up above the diaphragm. Therefore, dress that cripples the diaphragm slows the pelvic circulation. The blood flow is also interfered with in another way. The valveless ovarian veins empty near the kidney in the area of greatest corset pressure, and afford a long and perpendicular column of blood to be dammed back.



Displacement of organs caused by corset wearing, from a patient of the writer's.

The natural position is shown above in the faint outlines.

Any garment that impedes the free play of the lower ribs or that hinders the motion of the abdominal wall in respiration must do harm to the pelvic organs, by diminishing the activity of the diaphragm, and this the health waist does.

The clothing must cause no displacement of abdominal or pelvic organs. I have demonstrated, and the same observation has been worked out by others, that the pressure from a tight corset—or the pressure from a loose corset with the wearer in a sitting or stooping position—bulges the pelvic floor down-

ward to the utmost of its capacity to yield. The uterus is depressed, its supports are stretched and held tense, and any



Displacement of organs due a health waist, from a case of Dr. Kellogg's.



Girl bending forward at work. When the pelvic inclination is lessened the pressure from above gains ready access to the organs within the pelvis.

exertion under these conditions strains the taut structures still further. With the health waist the condition is the same as with the loose corset, except that the steels are missing.

That the waist may produce displacement of viscera has been shown in many cases, one of which is here pictured.

It is especially in the seated position bending forward that harm is likely to come to the structures within the pelvis. In this position the pelvic inlet becomes nearly level and fairly beneath the abdomen, therefore any increase of pressure from above gets full value in its downward push—while all this is still more true when the woman sits "on the small of her back." All who work with the needle in the lap spend long hours in this unfavorable attitude, and to a lesser degree all who work seated.

Clothing must hamper bodily activity in the least degree possible—must be simple in construction, light, warm, comfortable, and well hung. All these considerations become vastly more important in any displacement of the uterus or other pelvic organs, or in the presence of any laceration, or congestion, or inflammatory condition whatever.

Printed schedules. To satisfactorily instruct patients we require a printed schedule of directions. The verbal method is long, and its items are not remembered. All of us will appreciate this need who are in the habit of using printed diet lists, with their necessary accompanying instructions, in the treatment of indigestion, diabetes, obesity, gout, severe illnesses, and genito-urinary disorders, lists on which the whole may be used or any desired items may be checked. Without such instructions we cannot hope to carry out any plan that will yield satisfactory results. The women's dress clubs should issue a pamphlet containing the requisite instructions, but I believe they have not yet done so. To fill this need I shall use part of this paper in my own practice.

The best and simplest form of dress is as follows:

- 1. Union undergarment.
- 2. Equestrienne tights.
- 3. Muslin waist and skirt in one.
- 4. Dress in one piece, or so built that the weight of the skirt is largely carried from the shoulders.



Fig. 18. Fig. 14. Fig. 15. Fig. 16. Fig. 17.



- Fig. 13. Union undergarment. For summer it is made with low neck and short sleeves.
- Fig. 14. Equestrienne tights, the substitute for the flannel petticoat.
- Fig. 15. Waist and skirt in one piece.
- Fig. 16. The dress in one piece, or hanging chiefly from the shoulders.
- Fig. 17. The gown form, which suspends the skirt from the shoulders when the skirt is separate from the basque of the dress.

1. Union undergarment. This is a combination of undershirt and drawers in one piece, whereby the pressure and the ridge caused by the band of the ordinary drawers is done away with, and the drawers are no longer hung on the waist line, but their weight is evenly distributed. Also the lapping of the lower end of the undershirt under the drawers is avoided, with a consequent double thickness of material at a part of the body where bulk is especially unsightly. At this stage of the proceeding, as at every other step of this process, the result is comely.

For winter wear this suit should have high neck and long sleeves and reach to the ankles. The material should be Jaros, silk, wool, or merino—desirable in the order named. The Jaros¹ material is wool inside with cotton back; it does not shrink as wool does; it is even warmer than wool, since the wool surface that is next the skin will pass a drenching sweat out to the cotton layer while it remains warm and almost dry.

