

be accurately measured and governed. The machines can be adapted to the strength of the strong, or the weakness of the weak, that the greatest benefit may be obtained without the danger of overstraining.

The value of athletic sports as a therapeutic agent is questionable or a least very limited. The competitive element and the danger of strain and over-exertion would make them rather too drastic to be much used in this way by the physician. But there is an exercise that might be classed as athletic, the one nearly always prescribed by physicians, I refer to walking.

As usually taken, a walk does not exercise the muscles vigorously enough to produce very much effect. The skin is not stimulated sufficiently to act as an excretory organ, and the man comes in dull, heavy and tired out, instead of having the bright warm sensation of strength that is felt after a half hour of brisk hard work, followed by a rub down. The great advantage claimed for walking, is the open air; that is good, but a shorter time given to more vigorous and more evenly distributed work will give better results.

There are three effects of exercise that would commend it as a therapeutic agent.

1st. It relieves congestions by equalizing the circulation.

2nd. It acts as a sedative to the nervous system probably through its action on the circulation.

3rd. It strengthens and enlarges muscles, bones, and ligaments, and would thus apply to all conditions caused by weakness or inequality of development.

If the education of a child could be begun as suggested by Oliver Wendell Holmes, 100 years before its birth, there would probably be no necessity for the application of exercise in therapeutics and even now its necessity will be greatly lessened by incorporating exercise in our educational systems. By the gymnastic games of the Kindergarten, children are made strong and healthy from an early age and troubles arising from weakness or malnutrition are prevented.

In schools where systematic physical training has gone hand in hand with mental throughout all grades, the marked improv-