

he thinks, to be accounted for in the same way as the small number of children to a marriage. "Moral progress," he says, "has not marched abreast with material progress." Everywhere the aspirations of the rural classes are out of proportion to their intelligence and resources. The rise of wages has created a crowd of more or less factitious wants, which are difficult to meet and which keep alive a constant sense of privation. Education has created in the farming man an intellectual curiosity which it is hard to satisfy, and which keeps him constantly in mind of his isolation, of the loneliness and dullness of his life. One effect of this state of things in France is the influx from Italy and Belgium of a very low grade of laborers, whom the farmers are only too glad to hire to prevent their fields from lying waste, but who are anything but a wholesome addition to the French population. In this country we are witnessing much the same phenomenon. Wherever we find the natives abandoning in disgust the cultivation of the soil, we find a lower grade of labor, a less civilized man, who asks for less both from nature and the State, coming in to take their place at the plough.

Everybody who writes on this subject of the growing distaste for agriculture in the highly civilized countries lays a great part of the blame on the purely literary education given by the common schools. Anything, in fact, better fitted than this education to create a dislike for manual labor, and a solitary and monotonous life, it would be hard to imagine. It turns the child's thoughts almost wholly towards sedentary pursuits, and to places in which men swarm. The world which reading opens to him, both through the newspapers and such books as he is likely to get hold of, is a world of gayety, of cities, and theatres, and amusements, and luxuries; a world in which the farmer is more or less a butt for ridicule, in which the happy people are those who make fortunes by strokes of wit, in which physical labor is rarely undertaken except for amusement, and in which all rise in the world is marked by increasing abstention from toil of every description. It is, in truth, an education which originated at the Renaissance for the benefit of priests and gentlemen, and never was intended to be popular. Whether we shall ever see children trained in schools for the life they are actually to lead, or whether any such education in schools is now possible, it would take a very wise and far-seeing man to say.

TECHNICAL EDUCATION IN FRANCE.

A WRITER in the *Nineteenth Century* observes that the French mind, at once logical and mobile, is always the first to catch and focus the influences which are slowly beginning to tell on neighboring states, and "its evolution possesses for us the unique interest of a glimpse into stages of development through which other national minds may also be destined ere long to pass." For this reason perhaps it is that our Consul at Tunstall, Mr. J. Schoenhof, has selected that country to constitute his first study with regard to Technical Education in Europe,

the report of which to Secretary Bayard furnishes suggestive reading.

It is very satisfactory to find that the experience of other countries on this subject is to be looked into by so wise and thoughtful an observer, for Mr. Schoenhof's own observations and reflections on what he saw are by no means the least valuable part of the pamphlet. For instance, when he tells us that "a people's state of civilization can be measured best by what its *working* classes consider necessities of life," we see that we are on the right track. He also sees clearly that it is "unreasonable to expect of one nation the same work and results as of another, as it would be useless to engraft upon one nation an exact copy of the methods of another because the latter have been found to bring out good results there." He knows that we must see a nation *at work* if we would understand it, and this is why we are profoundly interested, not so much in its finished results as in its daily activity, and the means which it uses to train up its future workmen. Because France felt that she was losing ground as against her neighbors in the technical arts, she has made great efforts to regain her superiority, and to that end has laid her basis for improvements broad and deep by using the public-school system as their instrument. With her characteristic clear-sightedness, she has done this; her rulers have distributed the elements of Technical Education upon a broader basis than Germany, Austria, Belgium, Holland, Switzerland, or England. It is for this reason that we may be repaid for a study of her ways of working.

The rapidity with which the French statesmen have increased their means of education may be gathered from the following statement:

"To begin with 1830, the almost ludicrous sum of 116,000 francs was all the city of Paris could then find for educational purposes.

"In 1840, under the Orleans Government, it had grown to 858,000 francs.