For summer the garment may be low-necked, short-sleeved, and reach to the knee, and be made of silk, lightest wool, or cotton or lisle thread.

These combination suits are sometimes worn in black or in colors.

There is an ample flap in the crotch to obviate the objection sometimes made to these garments.

2. Equestrienne tights. These are silk or worsted leggings, dark-colored, jersey-fitting, reaching from ankle to waist, and either open or closed at the crotch. They are the efficient and comfortable substitute for the cumbersome flannel petticoat and the still heavier divided skirt. They are to be slipped on before leaving the house and removed on returning. Every ounce of weight goes for warmth. Their elasticity and

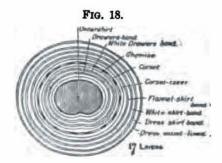
<sup>&</sup>lt;sup>2</sup> A special or separate skirt is often worn by women to provide a fiap with which the vulva may come in contact in sitting, to prevent the risk of soiling a dress after urinating, on the verge of menstruation, or in trifling leucorrhœa, particularly as the seated position tends to separate the labia.



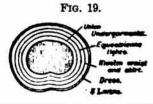
<sup>1</sup> Office, 881 Broadway, New York.

snug and easy fit cause the weight to be distributed over the lower part of the body and the legs, and permit quick dressing. In summer the tights are not worn.

3. Muslin waist and skirt in one piece. The waist serves the purpose of preventing speedy soiling of the undergarment by dark dresses and dark dress linings, and guards the dress from perspiration. The skirt supplies the rear flap before mentioned and renders the shape of the legs less conspicuous



The seventeen ayers at the waist in the present dress (each band counting as a double thickness). A thirty-four foot bandage thus encompasses the waist.



The five layers at the waist line in the new dress (the dress having a lining).

when walking or in a wind, while it also prevents their contour showing as a woman stands in a thin dress against a bright light.

4. The dress hung mainly from the shoulders. The dress is to be so constructed that its weight shall be carried from both shoulders and hips, but in such a fashion that free play of ribs and diaphragm are permitted. The designation "princess" is applied to a dress in one piece. Should a basque or bodice be desired (separate from the skirt) the skirt, if very light, as of wash goods, may be hung on the basque with hooks; but if heavy the skirt must be made on a Jenness-

Miller "gown-form" in which a skeleton basque continues the skirt lining upward. See Fig. 17. The old style of skirt may be adapted to this idea by removing the band and by stitching the lining of the skirt to a skeleton basque, which is made of lining muslin. Notice the large arm-holes and the

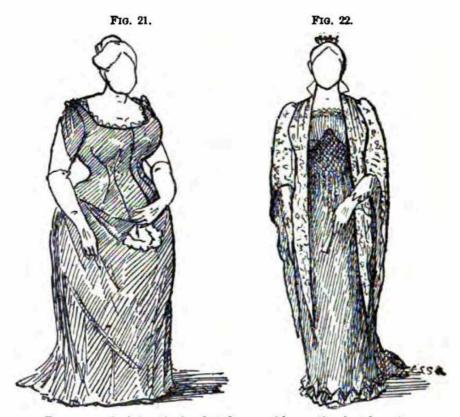


The present dress, in its worst form, consisting of twelve different articles, five hanging from the waist and four from the shoulders. (Modified from N. Y. Sun.)

broad bearing over the shoulders. This broad bearing is important, since a woman cannot wear suspenders to support her skirts. The suspender cannot run down in front where a man's does because of the breast. The breast displaces the strap outward, where it can only cut and chafe.

Notice chiefly that we have thus done away with bands, with weight carried mostly on the hips and abdomen, and with the overlapping of upper and lower garments. The result is as great a gain in grace as it is in comfort, in speed of dressing, and in health. And the chief gain of all lies in the fact that we have reduced the total number of garments from one-half to two-thirds—from nine to four, for example.

