

NEGLECT OF THE EYE.

Whatever an ounce of prevention may be to other members of the body, it certainly is worth many pounds of cure to the eye. Like a chronometer watch this delicate organ will stand any amount of use, not to say abuse; but when once thrown off its balance, it very rarely can be brought back to its original perfection of action, or, if it is, it becomes ever after liable to a return of disability of function or the seat of actual disease. One would have supposed from this fact, and from the fact that modern civilization has imposed upon the eye an ever-increasing amount of strain, both as to the actual quantity of work done and the constantly increasing brilliancy and duration of the illumination under which it is performed, that the greatest pains would have been exercised in maintaining the organ in a condition of health, and the greatest care and solicitude used in its treatment when diseased. And yet it is safe to say that there is no organ in the body the welfare of which is so persistently neglected as the eye.

I have known fond and doting mothers take their children of four and five years of age to have their first teeth filled, instead of having them extracted, so that the jaw might not suffer in its due development and become in later years contracted, while the eye, the most intellectual, the most apprehensive, and the most discriminating of all organs, receives not even a passing thought, much less an examination. It never seems to occur to the parents that the principal agent in a child's education is the eye; that though it gains not only in sense of the methods and ways of existence of others, but even the means for the maintenance of its own; nor does it occur to the parents for an instant that many of the mental as well as bodily attributes of a growing child are fashioned, even if they are not created, by the condition of the eye alone.

A child is put to school without the slightest inquiry on the part of the parent, and much less on the part of the teacher, whether it has the normal amount of sight; whether it sees objects sharply and well-defined, or indistinctly and distorted; whether it be near-sighted or far-sighted; whether it sees with one or two eyes; or, finally, if it does see clearly and distinctly, whether it is not using a quantity of nervous force sufficient after a time not only to exhaust the energy of the visual organ, but of the nervous system at large.—*Dr. Edward G. Loring.*

DEATH FROM AN ELECTRIC SHOCK.—An accident of an extraordinary nature occurred on Tuesday night, Jan. 17, 1879, at the Holte theater, Aston, a suburb of Birmingham. The stage is lighted by two electric lights, and when the candles are not burning the connections used for the purpose of crossing the current are hung up over the orchestra. After the performance of the pantomime, Mr. Bruno, the euphonium player, was leaving with the other members of the band, when, presumably out of curiosity, he caught hold of the two brass connections referred to; the man in charge called out to him with the object of warning him of the danger he was incurring. The warning, however, came too late; Mr. Bruno received the full shock of the electric current, generated by a powerful battery which supplies the whole of the lamps in the building and grounds. It is said that the candles not being then burning, Mr. Bruno was unable to disengage himself, and pulled the wire down. The shock rendered him insensible. A medical man was at once sent for, and restoratives were applied, but Mr. Bruno died in about 40 minutes afterwards.—*The Electrician.*

A RECENT course of experiments made to determine the heating power of gas shows that one cubic foot of ordinary 16-candle coal gas will develop 318 heat units, while water gas will give only about 136.6 heat units per cubic foot.

A NOVEL IDEA.

The idea of making a train lay down and take up its own rails as it moves along is not a new one, but an interesting realization of the progress which is being made in that direction is now to be witnessed in the Jardin des Tuileries, Paris. The system is that of Clement Ador. The rails on either side of the carriages consist of a series of jointed pieces of rail, with flat supporting pieces; they inclose the system of wheels, passing down over the front and up over the end wheels, and all the wheels have two flanges to prevent any derailment. In front the chains of rail are guided by two distributing wheels, which are governed by the traction, so that on pulling obliquely, right or left, the endless way automatically follows the same direction. At the end of the train, again, are two taking-up wheels, provided with differential motion to meet the difficulty of going in curves, which involves an extension of the rail on one side and a contraction of that on the other, so that whatever the curve (to six or seven meters radius) the way is regularly put down and lifted.

From the mechanical point of view one is struck with the smallness of the force required to move a train thus arranged. In the Jardin des Tuileries the train consists of three carriages, capable of containing in all thirty children, and often full. These are drawn by two goats, which work thus for seven hours. The total load is rather more than a ton. To draw a like weight in three carriages on ordinary roads would require a dozen goats, four for each vehicle. The economy of carriage, then, is incontestable. The normal speed is three to four miles per hour. The system is, of course, not designed for passenger traffic, but for goods, and in many places, with bad roads or none, might be very serviceable.

