

with the palms facing outwards. Begin again and repeat half a dozen times.

4. Keep the arms down, the palms touching the sides, slowly turn the palms outwards as far as they will go, and slowly bring them back to the sides. This may be done six or eight times. This exercise, apparently so simple, expands the chest and presses together the shoulder blades.

The report<sup>3</sup> of the Interdepartmental Committee on the model course of physical exercises presented to Parliament last year fully recognized the importance of breathing exercises, and the following passages from the syllabus drawn up by the Committee may be quoted:

The object of such exercises is the healthy functioning of the lungs, not merely increase of chest capacity. The vital measurement is not that of chest capacity simply, but of the difference between the full and the empty chest. Hence breathing exercises—which may, however, be conjoined with the exercises of the upper limbs already referred to—are the more important, and the power of emptying the chest should be cultivated.

The breathing exercises as mere imitative movements may be begun on the child's first admission to school, the formation of habits of correct nasal breathing being a matter of as great importance as any other department of infant school work.

It may be useful to reproduce here the syllabus of breathing exercises recommended by the Committee.

#### DEEP BREATHING EXERCISES.

These exercises are of great value, and should form part of the daily training of every scholar. It is of great importance that the correct method of nasal breathing should be taught from the beginning of school life.

1. *For Infants*, a simple imitative exercise is the most easily acquired.

The infants, standing or sitting, and watching the teacher, place the left hand over the pit of the stomach and breathe in as she does, noticing the hand rise during inhalation. The child then breathes out slowly, the hand at the same time sinking. On each occasion the teacher must watch the class carefully, and note that all the mouths are firmly closed, and that all breathing is through the nostrils only.

This exercise should be repeated about six times at least twice daily.

2. *For Older Pupils*.

The teacher, starting from the position of attention, should see that all the mouths are firmly shut; then on the command *Breathe-In* (slowly given) instruct the pupils to breathe in slowly and deeply through the nostrils only, until the chest is fully expanded; then on the command *Breathe-Out* (slowly given) to breathe out quietly and steadily; this exercise should be repeated about ten times at least twice daily. When the exercise is repeated the commands *In*, *Out* only should be used.

*Note*—Care must be taken that during inhalation the head and chest do not throw too far back, nor the abdomen thrust forward.

When the exercise has been thoroughly acquired, it can be gradually combined with the slow arm movements, which bring into play the auxiliary muscles of respiration.

3. *Combined Breathing and Slow Arm Exercises.*

When a combined movement is used, the caution, *With Deep Breathing*, should always precede the command for the arm movements—for example, *With Deep Breathing, Arms Sideways Raise*. The arm movements employed should follow the rhythm of normal respiration (inhalation, exhalation—pause; inhalation, exhalation—pause), etc., and the breathing act must not be made to follow any artificial or arbitrary rhythm like that of music. It is also impossible that all members of a class should do the movements in absolute unison, for no two persons breathe naturally exactly alike.

The most suitable arm movements to combine with the deep breathing exercises are:

*With Deep Breathing—Arms Sideways Raising.*

*With Deep Breathing, Arms Sideways—Raise (One).*—Raise the arms as in 50, and at the same time breathe in slowly through the nostrils until the chest is fully expanded.

*Lower (Two).*—Breathe out naturally, and at the same time lower the arms to the sides.

(a) This exercise may also be combined with *Heels Raising*, the commands being *With Deep Breathing, Arms Sideways Raising, Heels and Arms—Raise (One); Lower (Two)*.

*With Deep Breathing—Arms Sideways and Upward Raising.*

(To be done as a continuous movement.)

*With Deep Breathing, Arms Sideways and Upward—Raise (One).*—Raise the arms as in 53, and at the same time breathe in slowly through the nostrils until the chest is fully expanded.

*Lower (Two)*—Breathe out naturally, and at the same time lower the arms sideways and downward.

(a) This exercise may also be combined with *Heels Raising*, the commands being *With Deep Breathing, Arms Sideways and Upward, Heels and Arms—Raise (One); Lower (Two)*.

<sup>3</sup> London: Wyman and Sons; Edinburgh: Oliver and Boyd; and Dublin: E. Ponsonby, 1904. [Ed. 3032]. 6d. The report was noticed in the BRITISH MEDICAL JOURNAL, April 30th, 1904, p. 1026.