"In 1869, the last year of Napoleon III., 6,192,000 francs were devoted to this subject. In 1871, immediately after the Franco-Prussian war, it had grown to 7,241,000 francs; in 1875, to 10,300,000 francs; in 1878, to 12,650,000 francs; in 1881, to 17,633,000 francs, and now to the net sum of 23,500,000 francs, after deducting the extra receipts and the outlay for building purposes."

Ten per cent. of the whole expenditure of the city of Paris is devoted to educational purposes. The city expends now for this purpose the same amount that New York city does, viz., \$6,000,000, and it expends it on the education of 200,000 children, about the same number as that of this city, where the average attendance for last year was 155,000, though the total attendance was 306,000. In all France, the sum used for educational purposes was \$60,000,000, the special schools for war and commerce, however, not being provided for under this sum. One very keen observation of Mr. Schoenhof is that the "inefficiency of the private schools, which the children of the so-called better classes attend, and the efficiency of the public schools, to which the children of the poorer classes flock, cannot fail to exert in time a powerful influence upon the constitution of French society." Another suggest-

ive fact is, that the Socialists in France "make captious opposition to the workshop practice in the schools, though the working classes take well to it, the Socialists opposing everything which tends to increase the ability of the workman, in the erroneous belief that by the degree of efficiency attained by individual workmen their standard will be raised and the opportunity of their fellow-workmen for finding employment correspondingly lowered." How short-sighted and false such an opinion is, is shown conclusively by the statistics given in Mr. Schoenhof's introductory letter to Secretary Bayard, where we see how illusory is the old standard of day wages used by writers on political economy. Although the same kind of machinery is used in different countries, we find that "the day earnings of the operatives (weavers) vary so much between one country and another that weavers in Switzerland earn but $2\frac{1}{4}$ to $2\frac{1}{2}$ francs (44 to 49 cents), in Germany on an average 2 marks (48 cents), in French mills $2\frac{3}{4}$ to 3 francs (53 to 58 cents), with a working day from five o'clock in the morning to half-past seven in the evening, and $2\frac{1}{2}$ hours of rest in the day; in England about 65 cents, with nine working hours, and in America from 80 cents to \$1.12 $\frac{1}{2}$ a day of ten working hours (average 85 cents, taken from the work account of a mill). If all things were equal, if with the same machines and working agencies the results of a day's work per hand employed were the same, of course the countries where the higher earnings prevail would be in a hopeless condition in competing with the others. But the reverse is the truth. In fact, the cheapness of the labor product stands in an inverse ratio to the weekly earnings of the operative."

This last statement points to more potent causes for difference in day wages, and hence in the comfort of the workman, than those generally put forward. Why do the same number of spindles in a cotton-mill in Bombay put out only one-half as much yarn as in Massachusetts? Another factor which we cannot afford to disregard in cost and prices of manufactured articles is the methods of distribution. We discover that "high earnings can be obtained only by great quickness, deftness, and uninterrupted attention and application, qualities which again can be supplied by none but the best conditioned labor, enjoying the highest standard of living." That the average weekly earnings of a workman at Waterbury, Conn., are \$10.71, four times as high as in the Black Forest or Switzerland, while the Waterbury watches can be sold at an almost incredibly low price, shows the value in an economic point of view of excellent machinery, and skill, and great quickness of labor. Again, the chief value of an article often depends on artistic design, and here the value of technical schools becomes at once apparent. An interesting observation is that of the director of one of the apprentice schools to the effect "that the best pieces coming under his observation were those made by workmen who still worked on the old method, that is to say, making every part of the work themselves without the help of labor-saving automatic machinery." Another

gives us a fact not less instructive. He says: "It has often happened that I have received apparatus, apparently perfect, made by an expert, but having one small defect: it would not do. Well, sirs, in most cases, the cause was simple, but unknown to the man who brought me the instrument. He knew how to work, but he did not know for what his work was intended." Mr. Schoenhof goes on:

"Fortunately self-interest begins to see the drift, and to understand that ignorant, or, what is synonymous, cheap labor, is as incompatible with maintaining position in competition as the old methods in transportation against the railroad and steamship. Recognizing the force of this axiom, France was quick in adapting its school system to the demands of a new epoch in the history of man. The elements of knowledge and the elements of workmanship which the public schools place within the reach of everybody, prepare the aspiring pupil for the highest branches of technical education put at his disposal by the liberal care of the State. Through the means for extending technical education in both directions, production is well taken care of."