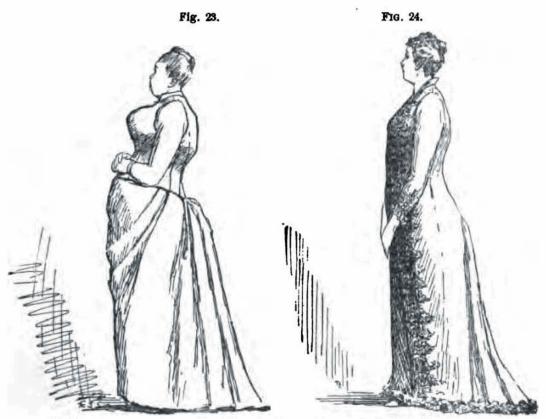
As to cost. The first change is an expense to be considered, but the outfit is much more economical in the end, and saves wash-bills. Moreover these garments can be bought as men buy theirs, and save making at home.



Two ways of solving the hardest dress-problem. (Steele-Adams.)

As to fit. A bodice may be kept moderately trim by slender bones in the seams, but it is better in making these changes in costume not to follow the most common styles. To conform to the different conditions of the new method and to get the best result, from the standpoint of art and of hygiene, the scheme of dress design should be remodelled. The ordinary basque or waist presupposes the corset; its lines are

corset lines; its seams are corset seams. Do not let us deceive any woman into believing that she can successfully do away with the corset and still achieve a corset fit and figure. However well she may think she succeeds by the use of bones in the seams and other devices, the "dreadful horizontal wrinkle" is still liable to show itself, except in the case of a few women whose carriage is so good and who sit so upright that slouching never occurs.



Making the worst of it and making the best of it; emphasizing bad points versus concealing them. (Steele-Adams.)

Breast support. Of course the chief difficulty is with women who are stout. To figures like those of Ellen Terry or Sarah Bernhardt—women who abjure stays—loose and flowing drapery is readily adapted, and they need consider less elaborately the question of fit than that of fitness. But patients with largely developed or flabby breasts rightly

demand that we should provide a scheme of costume that will supports such breasts and prevent the greatest ungainliness that any costume can show. In such cases a health waist is sometimes a necessity, but there are breast supporters that accomplish the same end, without constriction of the lower chest or abdomen, by hanging the weight from the shoulders. Such a supporter should be light, should be adjustable and elastic, and should have no tight horizontal band around the body. One form that is reasonable in price (from one dollar to a dollar and a half) and that seems to meet these requirements is the Newell pattern, made at 244 Dickey Avenue, Chicago. The Butterick pattern firm also have a device called Empire Stays, which sometimes acts well. Let it be clearly understood, however, that the delicate muscular tissue found all over the female breast can be so developed as to support and give fine form to almost any breast, and that in all cases except the most aggravated we shall expect by degrees to do away with support, and to depend largely on the careful fit of each garment and of the upper part of the dress and dress lining, which should succeed in giving apparent fixedness without in the least compressing the trunk below.

Stockings and garters. How to support a woman's stockings is no easy matter to decide. Garters are not allowable, as the constant use of them entails obstruction to the circulation, and possibly varicose veins. Yet any support running up the side of the leg and attached above to one of the garments is a drag and a very uncomfortable strain at times. This latter way is no doubt the better way, but it is only a partial answer to the question. Some women solve the difficulty by wearing tights with (stocking) feet, a garment reaching from the toes to the waist, but this is expensive because the feet wear out soonest. Others wear black underclothes and men's short socks of the same color.

The divided skirt suits some individuals, and accomplishes the object of partly closing in the clothing below to secure warmth; but compared with equestrian tights the end is at-

Fig. 25.



Beauty, ease, comfort, health! (Steele-Adams.)

tained at the cost of considerable weight and bulk of material, since the folds hang thick between the legs. It is true, however, that the Turkish trousers which constitute the most commonly used gymnasium suit make a comfortable dress when worn with no skirt outside, and it is amusing to see the weary girl skip and dance in her freedom when she dons it—so I am told.

