(7) "First Book of Forestry," by Filibert Roth. This little elementary book is most charmingly written, giving in simple terms, and in an attractive form, the first principles of forestry. Although the illustrations are taken from species growing in the United States, I can strongly recommend the little book (published by Ginn and Company, pp. 261, price 3*s.* 6*d.*) to landed proprietors and foresters in this country.

I have no doubt that these publications form only part of those which have lately appeared. All show signs of a good grasp of the subject, and prove the vigour with which it has been taken up. As already indicated, the forests of the United States are at present worked under a heavy deficit, as compared with production. This deficit will increase with the growth of the population and the further development of the industries of the country, and this will go on until a sufficient area of forests has been placed under systematic management. That measures to bring this about have not been taken a day too soon will be evident when it is considered what the requirements of the country are. Not only are enormous quantities of wood fuel wanted for a population of some 80 million peoples, but timber in proportion is required for pulp wood, posts, railway ties, poles for telegraphs and for piling, mining timber, ship timber, cooperage and wagon timber, lumber generally, and for many other purposes. To give an idea of what the total requirements may amount to, I shall pick out one or two items. There are upwards of 200,000 miles of railways in the States, which require annually some 70 million railway ties. To keep up this supply, some 8 to 10 million acres of well-managed forests are wanted. The annual requirements of general lumber are at present estimated at 30 billion feet, board measure, requiring not less than some 100 million acres of forests to keep up the supply. The demands for pulp wood and mining timber are already enormous, and likely to increase. The exports of timber from the States amount to a little more than one million tons a year, and these are already considerably exceeded by imports from Canada.

On the whole, then, the reservations made up to date can be considered only as a moderate beginning in the right direction. To meet the future requirements of the nation, the present area of reservations must be largely increased and they must all be brought under systematic protection and management. However, the people and the Government are evidently determined to do what is necessary, and their efforts up to date bear testimony to the energy with which any question bearing on the general welfare of the nation is taken up and carried through.

Can we in this country not learn a lesson from the above facts, as we have been obliged to do in more than one other respect of late years? Our timber imports have latterly grown very rapidly, far more so than the increase of the population, while the sources of supply are becoming more and more precarious. It is all very well to say that we can pay for the imported timber, but what when the sources of supply fail? And all this time we have some 13 million acres of waste land and some 12 million acres of mountain and heath land used for light grazing in these islands, or a total of 25 million acres which yield a very small return or none at all. One-quarter of that area put under forest and treated in a rational manner would supply all the timber we require (apart from limited quantities of tropical timbers) and keep some 25 million pounds sterling in the country which we now send abroad every year to pay for the imported timber. And how many of the unfortunate unemployed, who are becoming the nightmare of our city authorities, would not find healthy employment in the country if a real effort were made to grow our own timber at home?

W. SCHLICH.

## *THE ELECTROCHEMICAL SOCIETY.*

LAST March a few of those interested in the advancement of the study of electrochemistry in this country held a meeting in London. After some discussion as to the best means of advancing the object which it had in view, the meeting unanimously agreed to endeavour to form a society of electrochemists. A small committee was then appointed, which, after holding several meetings, sent out circulars to those who it was thought would be interested in the formation of such a society. A considerable number of favourable replies was received, but some who wrote deprecated the idea of adding yet another to the already large number of scientific societies. The committee then approached several existing societies, in order to see whether it might not be possible to work in conjunction with one or other of them. But although the replies received were couched in friendly terms, none of these societies seemed inclined to make any special effort to help forward the movement.

In these circumstances it was decided to call a general meeting of supporters of the movement to inaugurate an Electrochemical Society. By the kind permission of the committee of the Faraday Club, the meeting was held in the club rooms at the St. Ermin's Hotel, on the afternoon of February 4.

Mr. Swinburne, chairman of the committee, took the chair, and briefly reviewed the circumstances which had brought the meeting together. He emphasised the importance of the electrochemical industry abroad, and pointed out how exceedingly backward we are in this country. Mr. Swan, in a brief speech, then proposed the formation of the society, and said that there was no doubt but that it would be of great scientific and commercial value. Mr. Alexander Siemens seconded the motion, which was carried unanimously.

Mr. Swinburne then read out a list of those who had been nominated by the committee and had expressed their willingness to serve on the council of the society. Mr. Swan, F.R.S., was elected president, the vice-presidents being Lord Kelvin, Prof. Crum Brown, F.R.S., Sir Oliver Lodge, F.R.S., Lord Rayleigh, Mr. Ludwig Mond, F.R.S., Mr. Alexander Siemens and Mr. J. Swinburne. The committee's recommendations were unanimously endorsed, and after a short discussion, and a vote of thanks to the committee of formation, the meeting separated.

The youngest of scientific societies in the country started off with a promised membership of 150. There is, however, very little doubt but that in a short time many more, who have only been waiting for the movement to become an assured success, will join. Already since circulars calling the meeting were sent out, several who in the first place refused their support have sent in their names for membership.

The science of electrochemistry, which was initiated in this country through the splendid work of Davy and Faraday, has been allowed to languish, and but little attention has been paid to its great advancement abroad. In Germany a flourishing society, which issues a weekly journal, has been in existence for more than eight years. The Americans have a very vigorous society, which was established last year. The British society has been established with the object of advancing both pure and applied science. One is often met by the cry that electrochemical industry is all very well in countries where here is plenty of cheap water-power, but that it will never be a success when you have to depend upon coal as an initial source of energy. But there is such a source of power as the Mond gas, and gas engines are every day becoming more perfect. Again, coal is cheaper in this country than in most places where there is an abundance of water-power. In some directions we may be handicapped; to a large extent this is due to our own inertness—our great chemist, Faraday, laid the foundation-stone of electrochemical science—we have left it to others to build thereon. But the building is not complete; indeed, it may require to be partially pulled down and rebuilt. The Electrochemical Society has been formed to rehabilitate the science in this country, and its promoters look forward with the sanguine hope that when the scientific history of the next decade is written, British discoveries and inventions in the domain of electrochemistry will not be behind those of any other country.

All interested in electrochemistry and physical science and who are willing to help forward this society should send in their names to Mr. F. S. Spiers, Grosvenor Mansions, Victoria Street, Westminster.

## *AGRICULTURAL NOTES.*

IN a shilling pamphlet published at the offices of the *Market Lane Express*, Mr. W. J. Malden, of the Colonial College, Hollesley Bay, discusses the merits of ten new "potatoes with money in them." Hundreds of new varieties have been raised in the past few years, but nearly all of those named in the pamphlet have been produced by one grower—Mr. Findlay, of Markinch—and this fact indicates that to raise valuable new



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