The secretary next submitted, in outline, a set of

RULES FOR THE CARE OF THE EYES.

"When writing, reading, drawing, sewing, etc., always take care that—

"(*a.*) The room is comfortably cool, and the feet warm;

"(*b.*) There is nothing tight about the neck:

"(*c.*) There is plenty of light without dazzling the eyes;

"(*d.*) The sun does not shine directly on the object we are at work upon;

"(*e.*) The light does not come from in front; it is best when it comes over the left shoulder;

"(*f.*) The head is not very much bent over the work;

"(*g.*) The page is nearly perpendicular to the line of sight; that is, that the eye is nearly opposite the middle of the page, for an object held slanting is not seen so clearly.

"(*h.*) That the page, or other object, is not less than fifteen inches from the eye.

"Near-sightedness is apt to increase rapidly when a person wears, in reading, the glasses intended to enable him to see distant objects.

"In any case, when the eyes have any defect, avoid fine needle-work, drawing of fine maps, and all such work, except for very short tasks, not exceeding half an hour each, and in the morning.

"Never study or write before breakfast by candle light.

"Do not lie down when reading.

"If your eyes are aching from fire-light, from looking at the snow, from over-work or other causes, a pair of coloured glasses may be advised to be used for a while. Light blue or grayish blue is the best shade, but these glasses are likely to be abused, and usually, are not to be worn except under medical advice. Almost all those persons who continue to wear coloured glasses, having perhaps first received advice to wear them from medical men, would be better without them. Travelling vendors of spectacles are not to be trusted; their wares are apt to be recommended as ignorantly and indiscriminately as in the times of the 'Vicar of Wakefield.'

"If you have to hold the pages of *Harper's Magazine* nearer than fifteen inches in order to read it easily, it is probable that you are quite near-sighted. If you have to hold it two or three feet away before you see easily, you are probably far-sighted. In either case, it is very desirable to consult a physician before getting a pair of glasses, for a *misfit* may permanently injure your eyes.

"Never play tricks with the eyes, as squinting or rolling them.

"The eyes are often troublesome when the stomach is out of order.

"Avoid reading or sewing by twilight or when debilitated by recent illness, especially fever.

"Every sempstress ought to have a cutting-out table, to place her work on such a plane with reference to the line of vision as to make it possible to exercise a close scrutiny without bending the head or the figure much forward.

"Usually, except for aged persons or chronic invalids, the winter temperature in work-rooms ought not to exceed 60° or 65°. To sit with impunity in a room at a lower temperature, some added clothing will be necessary. The feet of a student or sempstress should be kept comfortably warm while tasks are being done. Slippers are bad. In winter the temperature of the lower part of the room is apt to be 10° or 15° lower than that of the upper.

"It is indispensable in all forms of labour requiring the exercise of vision of minute objects, that the worker should rise from his task now and then, take a few deep inspirations with closed mouth, stretch the frame out into the most erect posture, throw the arms backward and forward, and if possible, step to a window or into the open air, if only for a moment. Two desks or tables in a room are valuable for a student; one to stand at, the other to sit at."

THE NERVOUS SYSTEM AS AFFECTED BY SCHOOL LIFE.

This was also the subject of a special paper by the secretary, and, in part, as follows:—

"How many school influences directly benefit the nervous system?

"In the first place, the school may provide for a reasonable degree of physical exercise, which every scholar should perform unless excused by his physician. There is very little chance for healthy sports in great cities, and it is precisely in these cities that the greatest number of hours is spent in schools. If civilization takes from its members the country air and country sports, which are the natural means of health, civilization is bound to make good the loss to those who are too poor to make it good for themselves; and that means nine-tenths of the people in cities.

"As regards fresh air, and other hygienic essentials of schools, the attempt is sometimes made to excuse deficiencies by saying 'that the scholars are better off in school than in their own wretched houses.'

"This excuse is apt to prove fallacious. It is our duty to ask, when such remarks are made, '*How much* better off are they when in school?' Is the air at home charged with fourteen parts of impurity, for example, and that in school with only twelve or thirteen parts? Such a comparison reflects no credit upon the school; if both places are blamable, then our duty obviously begins at the school, which we build and furnish, and to which we compel the children to come.

"But let us not delay over this sufficiently obvious point. What we desire to know now is, whether a thoroughly good school is a positive benefit to physical health. Granting that the air is pure, and the surroundings are all hygienically perfect, are the work and the discipline of schools beneficial *per se?*

"And first, as to the work, the simple mental work; is that capable of doing positive good?

"The answer to this question is as follows: Pure mental work, quite free from what is called 'feeling,' is not possible to a conscious human being; but pure work accompanied by the simple feeling of satisfaction termed 'interest,' in a moderate degree, acts on the system like any other healthy work, by consuming the chemical elements; if the brain is at work, one sort of change goes on, if the muscles, another sort; but brain work and muscle work equally, create a demand for fresh nourishment, and this demand constitutes a healthy appetite for food. It is fully understood by 'brain-workers,' that certain studies tax the endurance of the entire system as much as the severest bodily toil. Persons with good brains are fatigued by mental labour as much as persons with good muscles are by bodily labour. Now, I do not mention fatigue as a desirable thing, but the processes which lead to fatigue are good if kept within reasonable bounds, and I hold it to be physiologically correct, that these processes are much alike, though not identical, in the acts of thinking and of muscular motion. Indeed, voluntary muscular motion is absolutely dependent upon a supply of nervous force, which is probably generated in a portion of brain lying within the temples. When muscles are palsied, their nerves are pretty sure to be affected; and when nerves, their muscles; hence it is often extremely difficult to say whether a given disease of either organ begins in nervous tissue or in muscular tissue.

"Mental occupation, like all other natural occupations, is therefore good; or at least it has a presumption in its favour. But the value of this work is vastly enchanced by the methodical way in which a good school enforces its performance. Our teachers, in many cases, deserve the greatest credit for their judicious firmness in restraining from over-work, as well as requiring the full amount of work; and I know well that adult students would often be benefited by such regulations as would prevent them from over-driving their intellectual machine.

"Why, then, can we not make our children work with their brains and trust nature to develop their muscles? I believe there is a special reason why we may not do this; and somewhat as follows: The nervous organs are not peculiar in requiring nutrition; they are dependent upon the blood, which conveys to them what is required to repair waste; and the blood is again dependent upon the heart and the blood vessels, which pump it to the points of supply. Now, the heart and the blood vessels are muscular organs; their capacity to force the nutritious fluid to its destination depends on the amount and the good condition of the muscular tissues they contain. A strong pulse is needed by a strong brain, and if we want a strong pulse we must strengthen the heart. And in no way can this be done except by muscular exercise, which drives the blood on to the heart, distending and stimulating it in such a manner that the organ gradually increases in size and firmness, growing vigorous in sympathy with the other muscles of the body. Of the danger of excess in this practice I will speak later.

"Of the muscular structures of the chest there are some which have no particular use except to assist in breathing; these, the respiratory muscles, need a similar development through training, in order that pure air may be largely introduced into the lungs, a process which you know to be indispensable to the proper nutrition