

EDUCATIONAL EXACTION.

A young lady, the first "girl-graduate" of Columbia College, died recently at the early age of 24. We do not learn the cause of her death, but she is said to have mastered Latin, Greek, French, German and Spanish, besides *belles-lettres*, mathematics, and other college requirements. This splendid list of accomplishments, if not much exaggerated, suggests a painful doubt as to how much the acquirements may have had to do with the premature overthrow of so much promise.

There is something very sad in the thought of the many possibilities of early wreck—and of course chiefly of the most promising—rendered more than likely by some of the demands of our modern ideas of education, in which too many subjects are attempted, and too few mastered with any degree of thoroughness. There would, we think, be wisdom in the bestowal of much greater care in the selection of main points, and in a careful consideration of their suitability to the capacities, tastes, temperaments, and probable future life of pupils, than now prevail. Besides too large and discursive a field, the school systems are also chargeable with the encouragement of manuals of a pedantic prolixity which not only display want of breadth in their compilers, and in the educational authorities who sanction them, but constitute a tax on the young brain as wearisome and pernicious as it is entirely superfluous. The most striking instance which occurs to us is in English grammar, the school handbooks of which, with their involved and complicated mazes of pedantic terms, move the absolute contempt of men whose grammatical ideas and practice were derived from the quaint and simple rules of the old Eton Latin Grammar, which, we may remark, we think to have been spoiled by priggish modernizing, and which hundreds of eminent men of letters whose style is only rarely equalled, found sufficient for the production of English as faultless as English ever can be.

But the death of this young lady correlates with another thought which has impressed itself upon us from observation to which we have been led.

We fear that overstrain and exhaustion of the immature system may arise not alone from the *cacoethes* of cramming in school, but from an undue tax on the physical powers in going to and from school, and this is likely to tell more on the future constitution of girls than on that of boys.

Every day may be seen coming down to Halifax by the morning train a bevy of young ladies—some five or six—none of whom, we believe, come from a nearer point than Elmsdale, some from farther. We have seen some of them, when the street cars were full or not on hand, walking down from North Street, and sometimes walking up again in the face of a sharp wind for the 5 o'clock train. Taking into consideration the early hour at which these young ladies must rise to catch the train in the morning, the late hour at which they must reach their homes, and the preparation of school-work, they must, perforce, do at home over night, and we cannot resist the strong impression that the whole combined arrangement must be a strain on the young constitution which, we should much fear, will be found to bear its fruit in the future, in the shape of weakness more or less prolonged.

Education is the most valuable of privileges, and many, if not most, parents naturally make great sacrifices to ensure it to their children. Our only fear is, that it may not always be a benefit unalloyed by serious drawbacks.

PERPETUAL MOTION.

Among the many attempts to solve the problem of perpetual motion which once occupied the minds of scientific men, we remember to have heard of one which was said to have been for years open to the inspection of visitors to the Royal Arsenal at Woolwich, and which, it was claimed, would continue to work as long at least as the springs of the machine would last. The device was simple enough. It consisted of a narrow steel tray, perfectly balanced on a central pivot, under each end was a strong spring, a metal ball was placed on the tray, and set in motion; the springs were so adjusted that when the weight of the ball brought one end of the tray down, the spring repulsed it and sent the ball to the other. The mechanism, though simple, was said to be perfect in adjustment, and the material the best procurable. And so the ball was set rolling, and, for aught we know, the tray may be oscillating to this day, and "continue the motion" till the springs weaken.

There is no harm in this ball, but there is another ball which has been set going apparently with the like perpetuity of motion, but altogether lacking in the innocent curiosity which prompted the initial motion of the artillery scientific plaything. Our ball indeed is fraught with sinister consequences to us all. We refer to the perpetual demands made upon both the Dominion and Local Governments for subsidies to aid in constructing railways. In referring to the subject we do not lay ourselves open to the charge of partizanship, as both the great political parties of the Dominion are using railway subsidies in the most open manner as a bid for political support. The Dominion Government, having the most money at its command, has the greater advantage, but the Local Governments, in their more restricted fields, are profuse in promises, many of which we shrewdly suspect they hope never to be called upon to perform. A few of these railway schemes will prove of great value to the country, and it is wise to aid them with government guarantees or cash subsidies. But the ball, having been set in the motion by the large outlay on the Canada Pacific, (a work of national importance, but directly beneficial to the central and western sections of the Dominion,) a great cry has gone up from the east, that their wants must now be attended to, and additional millions expended in providing new lines of railway. Promoters are busily employed in mapping out new routes. They care not whether the roads are necessary or will pay, so long as they can secure the Local and Dominion subsidies,

