

OLIVER WENDELL HOLMES.

THE famous poet, whose name was a household word on two continents, passed away peacefully at his Boston home on October 7 in the midst of his family. August 29 last he celebrated his eighty-fifth birthday. At that time he said, after speaking of regaining his health: "The twelfth septennial period has always seemed to me as one of the natural boundaries of life. One who has lived to complete his eighty-fourth year has had his full share, even for an old man's allowance. Whatever is granted over that is a prodigal indulgence on the part of nature."

Oliver Wendell Holmes was born at Cambridge, Mass., August 29, 1809, of a very old New England family. He was sent to the Cambridge Primary School. Later he entered Harvard College, and was a member of the class of 1829. In college he was an excellent student and distinguished himself in literature. After his graduation he studied law for a year; he then took up the study of medicine in Boston, Edinburgh and Paris. In 1837 he began practicing in Cambridge. Two years later he was called to the chair of anatomy and physiology of Dartmouth College, where he stayed a year; he then returned to Boston and began to practice again. In 1847 he became Parkman Professor of Physiology and Anatomy in Harvard College. In addition to this honorable position he kept up an extensive practice in Boston. Yet for all this he found time to place himself in the very front rank of American literary men. In addition to his medical work he was essayist, editor, poet, novelist and popular lecturer. The doctor's medical writings gave him an enviable reputation in the scientific world.

In 1857 the Atlantic Monthly was started, and Dr. Holmes was one of the first contributors. He began publishing a series of essays which he had begun years before, entitled, "The Autocrat of the Breakfast Table." The success of the magazine was assured by these inimitable essays, which discussed with refined wit and sound philosophy the various social, moral and intellectual topics of the day. As a poet he was no less famous, and his "One-Hoss Shay" need only be cited in proof of this. "Elsie Venner" and "The Guardian Angel" are examples of some of the professor's pure works of fiction. He was an excellent orator and was early drafted to the lecture platform in the palmy days of the lyceum system. Since his death the great presses of his publishers have run day and night to supply the demand of the public for his writings. It would be difficult to find any home in America that makes any pretensions to culture where Dr. Holmes' writings are not either owned or read. Hardly any American man of letters was better known in England, and thousands mourn his loss.

MODERN ABUSES OF THE EYE.

By G. W. McFATRICH, M.D., Chicago, Ill.

THE eye is the organ of sight. It is situated in a large bony cavity (the orbital cavity) in the upper part of the face. Surrounded as it is by bony prominences, and having at its disposal two movable lids, each guarded along its edge, in the healthy state, by lashes, it can readily be seen that it is as secure from injury as it possibly can be. There it can boldly stand and investigate objects at the pleasure of its owner.

Rays of light emanating from an object fall upon the anterior surface of the eye (cornea) and pass through its refracting media, whose duty it is to so direct them that they will meet at a common point upon the retina; which, in the normal eye, is strictly attended to.

The retina, which is practically the expanded termination of the optic nerve, is a delicate membrane lining the interior of the back part of the eye, and upon which, if true to its trust, a correct impression of the object is made, which in turn is transmitted through the optic nerve to the brain, and the mind becomes sensible of the object to which attention is directed.

Not unlike other useful members, the eyes are often objects of serious abuse. In some parts of Europe parents not unfrequently have applied hot irons to the eyes of their children, in order to make of them pitiable objects of charity; and send them out to beg, that philanthropic persons may drop a few pennies into their cups. Such are the atrocious crimes of some of the lower classes, but to what state of depravity has a man descended who, either from shiftlessness or cowardice, performs, or causes to be performed, like mutilation upon his own body, that the arduous and dangerous tasks of military duty may be escaped.

But let us, for a few brief moments, pause and consider the abuses to which this delicate and intricate organ is constantly being subjected in this civilized land. How discouraging it is to note that as civilization and education advance, abnormalities of the eye relatively increase.

To corroborate this startling statement, one has but to consult statistics. It is often and quite plausibly argued that as civilization and education advance, knowledge in diseases of the eye increases, and consequently many irregularities of sight, which in former times were unheeded, or from lack of knowledge were either neglected or maltreated, are now diagnosed or corrected; and while this argument is a strong one, yet it grieves me much to say, it does not modify or detract from the statement that the high pressure and competitive examination of our present educational system are responsible for many cases of abnormal vision, and that the advancement of the same is producing a relative increase of the troubles.

Cinders under the lids, instead of being promptly removed, are too often allowed to remain where they have lodged until a severe inflammation is excited, and the patient yielding to an almost irresistible desire to rub the eye, more deeply embeds the cinder, and augments the inflammation, until finally a severe case of conjunctivitis, which often results seriously, is established. It is the duty of every physician to instruct his patrons to either remove these foreign bodies themselves, or to have them removed by their physician. Patients can very frequently remove cinders by drawing the upper lid down over the lower, and making gentle pressure while the lid is allowed to slide back into place. Care must be taken not to

handle the eye too roughly, and the patient or his friends must not work too long. If any difficulty is encountered, he should go at once to the physician, as those who are not expert often do the eye more harm in removing the foreign body than it would itself do if allowed to remain. At any rate, a foreign body under the lid should be promptly and judiciously removed.

