

New Brunswick Journal of Education.

SAINT JOHN, N. B., NOVEMBER 11, 1884.

CHAT WITH CORRESPONDENTS.

"M." writes: "There are many questions I want to ask, but I am afraid everyone but myself knows how to answer them, and you would consider them too simple to make a reply." There are many questions apparently simple that are in reality very complex, and the information when the questions are answered may not be valuable to teachers in their work. But the questions proposed by our correspondent bear upon useful topics. By all means send to us such questions as, after patient investigation, you have not been able to solve. Comparatively few teachers possess such a library of books of reference as would enable them to answer many important and useful questions that constantly arise in the course of a lesson from one of the school readers. An important feature in an educational journal is the question department, in which teachers may ask and receive answers to problems which their limited resources may fail to answer satisfactorily.

"H. B. K." Your remittance received. Your suggestion in regard to primary school work is an excellent one and will receive attention in future. This journal can only be made influential and useful by the active co-operation and assistance of its friends. Let any timely suggestion calculated to make it more useful, let any method which a teacher has found to be of advantage in school work be communicated through its columns. Many teachers may be in need of just such hints, and by adopting them the efficiency of their schools may be materially increased.

CORRESPONDENTS will please send us their names in confidence if they expect an answer to their communications either through the columns of the JOURNAL or otherwise.

AN esteemed correspondent writes: "When I can get a little leisure or feel overflowing on some subject, I shall write something for you." We all ought to help you along. But you are doing admirably, and I believe the paper is an established success." The above is an extract from a private communication. Were we to give the writer's initials even, his identity would become known to our readers, and they would share with us the regret that a "rage for scribbling" did not attack him more frequently.

TRAINING VERSUS TEACHING.

Education embraces three objects—the development of the human faculties, the formation of the character, and the communication of knowledge. Of these the two former are too frequently lost sight of, and the whole stress of the teacher's energies is thrown into the last. The most valuable knowledge may be taught in such a way as to afford the least possible discipline to the mind, and that the secret of the development of power is not so much the knowledge communicated as the way in which it is communicated.

The teacher who thinks only of imparting knowledge teaches, but does not train. The child is of more importance than all the knowledge in the world; but too often the child is treated as though he existed for the sake of the knowledge. "Training," as opposed to "teaching," aims at the cultivation of the human faculties with the special object of their development, and regards the communication of knowledge as merely instrumental to this end. The mind must have something to act upon, and must, therefore, be supplied with knowledge, but power, not knowledge, is the end the trainer has in view. The common aphorism that "knowledge is power," like most other aphorisms, needs careful examination. Knowledge may be power, but much

depends on the kind of knowledge, and the kind of head in which it is stored. Coal is power; but its power is latent until it is utilized in a properly constructed engine. Nay, a man may have his mind well stored with knowledge that is not lumber; and yet, from never having his mental faculties properly trained, be unable to make much practical use of it.

We talk of the mind as though it were only a single faculty, and as though any mental exercise must equally affect the whole of it. As a matter of fact, the mind embraces many faculties, and what may be a valuable exercise for one may afford no exercise to another. This truth is popularly recognized in such remarks as "He has cultivated his memory at the expense of his reasoning powers," "He has been taught to observe, but not to draw inferences," "His imagination runs away with him," "Lord B. son, with his eminently practical mind, saw in education not only a means of acquiring knowledge, but an instrument for remedying the natural defects of the mind." In the famous essay "Of Studies" he says, "There is no stand or impediment in the wit but may be wrought out by fit studies; like as diseases of the body may have appropriate exercises. . . . If a man's wit be wandering, let him study the mathematics; for in demonstrations, if his wit be called away ever so little, he must begin again; if his wit be not apt to distinguish or find differences, let him study the school men, for they are *Cynic's sectores*, [hair-splitters, as we should say]. If he be not apt to beat over matters, and to call up one thing to prove and illustrate another, let him study the lawyers' cases; so every defect of the mind may have a special receipt."—*London School Guardian*.

MANUAL INSTRUCTION IN THE UNITED STATES.

