largely from the standard by which the results are periodically estimated, which standard is an *a priori* conception of the powers and capacities of the young. This is not the only, and possibly not the best, means of estimating a process of growth; but it is the only one encouraged under the English code, and the only one that is likely to be employed among us, so long as the majority of parents demand, not that their children shall grow, but that they shall overtake some one else's children in the race.

Wherever an artificial stimulus is employed, there will be over-pressure to a greater or less extent; and it is this fact which Dr. Crichton-Browne has brought out most effectively. The backward children, whom he judges to be incapable of accomplishing an ordinary year's work without undue strain, include the dull, the delicate, and the half-starved. In this country the last-named class are virtually outside the operation of the influences that produce over-pressure; but of dull and delicate children we have a full quota, and it is well for parents to consider the risk that attends the endeavor to force such to keep pace with those whom 'God has made full-limbed and tall.'

It is difficult to establish a relation between educational processes and vital statistics; but there is reason to infer the connection, whenever, as Dr. Browne expresses it, "diseases due to nervous conditions, identical with those that educational over-pressure sets up," are on the increase. That this is the case in England is shown, Dr. Browne believes, by the statistics of mortality from hydrocephalus, cephalitis, diabetes, and kindred diseases. Nor does he stop here. "We have signs," he says, "which can scarcely be misinterpreted, of the tendency of education, when not safe-guarded by physiological discretion, to overthrow mental equilibrium. Suicide, which is the crowning symptom of one type of insanity, has been spreading portentously during the last hundred years. A startling revival of it has occurred all over Europe; and the rate of suicide calculated on the entire population seems to have quintupled in the last century. It is," he says further, "an indisputable fact, that the revival of suicide in almost every country of Europe has coincided in time with the modern extension of education, and that suicides are now most numerous in the very regions where education is most widely diffused. The number of children under sixteen years of age in the list of suicides, although still comparatively small, is swelling annually; and the age at which the maximum number of suicides occurs in England has receded considerably in the last half-century, showing that the disposition to self-destruction arises now earlier in life than it was wont to do in former times."

Dr. Browne's personal investigations in the schools were directed to ascertaining the extent of headache, sleeplessness, neuralgia, etc., among school-children. It is sufficient to note the line of inquiry, without going into the tabulated results, more especially as the author admits that they are merely tentative.

Attention has already been drawn in the pages of *Science* to the action taken by several German states with reference to overwork in the Gymnasien and Realschulen. More recently, in accordance with the commands of the Prussian minister of instruction, a report on the subject has been prepared by the 'Royal scientific commission on medical affairs,' including Professors Virchow and Hofmann, and ten other members of almost equal note. The commissioners go into a detailed discussion of the observations submitted to them by the government, touching suicide and insanity among scholars, headache, bleeding at the nose, congestion of the brain, and general physical and mental weakness. In view of all the information attainable, they state "that the requisite data are wanting for a scientific estimate of the extent of over-pressure among the pupils in higher schools;" and they express the opinion, that, for the collection of such data, "the co-operation of competent medical men is indispensable." They do not, however, overlook the fact that there are many essential points involved in the inquiry, of which the teachers alone are the proper judges. The commissioners especially insist that teachers must not measure the strength of their scholars all by the same standard.

The agitation of the subject of over-pressure is not confined to England and Germany. Information reaches us that the minister of public instruction in France has reduced the hours of study in secondary schools. In Switzerland, where the evidences of over-pressure are startling, the cantonal governments are considering the best means of counteracting the evil. At the recent international medical congress, Copenhagen, Dr. Kjellberg of Upsala made a profound impression by his statements concerning the effect of study upon the health of children. The symptoms of excessive brain-work on the part of the young, which he had noticed, were headache, sleeplessness, intellectual torpor, muscular weakness, and spasm, culminating in hallucination, and often in sudden loss of consciousness.

Little or no effort has been made in the United States to collect data bearing upon the subject, but there is reason for supposing that over-pressure is not so common here as in countries where education is more highly developed. It would, however, be well for us to take warning in time, and seek to forestall such effects as those described by the various experts who have investigated the matter in Europe. We should be particularly cautious about advocating European systems of education before we have ascertained their ultimate effects.

NEW-ENGLAND ORCHIDS.