CURIOSITIES OF THE LOCOMOTIVE.—Our first-class narrow gauge engines weigh, empty, 44,000 pounds, and are worth 16 cents per pound. They will consume one cord of wood and 1,200 gallons of water per hour, and will generate 275,000 cubic feet of steam per hour, of a pressure equal to that of the atmosphere. Their heating surface is of the extent of the bottom of a boiler 34 feet in diameter. The strain upon the iron of the shell of boiler, to burst it open lengthwise of the boiler, is from 6,500 to 11,500 pounds per square inch under ordinary pressures. There is also an additional strain of about 4,000 pounds per square inch exerted lengthwise of the boiler to pull it apart crosswise. The whole pressures exerted against all the internal surfaces of the boiler amount to 20,000,000 of pounds or 10,000 tons. The crown sheet of furnace, alone, carries a load of 120 tons! The usual distance traveled by the locomotive, being in motion but about one-eighth of the time, is equal to once around the globe every year. In going 60 miles an hour, 88 feet are traversed per second, five revolutions of the driving wheels are made requiring 20 strokes of the piston, and 20 intermediate periods of action of the valve, equal to the division of a second into 40 parts.

THE HUDSON RIVER.—As originally proposed, the Hudson River tunnel would have been a simple bore, large enough to accommodate two railway tracks. Lately the company have changed their plan, we are informed, and there will be two small bores instead of one large one. These will be bored throughout with three-eighth-inch iron plates. One reason for the change is that small tunnels will be stronger than a large one. The tunnels will meet and overlap about a foot. When they meet, the brickwork will form a partition and hold up the structure so that it will sustain a greater pressure from above and from the sides. It is believed that the workmen can proceed faster than by the old method, and that the work can be sooner completed than was at first anticipated.

A GLACIER IN COLORADO.

A gentleman who has during the past two years traversed the mountains in the vicinity of Leadville, and penetrated almost every one of the secret recesses, informed a *Herald* reporter yesterday that there is within 25 miles of this city one of the most interesting curiosities of nature—a veritable glacier, presenting all the characteristics of the glaciers of Switzerland, both in magnitude and motion, its progress being gradually down the gulch. The scene of this curiosity is located in the Mosquito range, about 15 miles north of the pass. Our informant states that he first discovered it about three years ago, when out on a prospecting tour. It was then nearly a mile in length, and at the bottom of the gulch presented a sheer precipice of ice not less than 150 feet in height. Later in the season the place was visited again, when it was found that the great mass of ice had melted until at its face it was not more than 100 feet high, the loss from the surface reducing its length to about half a mile. Again, early in the following year, the place was visited, and the glacier was found to have regained its bulk, showing that the accumulation of ice and snow during the winter was about one-third its gross bulk.

The rocks on the sides of this immense mass of ice show the marks of attrition, proving beyond all controversy that the glacier is in motion. Indeed, the earth at the foot of the glacier, heaved up in great masses, shows that it is gradually moving down the gulch into the valley. During the summer a large stream of water flows from the face of the ice cliff. Our informant is of the opinion that the glacier, as it progresses out of the deep gorge in which it was formed, will slowly melt away, and that it will not last many years. It is out of the way of ordinary travel, and the route to the scene is exceedingly difficult, so that it is not likely to be visited except by prospectors and hunters.—*Leadville Herald.*

A NEW ELEVATED RAILROAD.—Mr. Charles Leavitt is exhibiting in Cleveland, Ohio, working models of an invention which promises to do away with many of the objections urged against elevated railways. It is described as dispensing with the inconvenience of tracks in streets by substituting an elevated truss-work sustaining a single or double track, as may be desired, the cars being suspended under the track and coming to within about a foot of the pavement. The trucks travel upon the elevated track with an easy, smooth and almost noiseless motion, and are so secured that they cannot be forced from the rails. The appliance for propelling the cars consists of an endless steel wire cable, which extends the entire length of the road above the track and runs in a circle, so that cars upon one track are drawn in one direction, those upon the other in the opposite direction. The motor is a stationary steam engine, situated at one end of the road, which works directly upon the cable. The cable is attached to or detached from the trucks of the car by a clamp device, which admits of starting or stopping the car at any point.

A LARGE LAKE DRIED UP.—Where at one time, says the *Kuraka Leader*, was Ruby lake there is at present not a drop of water. This sheet of water, seven or eight years ago, was from 18 to 20 miles in length, and varied in breadth from half a mile to two or three miles, and was in a number of places very deep. It was fed by numberless springs along the foot of Ruby mountain, and was the largest body of water in eastern Nevada. For a number of years past it has been gradually drying up, until at last it has entirely disappeared. What has been the cause of this is a mystery. The Ruby range of mountains is considered the largest and finest between the Rockies and the Sierra Nevada, and besides being well wooded, has been the best watered range of mountains in Nevada.