Ulcers of the cornea are very frequently allowed to progress to an alarming extent before any attention whatever is given them. Since micro-organisms may enter the tissues of the cornea through a slight abrasion and produce an angry, dangerous ulcer in an incredibly short time, and produce irreparable damage, it behooves us to be on the lookout for troubles of this nature. Usually the symptoms of ulcer of the cornea are so prominent—extreme pain, intolerance of light, hazy appearance of the cornea, etc.—that very little difficulty is encountered in arriving at a diagnosis, but it often transpires that no other symptom than a sensation of itching precedes an ulcer of the cornea; and as I am writing this I am painfully reminded of a young man who came to me one morning with an ulcer which had already involved one half of the cornea. The iris had prolapsed and was drawn into the wound, and before the terrible process could be checked fully three-fourths of the cornea had been destroyed. At the present time a large, opaque spot, fully two-thirds the size of the cornea, remains, and I do not think the eye will ever be of much service to him, unless an artificial pupil be made behind some portion of the cornea which is still transparent.

This man stated that a sensation of itching was present about twenty-four hours previous to his coming to me. This was in the morning, and by night a slight stinging pain was present. The next morning he arose with a well developed violent and progressive ulcer of the cornea.

The iris is a thin, delicate, muscular curtain, which is suspended in the eye between the cornea and the lens, and is that structure which gives to the eyes color—brown, blue, hazel, etc. It is perforated near its center by a small, round aperture, the pupil. This aperture is made smaller or larger, according to the demands of the retina for more or less light. It is imperative that the free movement of this intricate muscular curtain should not be interfered with. Very often this little structure becomes inflamed (iritis), and in consequence of which a plastic inflammatory deposit is thrown out and the iris becomes adherent to the capsule of the lens, which is situated immediately behind it. A plastic material is also deposited between the fibers of the iris itself, when it becomes partially, if not totally, immovable; and not infrequently forty-eight hours are all that is required to render it incurably adherent, when the vision will be permanently impaired; where, if a solution of atropine (gr. ij to 3 j) had been instilled into the eye at the outset, this complication would have been avoided.

Iritis usually commences with pain in the eye itself and in the immediate vicinity, of a neuralgic or rheumatic character; intolerance of light; and soon the white portion of the eye becomes red, with numerous delicate blood vessels running up almost to the cornea, where they apparently suddenly stop. At this point they penetrate the eye ball and nourish the iris. Many cases, however, become fully developed with no other symptom than a slight rheumatic pain as the eye is rotated from side to side.

Another of the many abuses to which the eye is subjected is over-taxation. Some persons use their eyes all day and then set up for two, three or four hours at night and use them by artificial light. It is needless to say that this practice is harmful. The eyes soon begin to smart, tears are secreted so rapidly that the ducts are unable to carry them away, and, as a consequence, they run over on the cheeks and reading becomes very annoying.

Let us see what is taking place during this time. The conjunctiva is becoming swollen, red and inflamed, and if a tendency to granulated eyelids exists, a rich soil is here furnished. The inflammation may also extend through the lachrymal sac to the nasal duct which communicates with the nose; swelling of the membrane lining the tube takes place, and if continued long enough remains permanently so, and the patient either has to be annoyed with tears running over the cheeks or has to go through a long and painful course of treatment for months, while if he had ceased to abuse his eyes when they warned him of approaching danger, he would, in all probability, have avoided his suffering.

This article is intended to call the attention of the reader to the fact that, in our present age, eyes are frightfully misused. It often makes me feel that some persons do not deserve to have eyes; and if these few words will be the means of one pair of eyes receiving more care and less neglect, the writer will feel well paid for his trouble.—Eclectic Medical Journal.

[FROM THE OUTLOOK.]

HEARING WITH THE EYES.

By S. MILLINGTON MILLER, M.D.

SOME ten years ago a paper was contributed to a learned society's proceedings by that distinguished inventor, Dr. A. Graham Bell. He explained at length the very curious results (statistic) of his special investigations showing that the manual method of instructing the deaf, which naturally rendered them a class by themselves, was creating a deaf and dumb species of the human race. Mr. Bell's figures indicated that thirty-three and a third per cent. of the children resulting from the union of deaf men and deaf women were born deaf, and were therefore congenitally dumb.

Much more conclusive and exhaustive figures, enforcing even more unequivocally the same conclusion, have been secured since then, and were intended for publication; but the gentleman in whose hands they were placed has not used them himself, and has not so far seen fit to permit their use by others. He is a believer in the manual method of the instruction of the deaf, and may naturally feel that the statistics which he holds form a grave argument against the very reason d'être and permanence of that method. (It is but fair to this gentleman, Dr. Fay, of the National Gallaudet College, in Washington, D. C., to add that he has lately written to the Philadelphia Press

disclaiming any intention to delay or obstruct, and promising the early publication of this interesting matter.)