The orchids of New England: a popular monograph. By HENRY BALDWIN. New York, *Wiley*, 1884. 158 p., illustr. 8°.

LOVERS of flowers have always wondered at and admired the beauty and oddity of orchids, which are sure to form the most interesting

part of a collection of exotics; but since the reason for their many strange and complicated forms was set forth by Mr. Darwin, in his work on their fertilization, the name 'orchid' at once suggests a plant worthy of more careful study. While we do not have Angraecum, Pterostylis, or Catasetum among our wild plants, to indicate the extreme adaptation to insect-pollination of which the family is capable, our flora contains many species quite as interesting to the student as those to be seen in most collections; and Mr. Baldwin has done very good service in collecting the scattered notes on their peculiarities. Of the fifty-nine species or well-marked varieties of our eastern flora, no less than forty-seven are found in New England; so that the book is of more than local interest. With few exceptions, the sixty illustrations, the larger ones mostly from nature, are very good; some are excellent, and show not only a botanist's knowledge, but an artist's appreciation of light and shade and of the value of a well-selected background. The writer's style is pleasing; and, if the professional botanist might feel disposed at times to criticise it as sacrificing something of precision for the sake of avoiding technicality, it contrasts very favorably with the many popular books whose only merit is their style, since every page shows personal study. It is not surprising that a popular book on a group which has long been an object of special observation should contain little that is new; yet this is far from being entirely devoid of new matter, and is worthy of a place on the shelves of the specialist as well as of the amateur.

INDIAN FOLK-LORE AND ETHNOLOGY.

The Algonquin legends of New England; or, Myths and folk-lore of the Micmac, Passamaquoddy, and Penobscot tribes. By CHARLES G. LELAND. Boston, *Houghton, Mifflin, & Co.*, 1884. 400 p. 12°.

A migration legend of the Creek Indians, with a linguistic, historic, and ethnographic introduction. By ALBERT S. GATSCHET, of the U. S. bureau of ethnology. Vol. i. [Libr. abor. Amer. lit., iv.] Philadelphia, *Brinton*, 1884. 257 p. 8°.

THE comparison of languages, if made on scientific principles, affords undoubtedly the best, and indeed the only sure, means of tracing the relationship of different branches of the human race. Next to this method, though at a long interval, comes the study of their myths and legends. This study, though inferior in the certainty of its deductions to that of comparative philology, has certain evident advantages in other respects. We learn from it the intellectual and moral traits of the people who preserve and repeat the legends. We get to understand their habits of life, their ways of thought, their views of this world, and their ideas of a future life. Occasionally, also, we gather traces of genuine tradition, sometimes even of a far distant past, which, when corroborated by the evidence of language and perhaps other memorials, may be of real historical value.

Mr. Leland has been obliged by want of space, as he tells us, to exclude from his present work the historical legends which he has collected, and which, it is to be hoped, will be hereafter published. His work is thus entirely made up, as its titlepage professes, of what may properly be termed the 'myths and folk-lore' of the eastern or Abenaki branch of the great Algonquin race. As such it must be deemed one of the most valuable as well as most interesting contributions that have been made to this department of knowledge. The collection comprises some seventy stories, distributed under different heads, such as 'Gloosh-hap the divinity,' 'The merry tales of Lox the mischief-maker,' 'The amazing adventures of Master Rabbit,' 'The Chenoo legends,' 'Tales of magic,' and some minor divisions. The whole work shows the hand of an experienced writer, who is at once practised in the literary art, and alive to the requirements of science. The stories themselves display much imaginative power and a genuine sense of drollery. As evidence of intellectual capacity in their framers, some of them will bear comparison with any thing contained in Grimm's Teutonic legends. Mr. Leland is disposed to consider them superior to the legendary tales of the other Indian tribes, but in this view he is certainly mistaken. There is no reason for supposing that the Abenaki Indians surpassed in intelligence the Algonquin tribes of the west and south, or their neighbors of the Huron-Iroquois stock. These, indeed, are known to possess a folk-lore of remarkable extent and interest, which, in the specimens we possess, is not at all inferior to that disclosed to us in the present volume.

The author, in his preface, modestly announces that his chief object has been, not to discuss theories, but to collect and preserve valuable material for the use of better ethnologists to come hereafter, who, as he humorously suggests, "will be much more obliged to him for collecting raw material than for cooking it." This captivating humility, the reader