*With Deep Breathing—Arms Circling.*

*With Deep Breathing, Arms Circling—Raise (One).*—Raise the arms as in 52 and, at the same time, breathe in slowly through the nostrils until the chest is fully expanded.

*Lower (Two).*—Breathe out naturally, and at the same time lower the arms to the sides as in 54.

(a) This exercise may also be combined with *Heels Raising*, the commands being *With Deep Breathing, Arms Circling, Heels and Arms—Raise (One); Lower (Two)*.

*N.B.* Breathing Exercises should always be taken at the end of a physical training lesson, in order to prepare for rest, and also to aid in the elimination of the carbonic acid accumulated by the repeated contractions of the muscles during the lesson. They may also with advantage be taken in the course of physical training lessons or other school work.

The following are the Exercises 50, 52, 53, 54 referred to above:

50.—*Arms Sideways Raising.*

*Arms Sideways—Raise (One).*—Raise the arms sideways in line with the shoulders, fingers extended, and palms downward.

*Downward—Lower (Two).*—Lower the arms to the sides.

(a) *Heels Raising at One and Lowering at Two* may be added later, the commands then being *With Heels Raising, Arms Sideways—Raise; Downward—Lower*.

52.—*Arms Forward and Upward Raising.*

*Arms Forward and Upward—Raise (One).*—Raise the arms forward and continue the movement upward till the arms are in the *Upward Stretch* position.

*Forward and Downward—Lower (Two).*—Lower the arms forward and downward to the sides, keeping the arms parallel and the palms inward.

53.—*Arms Sideways and Upward Raising.*

*Arms Sideways—Raise (One).*—As in 50.

*Upward—Raise (Two).*—Keeping the arms straight and well back, turn the palms smartly upward and immediately raise the arms until they are vertical above the shoulders.

*Sideways—Lower (Three).*—Lower the arms sideways to the level of the shoulders, keeping the palms upward and arms well drawn back.

*Downward—Lower (Four).*—Turn the palms smartly downward and lower the arms to the sides.

After some practice the *Sideways and Upward Raising* should be done in one continuous movement on the command *Arms Sideways and Upward—Raise (One)* the palms being turned upward on passing the level of the shoulder. On the command *Sideways and Downward—Lower (Two)* the arms should be brought to the position of *Attention* by reversing the movement.

(a) *Heels Raising at One and Lowering at Two* may be added later, the commands then being *With Heels Raising, Arms Sideways and Upward—Raise; Sideways and Downward—Lower*.

54.—*Arms Circling.*

*Arms Forward and Upward—Raise (One).*—Raise the arms slowly forward and upward as in 52.

*Sideways and Downward—Lower (Two).*—Keeping the arms well back, lower them sideways and downward as in 53.

(a) *Heels Raising at One and Lowering at Two* may be added later, the commands then being *With Heels Raising, Arms Forward and Upward—Raise; Sideways and Downward—Lower*.

## SYPHILIS AND INSANITY.

### A CORRECTION.

In the article on the Prevalence and Prevention of Syphilis, published in the BRITISH MEDICAL JOURNAL of January 14th, 1905, page 97, it was stated that Dr. Mott, when questioned as to the relation of syphilis in insanity, said that syphilis was the cause in between 25 and 45 per cent. of the men admitted. As this may give an erroneous impression of the view expressed by Dr. Mott, we quote the question and answer from the *Minutes of Evidence*:

10,479. You trace syphilis as one of the causes of most of the organic diseases of the nervous system?—I would not say most, but I find in a great many of the cases of men between 25 and 45 coming into the hospitals, syphilis is the cause.

## THE GRIFFITHS TESTIMONIAL FUND.

DR. A. P. FIDDIAN (23, The Walk, Cardiff), Treasurer of this Fund, has received the following further subscriptions:

Amount previously acknowledged	£	s.	d.
Dr. L. H. Villet	...	30	18 6
Dr. W. C. Humphreys	...	0	10 0
Dr. Hastings Torney	...	1	1 0
Dr. T. D. Griffiths	...	0	10 6
Dr. T. D. Griffiths	...	2	2 0
Dr. Evan Jones	...	0	10 6
Dr. J. D. M.	...	0	10 6
Dr. J. Michell Clarke	...	1	1 0

The object and particulars of the fund were stated in our columns of January 21st, 1905, p. 160.