When it is deemed necessary to start the change by degrees the following schedule may be checked, as the second in desirability:

The clothing is to consist of

- 1. Combination undergarment (vest and drawers in one piece), high neck, long sleeves, for winter; low neck, short sleeves for summer if preferred. Silk, wool, or Jaros; merino.
  - 2. Jenness-Miller or Equipoise waist.
- 3. Muslin waist and skirt in one piece; or, instead, muslin waist and drawers in one piece.
- 4. Equestrian tights, to replace warm petticoats (or divided skirt).
- 5. Dress, either princess or else having every skirt, if separate from basque, on a gown-form or its own waist.

There is a certain number of our patients from whom we may not remove the corset at once because they suffer persistently with backache or other distresses when we do so, and with whom we shall be obliged to proceed by slower stages; and this may be called the third method. These stages will consist in:

First, the corset loosened to the waist-measure which the patient will be found to have after taking a long breath, together with the enlargement of the waist-bands to the same degree, and lessening of the number of skirts worn.

The second step will be the substitution of a health waist like the Equipoise or Jenness-Miller, in the place of a corset.

And the third step will be to adopt the radical change which we have given in detail. But we must not expect that we can push a patient through these steps with any rapidity or satisfaction to either patient or doctor unless the weakened muscles are strengthened by regular out-door exercises or certain special gymnastic training, to properly develop the muscles of the trunk.

Dr. W. L. Savage, of New York, has kindly laid out for me a few simple home exercises which any woman can undertake in bed each morning and evening, and these are given further on.

There are several drawbacks or obstacles in our way which we should frankly face. In doing away with the corset, the corset-dress-shape must go, and all dresses must be remodelled to the body-shape. This involves better body-shapes, more erectness, the ability to stand upright without the support of a corset, and a change from flabby contours to muscular and well-developed outlines. It involves more artistic and better designed costume, since it adapts the costume to the individual and not the individual to the set fashion. Lastly, it requires that each individual shall study herself and what becomes her best, and she will dress, in consequence, more becomingly, as well as more hygienically. My converts rarely relapse.

All this is no mere theory. It is practical experience. It works, and works well. From the actress who calculates by thousands of dollars to the shop girl who figures in dimes, it is done daily. It is entirely worth while, and it means comfort and freedom, my patients declare. It is essential, indispensable, imperative—this we must declare who are called to treat pelvic disease; and this teaching it is our duty continually to proclaim until our voice is heard, and the imperious goddess Fashion shall join hands with our fair and graceful Hygeia.

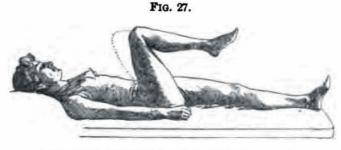
## Exercises for the Abdominal Muscles.

1 a. Lying on the back in bed, raising the head and shoulders a few inches off the pillow, hold the head in that position steadily for a moment, then slowly drop back again to the pillow. Repeat and rest. Begin with five twos, gradually

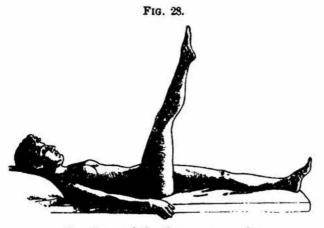
increase to five fives. After a few days or weeks, when this exercise has grown easy, substitute



Exercise for the abdominal muscles.



Exercise for the abdominal and thigh muscles.



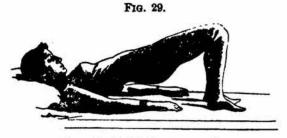
Heavier work for the same muscles.

1 b. Fix the feet against the foot-board of the bed and rise to a sitting position, using at first the pillow behind the head to make the exercise easier, and doing it later with no pillow. Five fives slowly.