The oral system of instructing the deaf enables them to read speech from lip and tongue movements, and teaches them to converse in a fairly modulated voice with the world at large. The manual method supplies a medium (the single-hand alphabet and conventional or pantomimic signs) by which the deaf may understand and converse with each other and with their teachers, but it renders them no further aid than the writing pad in their efforts to understand the general public; or to carry on an interchange of thought with it.

When it is known that one in every twelve hundred units of population is deaf, and that fully two-thirds of this total (36,000—that is, one in every eight hundred) are either born deaf or become so under two years of age, and are therefore dumb, so far as articulate speech is concerned, it will be plain that it is a matter of national sanitary importance that this unfortunate class should receive such instruction as will at once best develop their minds and least isolate them from their fellows.

There have been several methods devised for instructing the deaf. The oral method was first invented in Germany by Samuel Heinicke about the time of the French revolution. It had already been introduced into Spain in the sixteenth century by Ponce-de-Leon (no relation of the great discoverer, so far as known). The Abbe de l'Epee invented and taught the symbolical sign system in France at approximately the same date. This system consisted entirely in a natural and conventional series of mimical and symbolical signs. Savages in the earliest times conversed with each other and with strangers largely by means of pantomimic signs. The Frenchman shrugs his shoulders when he desires to convey indifference; we nod our head to indicate "yes," and shake it to signify "no;" we draw our shoulders together and shiver to show that we are chilly or cold. The Abbe de l'Epee adopted all these natural signs, and added others of his own invention which would stand for words or ideas. Taken together they formed his system.

The double-hand alphabet originated in England. It has never obtained any foothold elsewhere, and it is not by any means universally employed even there. Jean Paul Bonet originated and taught the single-hand alphabet in Spain in the first half of the seventeenth century.

There is a school in Rochester, N. Y., where the single-hand alphabet method is taught to the exclusion of everything else. Other manual schools teach a combination of the most expressive and concrete signs which have survived from the system of the Abbe de l'Epee, together with the single-hand manual alphabet. By means of the more or less arbitrary letters formed by the fingers after this alphabet, words are spelled and sentences so constructed. These letters are not in all cases like the letters of the copy book, even when carefully and slowly formed, and when rapidly constructed they fail to convey the least idea to the spectator who is not an adept in the method.

Reading, writing, spelling, arithmetic, geography and other English branches are taught alike in oral and manual sign schools. The only difference between the two is that articulate speech is inculcated in one and not in the other.

The oral system teaches the deaf to speak. In a sign school articulate speech is regarded as an accomplishment. The deaf child is taught to speak primarily by accustoming the eyes to distinguish and remember the movements of the lips and tongue which accompany, or more properly, produce, the vowel and consonant sounds separately, and then that longer or shorter series of lip movements which together form words and sentences. To assist in this education the pupil is taught to hold one hand upon the throat and the other upon the chest of his instructor, in order so to note the various and different vibrations accompanying the various letter or word sounds, and to place his hands in similar positions upon his own body while trying to imitate these sounds. If necessary, the instructor teaches the child how its lips and tongue are naturally fixed while these sounds are formed, by drawing the proper positions of the organs on the blackboard, or, in some cases, by digital manipulation of the child's lips, tongue, etc.

But when the child has grown able to articulate sounds and words by watching the movements of the instructor's lips, it has not yet learned to speak the English language. The objects whose names it has learned to sound are then pointed out to it in connection with the articulation of the name. At the same time the object itself, its written and its spoken name, are all frequently brought into close association, until the child remembers not only the sound of a name, but also its proper application. This is the task imposed upon the instructress of the first year's classes (a class usually consists of from eight to ten children), and it demands endless patience and tact. The teacher must first make the children fond of her. In the second year the child's vocabulary is increased by similar methods, and it is taught to write short letters and essays, and to describe in writing on its slate actions performed by the teacher.

In later years the various English branches are taught, so that at the end of twelve years the boy or girl can speak distinctly, write and compose correctly, and is possessed of all the accomplishments instilled at a regular school.

He who goes through one of the great oral schools sees children who can read the lips when the mouth of the speaker is turned away from them and they command only one corner of it with their eyes; who can thus read readily long and involved sentences rapidly spoken; who can even decipher the words uttered by speaking lips from their shadow thrown sharply on a white wall. Not all the graduates can do this, by any means, but it gives a fair and not an exaggerated idea of the ultimate possibilities of the system, and shows how completely and triumphantly one sense may be rendered able to perform the functions of two.

If these things be true, it must also follow that it would be possible for a gifted graduate of an oral school to enter a regular technical school or college sit in the benches with those whose senses are all perfect, hear what the professor says from watching his lips, and finally graduate and take a degree. Indeed,