and float the stocks and bonds to their great pecuniary profit. In this Province there are two important roads that should be completed; but political manipulators, in their efforts to make capital for their respective parties out of the Dominion and Local subsidies, have so far prevented the accomplishment of most necessary works. We refer to the missing link between the Windsor and Annapolis and Western Counties railway, and to the Nova Scotia Central road. The Western Counties, in fact the whole province, would benefit through the completion of these roads, and yet political jealousy stands in the way. The syndicate formed in the time of the Thompson-Holmes Government to consolidate and complete the railroads of the province was certainly a good move, but unfortunately, if the scheme had been allowed to go through, it would have proved beneficial, politically to the Conservative party, and financially to several prominent members of that party. When the Pipes (Liberal Government) secured the control, enough flaws were found in the scheme to warrant its downfall on political grounds. The Fielding Government has since had overtures from another syndicate, and a new act of consolidation, similar in many respects to the former, has been passed. The province having turned over the Eastern Extension to the Dominion, and surrendered their rights to the Pictou Branch, the scheme is not financially as sound as the first, and capitalists have apparently given it the cold shoulder. As its success would tend to strengthen the Liberal party, the "powers that be" at Ottawa will hardly co-operate, and so the responsibility is shifted from the Dominion to the Local Government, and *vice versa*, and nothing is accomplished. We believe that the Province is really too poor to undertake the subsidizing of railways, and that it should proclaim this fact, and thus throw the entire responsibility for the completion of these needed works on the Dominion Government. This is the true course to follow, but as it would tend to strengthen the Conservative party, it is hardly likely to be adopted. The ball of political strength gained by the granting of railway subsidies, is kept perpetually on the move, and both parties in their struggles to apply it to their own uses squander millions on useless roads, while necessary works, which neither can control to their sole advantage, are passed over. If this kind of perpetual motion is kept up, only one result is certain, and that is that the Dominion of Canada is bound financially to come to grief.

THE STEAMER QUESTION.

We last week noted how much the magnificent steamers sailing between England and Australia contribute to the progress made by that colony.

The London *Weekly Bulletin*, in mentioning the fact that 1888 is Australia's centenary, gives some remarkable figures which can scarcely fail to be of interest to Canadians, in view of the fast coming close connection which will ere long no doubt be established between the two countries. The progress made by the great continent of Australia in the century which has elapsed since the British flag was planted on the shores of Sydney Harbor has no parallel in the history of the world, if we except the United States.

Between 1851 and the end of 1886, the total yield of gold produced in Australia had reached the enormous amount of eighty-one million ounces, equal in value to over £317,000,000 stg., to say nothing of other minerals, including the great copper mines of South Australia, and the imperfectly known resources of West Australia. The coal-fields of the colony embrace an area of 25,000 square miles, more than six times the extent of those of Great Britain, whose annual output exceeds 150,000,000 tons.

After the lapse of a century, the population of Australia has grown from 1030 to 2,700,000; or, including Tasmania and New Zealand, to fully 3,500,000. This is a marvellous increase when we remember that Canada, which is only slightly larger than Australia, has been settled more than a century longer, and is so much more accessible for European settlement, only contains about a million and a half more inhabitants.

As an illustration of the immense growth of Australia, we may adduce the following figures:—On May 1, 1788, its live stock mustered 1 stallion, 3 mares, 3 colts, 2 bulls, 5 cows, 29 sheep, 23 goats, 74 pigs, 5 rabbits, 18 turkeys, 29 geese, 38 ducks, and 142 fowls. On May 1, 1886, the live stock in Australia consisted of 1,372,756 horses, 8,264,778 head of cattle, 86,352,020 sheep, and 1,143,966 pigs. The increase of rabbits is a sore subject, and, unfortunately, quite beyond the reach of statistics. The production of wool in 1886 amounted in value to £16,218,846; and, as regards trade, the imports had reached £60,000,000, and the exports £50,000,000. The annual revenue is not less than £25,000,000, which is about one-fourth that of the Mother Country, whilst the population is only about one-tenth. The assets of the Australian banks amount to £140,000,000, and the Government savings-banks hold deposits to the amount of £12,000,000.

We have before alluded to the peculiarly favorable circumstances of the great Island Continent, which, combined with the wonderful increase of her population and resources, destine her in the next century to become one of the great powers of the world. Entirely free from the international complications which distract our own otherwise happy land, the maintenance of her loyalty to, and affection for, the old country, has been not only easy to her, but congenial, as is evident from the practical proofs she has given of her attachment. These circumstances have enabled her at the same time both to profit by the Imperial connection, and to contribute to its efficiency by the establishment of armaments of her own, naval and military, on a scale of practical value; and, in fine, she has now attained that stage of growth and existent prosperity, when all future progress has become both easy and secure. It might well be wished that the future of Canada was as clear.

It seems, however, tolerably clear that, though doubtless in less degree than Australia, Canada could not but derive some access of strength from the establishment of a line of steamers up to the standard of the day.