This calls attention to one very important fact, that in the public schools the aim is not so much to train to one special trade as to give general power. How this is sought to be attained in the training of the young for the practical arts of life, in the French Republic, is fully shown in Mr. Schoenhof's report.

THE INDIAN GOVERNMENT AND THE STATE OF THIBET.

LONDON, May 2, 1888.

THE Indian Government has become involved in a difficulty with the State of Thibet which, unless treated with the utmost patience and gentleness, may easily grow into an issue of a truly formidable character. It has, thus far, attracted so little attention in England that in the United States it, not improbably, may have escaped observation altogether. But that is generally the way with our Indian troubles. They start from such very small beginnings as to elude observation during the stages of their growth, when they could be successfully encountered, and only then succeed in attracting public attention when the possibility of a peaceful solution is passing away. So does it threaten to be in this matter with Thibet.

Our Indian Empire, as I have pointed out in previous letters, is walled off from the rest of Asia by the stupendous barrier of the Himalaya Mountains. We are indebted for this isolation to the rapidity and comparative ease with which we overran the country and consolidated our power therein. The mountain barrier, also, marks the limit where the profitable occupation of the country ceases. A double reason, therefore, ought to have restrained us from all action which tended, however remotely, to encroach upon the line of fortifications which Nature herself would seem to have thrown up for the protection of India. The one reason was that it is impossible to extend our frontier beyond the Himalayas without aligning it with that of China on the northeast, and Asiatic Russia on the northwest. The other reason was, perhaps, even stronger: as the revenues of these mountain-lands could not nearly repay the costs of their occupation, every such extension of territory involved the imposition of additional taxation on our Indian subjects, and, *pro tanto*, tended to destroy their loyalty to a rule which claimed their allegiance mainly on the ground that its

taxation was light, and that it added largely to the wealth of the country.

Regardless, however, of either consideration, the Indian Government has, for more than half a century, been busily engaged in piercing the Himalaya Mountains—now at one point, now at another; and has persisted in this policy in the face of the plainest evidence of its disastrous character, politically as well as financially. Our relations with Afghanistan constitute the part of this policy that is best known to the world, but even here its financial and political consequences to India are very inadequately appreciated. Financially, we have expended about a hundred millions of the wealth of India, and increased the annual cost of our Indian army from twelve to close upon twenty millions, with the result that we have established ourselves in a single corner of Afghanistan which will become immediately untenable if the Russians in Asia occupy Herat, which they can do whenever they choose. That the Indian Government is well aware that our position in Afghanistan is untenable in the event of a Russian advance, is shown by its taking part in the demarcation of the frontier dividing Afghanistan from Asiatic Russia—an act without meaning unless it had resolved to regard the violation of this frontier as a *casus belli*. As it is absolutely certain that, in the event of a disagreement with Great Britain in Europe, Russia will not respect this frontier, but will occupy Herat and all the country lying between the Oxus and the Hindu-Kush, the expenses already borne by India, in order to obtain a footing in Afghanistan, are as nothing compared with those which are impending in a not distant future, when, as a consequence of its present policy, the Indian Government will be compelled permanently to occupy both Kandahar and Kabul.