- 2 a. Lying on the back, bring the bent knee as far toward the face as it will readily go, and then force it an inch or two further. Straighten the legs slowly; repeat with the other leg; five times with each. This is much easier than 2 b. Later substitute 2 b. Lying on the back raise the legs from horizontal to perpendicular slowly in alternation. Ten times each.
- 3. Lying on the back, place a weight, such as a flat-iron, sand bag, or heavy book on the abdomen; by deep abdominal breathing raise the object as many inches as possible; hold it up a few seconds and then slowly lower it by letting the breath go.

#### Weak Back Muscles.

1. Lying on the back with the feet drawn up, the bips are raised until the thigh is in line with the body, are held



Exercise for the back muscles.

FIG. 30.



Exercise for the back muscles.

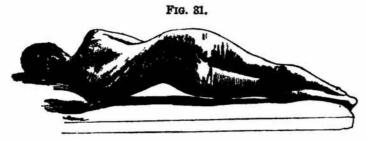
quietly a moment in that position, and slowly dropped back to the bed again; rest; repeat five to ten times.

2. Lying full length on the abdomen with arms along the sides, breathe deeply, then raise the head and shoulders clear

of the pillow, hold still a moment and slowly lower; rest; repeat five to ten times.

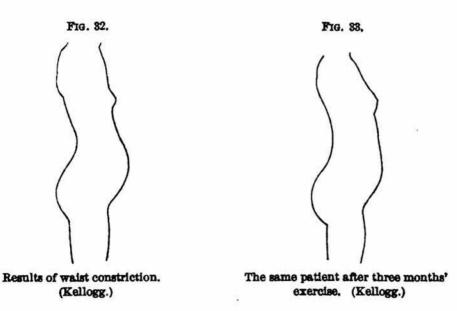
When all these become easy a severer task may be given, such as

3. Lifting the body off the bed, resting on the elbows and toes, resting and repeating three to five times with the rest between each.



Exercise for the muscles of the side of the trunk.

4. For the muscles in the side of the trunk the patient is to lie on the side and, while keeping the shoulder and lower leg on the bed, to lift the hips clear of it. Five fives.



All these will accomplish something, and, indeed, if persisted in will accomplish much. But such exercise is irksome without company and competition. To be interesting, exer-

cise must have an element of competition and sociability, as games have. It should be graded carefully and should be supervised by well-trained teachers. It is as unwise to prescribe tennis without restrictions for the ordinary city girl as it is to allow unlimited boat-racing to the college man. Either involves spurting and hard strain unless carefully watched.

In summer there are many sports available, such as swimming, surf bathing, rowing, archery, tennis, horseback riding, and cycling. Suitable dress must be insisted on. A loose blouse without a corset and a skirt with no tight waist band, or a bathing suit without sleeves or cumbrous skirt must be specified. In winter the gymnasium offers class work and individual work, running, swimming, sparring, fencing. The semi-annual measurement, with charting, is an incentive to body building and fosters system and science in prescribing exercises to the end of symmetry.

When a gymnasium is not at hand it is not difficult to find instructors for private classes at moderate rates, in these days when women are graduated from the physical culture schools in considerable numbers. Six or eight girls can meet three times a week, get into costume, work half that time with light dumb-bells and with skipping ropes as a substitute for a running track, and then take a lesson with gloves or foils.

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### DISCUSSION.

DR. A. F. A. King, of Washington.—The subject is an exceedingly fascinating one, but I am sure that I have nothing to add of value to the paper. We, and our sisters, I think, may congratulate ourselves that the time appears at last coming when there will be a reform in women's dress, and I have no doubt that when such a reformation is made they will get rid of many of the ailments which we doctors have to treat. I think that we are under great obligations to the Doctor for his paper.

DR. E. C. DUDLEY, of Chicago.—I have really nothing to say in reference to the paper in the way of discussion. It seems to me that it is a very timely one, and it is, perhaps, not too much to say that, although it does not deal with the grave subject of coliotomy, it does deal with one of the most important subjects which have been brought before the Society at this meeting. Therefore, instead of accepting the Doctor's apology for introducing the subject, I move that he be given a vote of thanks for having brought this important subject to our attention.

[The motion was adopted.]