hay and oats, on the other to its teeth which masticated them. But the grass must contain such elements as will be of use to the horse. It cannot acquire these without a suitable soil to furnish lime for the bones, silica for hoofs, &c. But there would have been no soil at all but for the gradual disintegration and decay of the original igneous rocks of the earth, by the means of the mechanical and chemical agencies at work through countless ages of the world. Granting a perfect soil, still the grass could not grow without air and water. Moreover, the air must contain carbonic acid and ammonia. Supposing a large supply of these substances were constantly being manufactured somewhere, they would never reach a particular blade of grass unless air had the property of diffusing gases and moisture through it, so that the necessary supplies became equally distributed throughout the atmosphere. Granting, then, the laws of diffusion of gases and moisture; still, the plant could get no water unless air could imbibe it. But even this is not enough. Grant that air can imbibe it till, it is saturated, and having arrived at that condition of equilibrium, how is the grass to get it out of the air again? We must now admit the law of absorption, but varying with temperature—the higher the temperature the greater the absorbing power; and that a highly charged atmosphere must part with its superabundant moisture as soon as it is cooled. But what should cool it? We must put the air in motion; and we now trace a cause for winds, in their circulation from tropical regions to the temperate. What causes the air to be heated, to expand and rise up, to flow north and south, and so be circulated and carry moisture and ammonia imbibed from the ocean? The final cause is the sun. Hence the sun heats the tropical air. The air imbibes moisture and rises. The wind flow over temperate regions, there it becomes cooled, and the rain fails. The grass grows, the horse eats, and the work is done, and we have to thank the sun for it all!

In connection with the teaching of Physiography, I would strongly recommend the formation of a typical school museum. It should not be a mere heterogeneous collection of "curiosities"; but every specimen should have a distinct use in its bearing upon some natural phenomenon, or in explanation of some of the many physical forces in work. Specimens illustrative of calcareous springs, stalactites, remains of characteristic prehistoric animals and man, local fossils, correctly named and properly arranged, nests and eggs of local birds, local butterflies and other insects. A school herbarium should be formed, with drawings of floral dissections, if possible done by the pupils themselves, a collection of wild fruits dissected out, &c. In fact, to an enterprising zealous teacher, nothing will be impossible in carrying out all that is requisite to render Physiography a most attractive and an intellectual invaluable aid to the ordinary school curriculum.

[At the close of the paper, the lecturer exhibited a number of specimens to illustrate the general character of what he suggestes should constitute a school museum, —*e. g.*, calcareous and siliceous stalactites, stalagmites of baryta, malachite and calcite, a bird's nest falsely "petrified" from Matlock, by incrustation of calcited truly petrified (fossil) wood, the grain being entirely replaced by silica. A series of prehistoric implements, bones, and teeth of British extinct mammalia (rhinoceros, hyæna, bear, &c.) He also pointed out how stereoscopic photographs often illustrate remarkable geological and physical features, and recommended the use of the stereoscope as an important adjunct to the teacher's aid.]

Educational Times.

Address of the President of the Provincial Association of Protestant Teachers —Hobart Butler Esqr.

Bedford, 25th October, 1879.

An errroneous impression has unwittingly been made to obtain regarding the state of the common schools in the Townships. They and the school buildings have from individual instances had a radically false appearance thrown around them. Some of our confrères have evidently felt it to be eccentric to give individual pictures of the school system of the Province, forgetful that individual cases do not make general truths, unless in the aggregate they form a large majority; and have made much of particular instances of poverty or neglect of officials in isolated cases, and deduced from them an exaggerated condition applying to the whole school system of the country. It is proposed, therefore, in this paper, to review in part our system, and in the course of it suggest improvements.

We as teachers are supposed to meet for a purpose—to look situations squarely in the face—to make a diagnosis, so to speak, of the ailments of the school, system and find remedies.

Having met with hearty good will so many times, have we accomplished what we ought? Is our school system improving from year to year? Our Common Schools—or—popular education.

An eminent writer has said of our country schools, that, because they place upon an apparent equality all the young of the State, they are not the select schools, the schools of the rich, nor those of the defined, but the schools of all our young of the whole community. The scholars are classed together, learning the same principles; their sports implant a thought of fellowship common, extended, and unselfish, a good will and youthful friendship that produce sterling qualities in the after years of life, as the different individuals sustain their several relations to each other and to their common State. In them class distinctions are unknown, excepting that "he is best who deserves most" by his attainments. The rich and poor boy stand side by side; they alternate in being the recipients of honors and rewards; and they take censures and punishments alike in turn according to their demerits. Educated thus as companions they are better enabled as men to work together for the good of the country. In mixed populations, the children taught together in schools, being the parents of different nationalities, tongues, and creeds into accord upon national matters, as well as upon neighborhood difficulties. The animosities arising from political and religious views an softened by frequent contact of children. The descendants of English, Irish, Scotch, French, German, and American, reading from the same text-book, spelling in the same class, enjoying together the same sports, never know the bitternesses that separated their ancestors; the rich and poor are not taught class distinctions.

It may be claimed that such a system of education is simply advanced democracy. What are we in reality but a democracy? We have no titled aristocracy we require no class education. The distinctions of class exist only in name in the mother country. Royalty has been for some years stepping down to a lower level, (perhaps it should be said rather, rising to a higher plane) recognizing the advanced proposition that true nobility consists in the greater manhood of the man, as illustrated by his capabilities. The sons of royalty are to-day being educated in the same branches, physical and mental, at the side of the common soldier and the sailor.