Now, just as the deserts and hills of Afghanistan divided India from Asiatic Russia on the northwest, so the territory of Burmah divided India from China on the northeast. This barrier, also, the Indian Government has deliberately thrown down, and the results to India, financially and politically, threaten to be only less disastrous than most which have ensued upon its policy in Afghanistan. Upper Burmah shows no signs of quieting down. On the contrary, at no time since our occupation have the "dacoits," as they are called, exhibited greater activity, or the attacks upon our posts been of so determined a character. The fact is, the conquest of Upper Burmah was undertaken in total ignorance of the peculiar difficulties attaching to the enterprise. Even in Afghanistan there are several centres of population, such as Kandahar, Ghuzni, Kabul, Jelalabad, the occupation of which gives an invading force the command of the districts from whence they draw their supplies. But there is literally only one city in Upper Burmah—Mandalay—which has always been fed from British Burmah. All the rest of the country, so far as it is peopled at all, consists of little hamlets, self-supporting, and divided from one another by great tracts of all but impenetrable forest. Until this forest has been cleared, the rivers bridged, and roads opened up in every direction, to establish a government or get any real hold of the country is a physical impossibility. Meanwhile, no revenue can be collected; the country remains, indeed, in a chronic state of semi-famine, as the peaceable population have in large numbers abandoned their villages and flocked into Mandalay and other military centres, where they have to be fed by the State. We have (inclusive of military police) about forty thousand troops scattered in small detachments through

the province, and the heavy cost of keeping up this large force falls exclusively on the Indian Exchequer.

Such, so far, have been the financial effects of the conquest of Upper Burmah. Politically its consequences threaten to be no less serious. In the hills which divide Burmah from China and Siam dwell a number of wild tribes—Chins, Kakhyens, Shans, and others—all of which profess a certain allegiance to the Emperor of China. They constantly raid into the defenceless Burmese villages from their mountain fastnesses, but as yet these proceedings have received neither the sanction nor the assistance of the Chinese Government. If that sanction were given, if the Chinese Government allowed its officials in Yunnan to distribute rifles and ammunition among these tribes, then our difficulties in Upper Burmah would be aggravated ten-fold, and, though we doubled our army of occupation, we should be unable to give protection to our subjects, or to follow the raiders into their own country. It is at this moment, when a state of cordial amity with China is a matter of vital importance, that the Indian Government has drifted into a difficulty with Thibet which places that amity in extreme peril.

Thibet, as every one knows, is regarded as sacred territory by the Mongolians and other Buddhist subjects under the sway of the Chinese Emperor. It would in all probability cost the Emperor his throne if he tamely acquiesced in the occupation of the capital, Lassa, by a foreign force, and the whole strength of the empire would be put into the field in order to avert the contingency of its permanent detachment from China. So long ago as the time of Warren Hastings, the Indian Government made an attempt to establish commercial relations with Thibet; and these attempts were renewed a little later on. They led to no result, and the rapidity with which the British overran and conquered India has strengthened the Thibetans in their resolve not to allow us, under any pretext whatsoever, to get a footing on their soil. There is no reason why we should desire to do so. Thibet is, perhaps, the poorest country in the world, inhabited by a scanty and stationary population, and incapable of supporting a larger. At the same time, ever since we conquered Bengal, there have been commercial dealings between British India and Thibet. This commerce, on the Thibetan side, has been carried on by a colony of Cashmere Moslems which has been settled at Lassa for a great many years, and is in high consideration there, and the route followed by them has been through the independent State of Nepal into India. Had we been content to allow matters to continue on this footing, our present difficulties would never have occurred. Unluckily, British merchants, especially during periods of commercial depression, are unceasing in their endeavors to discover new markets for British commodities; and a few years ago, when Lord Randolph Churchill was at the India Office, mercantile influence persuaded him that an effort ought to be made to bring the Thibetan trade down to Calcutta by a directer route than through Nepal. It was represented to him that this commerce was heavily crippled by transit duties levied by the Nepalese Government, whereas, by making a new channel for it through the small hill-state of Sikkim, which was under our protection, not only would these transit duties be evaded, but the distance between Lassa and British territory would be greatly shortened. The Government in Calcutta was alive to the political danger of this proceeding, but Lord Randolph overruled its objections, and insisted upon the organizing of