

teachers now, as they were thirty or forty years since. These diseases are dependent, to a very considerable extent, upon atmospheric causes, though the torpid condition of the liver has often considerable to do with them. The use of flannel under-clothing for the limbs is one of the best preventives, as "patience and flannel" form, perhaps, the surest cure. Frequent bathing, in warm or cold baths, the capacity of the subject for speedy reaction being the guide as to which shall be chosen, will be found a powerful adjuvant to the maintenance of sound health.

But we must close as we began, by insisting that teaching is, in itself, beyond most others, a healthful profession; that if untainted by hereditary infirmities, the teacher using sufficient open-air exercise, and a well-regulated diet, may reasonably hope to attain to as venerable an age as the worthies whom we have enumerated.—With better ventilated school-rooms, a simple but healthful diet, and vigorous and regular exercise, the coming generation may see venerable white-haired patriarchs, and equally venerable matrons, the teachers of more than half a century's experience.—*Dr. L. P. Brockett, in Educational Monthly.*

Eminent Educators Deceased in 1865.

We have been called upon the last year to mourn the demise of the greatest American Scholar, and one of our most prominent Statesmen—Edward Everett. A professor of Harvard University at the early age of twenty-five, he had devoted nearly all of the remainder of his life to the advance of education. No person did more to found the Public Library of Boston (one of the greatest blessings that city has ever received). No person did more for the purchase of the home of Washington. Since the war, no person, considering his means, has done more towards vindicating the supremacy of the National Government. He leaves a large circle of mourning friends. He died on the 15th of January.

Sydney A. Thomas, of New-Haven, one of the oldest Teachers of Connecticut, died February 5th.

Rev. R. O. Kellogg, Professor in Lawrence University, took his life in a paroxysm of insanity, in February.

The educational profession, as well as the literary world, met with a great loss on the 10th of June, in the death of Mrs. Lydia Huntley Sigourney, who was widely known, and the excellence of whose character and writings needs no comment.

The Right Reverend Alonzo Potter, D.D., an accomplished Teacher, and a zealous friend of education, died in San Francisco, July 4th.

Rev. Francis Wayland, D.D., L.L.D., author of several valuable School and College Text Books, late President of Brown University, died on the 30th of September.

James S. Eaton, author of Eaton's Arithmetic, for many years Principal of the English Department of Phillips' Academy, Andover, Mass., died October 10th. On the same day, Mrs. Elizabeth Ricord, once a popular Teacher and author of several Text Books.

Rev. George Musgrove Giger, D.D., late Professor of Latin in New Jersey College, died on the 11th of October.

The Boston *Advertiser* of November 2d, informs us that Joseph E. Worcester, L.L.D., the distinguished lexicographer, died on Friday, October 27th, at his residence in Cambridge, at the advanced age of eighty-one years. Dr. Worcester was born in Bedford, New Hampshire, August 24th, 1784. He graduated at Yale College in 1811, and was for some time a Teacher in Salem, but in 1819 removed to Cambridge. He began as early as 1817 the issue of his long series of manuals and text-books in geography and history, and in 1827 made his first essay in lexicography, in a revised edition of Johnson. His labors in this department of learning were unremitting, and resulted in a series of important publications, concluding with the great quarto which in 1860 may be said to have finished the work of his life, and established his name in the first rank of the lexicographers of our language.

Dr. Worcester's career was distinguished by a conscientious fidelity to the task which he had undertaken. He aimed to preserve the purity of our tongue, and to establish a standard which should have the sanction both of classical usage and cultivated taste. His success in this effort was such as to crown him with literary honors, which few can hope to gain in the laborious and dry field of study which he selected for himself. Degrees from Yale, Harvard and Dartmouth Colleges, and election as member of several learned societies, here and in England, testify to the respect in which his industry and his attainments were held.

OVER THE ATLANTIC.

H. G. Ollendorff, a Teacher of languages in Paris, whose system of

acquiring French, German, Italian, and other European languages, has received so wide a circulation, died on the 30th of October.

Charles Von Raumer, a German Professor and author, died in June. Dr. Franz Aus, whose German Method is widely known, died in September.

Dr. Charles Richardson, an eminent English lexicographer, died on the 6th of October, at the ripe age of ninety one.—*Condensed from Exchanges.—Wisconsin Journal of Education.*

SCIENCE.

Pleasant Ways in Science.

No. II.—EQUILIBRIUM AND REPOSE.

In the first of these papers we considered certain facts belonging to what we designated "Curiosities of Motion." We found that all things change, and that nothing is absolutely still. Let us now consider a few phenomena belonging to conditions of equilibrium and repose. In an absolute sense, no objects can be so described, but very close approximations to these conditions may be found throughout the universe. Equilibrium means a state of equal balance, and we shall arrive at some elementary and serviceable ideas by considering a pair of scales, or, more simply, a well-balanced scale-beam, without the pans. If such a beam be placed in perfectly still air, and away from sources of disturbance, it will remain perfectly level; but if accurately made, the slightest force acting upon either end will produce an oscillation, and, if continuous, a subsidence of the end affected. A feeble current of air, a very small magnetic or electric attraction or repulsion, a gentle heating of one end, with consequent expansion changing the position of the centre of gravity—any of these things will disturb the equilibrium, and cause a state of motion to follow the state of rest.

Now, making a pair of scales may appear a very simple thing, and yet, when a near approach to perfection is required, the task is found to be surrounded by a variety of difficulties, requiring considerable skill and science to overcome. To understand this, we must arrive first at a distinct comprehension of what is meant by *centre of gravity*. Terrestrial gravity, or weight, means the mutual attraction exerted between the earth and any given body, as, for example, a piece of wood. Take a strip of wood, or of card, which will do as well, say six inches long, and half an inch wide, run a needle through it near one end, and support the needle on a couple of wine-glasses, so that the card can fall between them. The long end of the card will touch the table on which the glasses stand, and, if lifted up, will immediately fall back again. Why? Because the earth attracts and is attracted by all the particles of the card, and there are more of them in the long end than in the short; that end therefore falls. If the short end is weighted, so as to attract and be attracted by the earth as much as the long end, a balance will be obtained, and neither end will fall. The quantity of weight on either side of the needle which passes through the point of suspension can be adjusted quite as well by moving the needle as by adding to the weight of the lightest end. There must be a point in every solid so situated that exactly as much weight lies on one side of it as on the other. In a regular solid, like a solid square or a solid parallelogram, we can find this point by drawing diameters across opposite corners; they will cross in the centre of the figure, which is also its centre of gravity. In a circle, the centre of the figure is likewise the centre of gravity, presuming always that the object is of equal density throughout. In irregular figures, the centre of gravity is more troublesome to find; but when found, has the same property, that if the object is suspended at that point it can remain at rest. A body acts as if all its weight were concentrated in its centre of gravity; and, consequently, whatever be the mode of its suspension, the centre of gravity will fall as low—that is, as near the centre of the earth—as it can. Now, if a body has a pin run exactly through its centre of gravity, and that pin is strong enough to bear its entire weight, it is obvious that the centre of gravity cannot fall lower than it is already placed. To do so, it would have to break or bend the pin, which we have supposed impossible. If, therefore, we run the needle exactly through the centre of gravity of our piece of card, we shall find that it can be at rest, or balanced in any position. Both arms may be horizontal or vertical, or in any intermediate position; and whatever tendency of weight operates upon one arm in one direction, must operate upon the other arm in exactly an opposite direction, and so both arms will be in equilibrium wherever they are placed.

In these experiments we suspend a body, free to move about the