Some idea of the need of instruction in the mechanic arts in the United States was probably present in the minds of the Senators and Representatives when the Land Grant Act of 1863 was passed. A clause in this act reads as follows: "The leading object shall be, without excluding scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts in such manner as the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." The report of the Secretary of the Interior, on Industrial Education, 1882, gives a list of forty-two different schools and colleges in various parts of the union which owe their existence to this land grant. Most of these are agricultural and engineering colleges. The words in the act in regard to teaching such branches of learning as are related to the mechanic arts being usually interpreted to mean instruction in the use of carpenters' and machinists' tools. Of these land grant schools, the best known are the Massachusetts Institute of Technology, in Boston, and the Hampton Institute at Hampton, Virginia. Each of these illustrates an interesting experiment in industrial education. The Massachusetts Institute of Technology might properly be called a school for foremen, as its graduates can be found superintending industrial establishments all over the United States. The pupil in weaving, for instance, is required to design or copy a pattern, and then work it out on the loom. In molding he makes a drawing, models the wooden pattern from it, and casts the pattern in the metal. The course of instruction is four years,—mathematics, chemistry, history, and the modern languages forming a part of the educational scheme. Hampton Institute was founded by General S. C. Armstrong as a normal school for colored teachers. General Armstrong, while serving as a staff officer at Fort Monroe, during the war, was brought in contact with the fugitive slaves who took refuge at the fort. When slavery was abolished, and four millions of men, women, and children became the wards of the nation, General Armstrong conceived the idea that they could best be educated and civilized by the aid of their own people. It was as necessary to teach this vast multitude who had never been beyond the sound of a master's voice how to work for themselves, and how to care for themselves, as it was to teach them to read and write. Manual instruction was therefore a necessity at the

Hampton Institute. The male graduates were to be leaders on the farm or in the workshop, as well as teachers. The female graduates were to be capable of cooking, sewing, or caring for the sick. How thoroughly and successfully this scheme has been carried out need not be stated here. Another type of the industrial school is to be found in the Worcester (Mass.) Free Institute. At this institution three and a-half years of general education is completed with instruction in mechanical engineering, in carpentering, and in machinist's work. This school more nearly approaches the trade school, as many of its graduates are returned as "journeymen mechanics." The Worcester school was founded by private liberality. Without such aid, it may be added, neither the Massachusetts Institute of Technology nor Hampton Institute could have reached its present usefulness. In the European technical schools provision is made for instructing young men already in the trades by a course specially adapted to their wants.

Manual instruction has already been incorporated in the public school systems of Boston and Philadelphia. The New York Board of Education has maintained for several years a workshop at the City College. It now proposes to open schools all over the city, where boys and girls will be taught to use their hands. A great impression was made last spring by the exhibition, held by the Industrial Education Association of New York, of children's handiwork, and of the different methods of teaching them how to work. Not only was it shown what varied and excellent work little fingers could do, but school teachers and superintendents came to testify that the brain-work was benefited by the hand-work.—*W. R. T. Aschmuthy, on "The Need of Trade Schools," in the Century for November*.

A FEW FACTS:

A pace is three feet.
A span is 10½ inches.
A palm is 3 inches.
One fathom is 6 feet.
There are 1,750 languages.
Two persons die every second.
A storm moves 36 miles per hour.
One mile is 1,760 yards in length.
One square mile contains 640 acres.
The average life is 31 years.
One barrel of flour weighs 196 pounds.
Sound moves 1,118 feet per second.
One barrel of pork weighs 300 pounds.
Slow rivers flow 4 miles per hour.
One acre contains 4,840 square yards.
A hurricane moves 80 miles per hour.
Light moves 186,000 miles per second.
One firkin of butter weighs 56 pounds.
A hand (horse measure) is 4 inches.
Rapid rivers flow 7 miles per hour.
Moderate winds blow 7 miles per hour.
The world now uses 40,000 barrels of coal oil daily.
The first steam engine was brought from England in 1753.
Electricity travels at the rate of 288,000 miles in a second.
The first use of the locomotive in this country was in 1829.
The first almanac was printed by George von Porbach in 1490.
Until 1776 cotton-spinning was done by the hand spinning-wheel.
The imperial canal in China is over 2,000 miles long and passes forty-one cities.

PERSONAL.

Dr. Geo. Stewart, Jr., is to be tendered a reception by the Canadian Club of New York—one of a series of ten to the ten most distinguished Canadians.

N. Duffy, A.B., has resigned the position of Principal of the Albert County Grammar School, and will begin the study of medicine.

Miss S. E. Whipple, teacher of the girls' advanced department in the Albert school, Carleton, has tendered her resignation. Miss Whipple will be greatly missed in the profession where her devotion to her work has always caused her to be held in deserved estimation.