

tional obligations is equal to seven times the annual revenue of the indebted States. At the liberal estimate of \$1.50 per day, the payment of accruing interest, computed at 5 per cent, would demand the continuous labor of three millions of men. Should the people of the United States contract to pay the principal of the world's debt, their engagement would call for the appropriation of a sum equal to the total gross product of their industry for three years; or, if annual profits alone were devoted to this purpose, they would be enslaved by their contract for the greater part of a generation." Chapters II. and III. treat of the political and social tendencies of public debts, and reveal the power of analysis which distinguishes Professor Adams in so high degree. I have particularly in mind those passages in which he shows, that, while public debts do not create class distinctions, they tend to render such distinctions perpetual. The analysis of the public debt of the United States is likewise specially interesting, for it reveals the surprising extent to which that species of property, at least, is concentrated. It appears that out of a total of \$664,000,000 registered bonds, \$410,000,000 are held in sums of \$50,000 and over. As Professor Adams pointedly remarks, this shows the absurdity of those who would have us keep our debt as an investment for widows and orphans. Chapter IV. deals with industrial effects of public borrowing, and Chapter V. answers the question, 'When may States borrow money?'

The topics of the chapters in Part II. are these: financial management of a war; classification of public debts; liquidation of war accounts; peace management of a public debt; payment of public debts.

Part III. opens with a comparison of local with national debts, and then passes on to an able account of State indebtedness between 1830 and 1850. Here, again, we see the difference between the economist as a man of science and the economist as the advocate of some powerful interest; for example, of corporations. The advocate will dwell on the evils of State enterprise when tried, and, passing lightly over those of private enterprise in the same field, will draw the conclusion that corporations can provide all things better than public bodies like cities, States, or the Federal government. Professor Adams, on the other hand, examines the entire field, conceals nothing, exposes unfortunate failures of public undertakings, and finds that in the Western States, whose history in this respect he has most carefully studied, "whether judged from the standpoints of results or of business probabilities, the State authorities showed greater foresight and greater business conservatism than individuals." While Professor Adams does not wish the States to undertake those kinds of business which are at all times subject to the control of competition, and suitable for private enterprise, he holds — and in this I fully agree with him — "that it was a mistake for the States to abdicate certain sovereign functions in favor of private corporations, for the evils thus incurred have proved greater than the evils escaped."

The remaining chapters of the book deal with municipal indebtedness and the policy of restricting governmental duties as a cure for public corruption and mismanagement. Going below the surface of things, Professor Adams finds in the improper restriction of governmental duties a chief source of bad government. It seems to me that this is beyond controversy when the facts are all reviewed. The whole history of industrial society tends to show that public duties can best be performed by public and responsible agents. It was a great step in advance when States ceased to sell their taxes to corporations and individuals, and to collect them themselves. Another step will be taken when public bodies assume the direct management of natural monopolies like gas-works, water-works, and railways. Are not these natural monopolies now a chief cause of disturbance and corruption? And how cure the disease without removing the cause, and how remove corporations from the field of natural monopolies unless governments absorb the duties they perform? In accordance with this view, Professor Adams very properly recommends the purchase of telegraph-lines by the Federal government as a solution of the difficulty which the treasury surplus occasions. We might then have as good a telegraph service as our present postal service.

It is also in accordance with this general view that Professor Adams recommends that treasury management be kept as free from bank agencies as possible. Our experience in the United

States seems to have demonstrated the wisdom of this. Before Senator Sherman became secretary of the treasury, it was customary to place Federal bonds on the market through the aid of syndicates of bankers, but he saved the United States over a million dollars in the sale of four-per-cent bonds by dealing directly with the public.

When I reviewed Professor Clark's 'Philosophy of Wealth' for *Science*, if my memory serves me correctly, I pronounced it one of the ablest works ever written by an American on the fundamental principles of political economy. I have elsewhere spoken of Professor Adams's monograph, 'The Relation of the State to Industrial Action,' as the profoundest study of the industrial functions of the State in the English language, going far ahead of any thing Mill ever wrote on that subject. I believe the present work on public debts the best work, on the topic with which it deals, to be found in any language.

In view of these facts, and others which might be cited, it does not seem rash to venture to predict that within ten years the recognized leaders of economic thought among English-speaking people will be Americans.

RICHARD T. ELY.

#### NOTES AND NEWS.

LETTERS have been received by the *Montreal Gazette* from Dr. G. M. Dawson, in charge of the Canadian geological party exploring the Yukon district, to date of July 29. The party constructed two boats on Dease Lake, and left on June 3 to descend the Dease River to its junction with the Liard. From that place Mr. McConnell left with two men to descend the Liard. The remainder of the party, with five Indians, ascended the north fork of the Liard to Lake Francis, and, leaving their boats, crossed a long portage of sixty miles to Pelly River, near the abandoned Hudson Bay post of Pelly Banks, where they arrived on the 29th of July, all well. From this place the Indians were sent back, and Dr. Dawson, with Mr. McEvoy and two white men, remained to construct a boat and descend the Pelly to its junction with the Yukon. The country north of Dease Lake proved somewhat varied in structure, having a granitic nucleus with paleozoic rocks on its flanks ranging from Cambrian to Carboniferous, and overlying Tertiary beds. The old portage was found to be entirely disused, and the party had to struggle through tangled woods, often knee-deep in moss. They got over, however, with a month's supply of provisions for the advancing party, and leaving stores cached for the returning Indians. Being north of the latitude of 60°, they enjoyed almost perpetual daylight, and the weather was good. The country is described as possessing well-grown trees, and a great number of the ordinary eastern plants were seen in flower, with some northern and western strangers. Only the great growth of sphagnum mosses and the abundance of reindeer moss give the country a different aspect from that of British Columbia. No Indians had been seen, except those the party brought with them from the coast. Though somewhat later in the season than he had expected to be, Dr. Dawson had still good hopes of reaching the coast before the freezing of the rivers, and the lines of section made by Mr. McConnell and himself will give a good idea of the structure or resources of the country.

— Since starting the third series of his 'Butterflies of North America,' Mr. Edwards has issued his parts in more rapid succession than before, a third number having appeared within the year. As it is the most important iconographic work now issuing in this country, and in artistic merit the peer of any that have yet illustrated the natural history of America, we may once more draw attention to it. Three species are illustrated, all from the Pacific coast, to each of which a quarto plate is devoted. Two of them, species of *Melitæa* and *Argynnis*, have liberal illustrations of the early stages, in which the points necessary to a good understanding of the structure of the caterpillar at different stages are especially well brought out. Considering that the insects had to be raised thousands of miles away from home, from material specially sought for, the success of Mr. Edwards is remarkable. The text in this part is almost entirely made up of technical details; and the third plate, another of the multitudinous species of *Argynnis*, is inferior in interest and in execution to the others, though the latter point would hardly be noticed were it not in a work of such uniform artistic excellence.