orders, now has the goods of other countries brought daily and cleverly to his immediate notice, by adroit commercial travelers or by extensive catalogues, in the language which he understands, which give him every particular of the article he wants *in the weights and measures and currency of his own country.* What English firms carry a commercial enterprise to this extent? Some doubtless do; the majority do not. But these things must now be done, and many others, unless we are willing to give up without a struggle our well earned commercial and industrial supremacy."

SOFIA, October 14, 1896.—"I have several times referred, in previous reports, to the difficulties which arise to hindrance of commerce in consequence of the obstinacy of Great Britain in adhering to its antiquated system of weights and measures and money."

VERA CRUZ, December 3, 1896.—"The compulsory use of metric weights and measures with regard to British goods exported to foreign countries and their use in quotations and advertisements of such goods, in lieu of Imperial weights and measures, would greatly tend to the benefit of the British export trade."

AMOY, November 17, 1896.—"For many years I have been convinced that the introduction of the Decimal System into our weights, measures and money would effect an immense saving of labor and would vastly increase the wealth of our country, and that it would greatly facilitate the sale of our commodities to foreign countries. I am very much rejoiced that an association has been formed to educate public opinion at home as to the advantages of the Decimal System and to bring the matter to the cognizance of the government."

FOREIGN OFFICE, LONDON, November 17, 1896.—"I am directed by the Marquis of Salisbury to inform you that a dispatch has been received from Her Majesty's Agent and Consul-General at Cairo. Lord Cromer considers that a very general opinion undoubtedly exists in Egypt that British trade with that country would benefit by the adoption of the Metric System of Weights and Measures."

It was voted that the next meeting of the Society be held at such time as the Council shall direct.

THE APPRENTICESHIP QUESTION.

THE *American Machinist* has been doing a work of great interest and importance to the sociologist and the political economist, in the collection of facts relating to the apprenticeship question. Its editors have sent out to a large number of employers and managers of manufacturing establishments, and also to representative men among the trades-unions, a circular letter, calling for their experience and opinions relative to the desirability of maintaining the old methods of apprenticeship, and of thus insuring a supply of skilled labor in the coming generation. The summary of this, which is probably the first, attempt to secure reliable information at first hand, in this manner, is published in the issue of December 24th, which is substantially all devoted to the subject. It makes a mass of material which will well repay study and serious consideration.

A discussion in which this matter was made prominent took place at the Detroit Meeting of the American Society of Mechanical Engineers, which showed that the great leaders in the manufacturing industries of the country were very much alive to the importance of this question, and some interesting facts and opinions were there given, for which the transactions of that Society may be consulted. Articles appearing in the *Century Magazine* in 1893 also bear directly upon the subject. In the latter discussion, however, it is assumed that apprenticeship is abandoned, and that trade schools only can be expected to replace the older system in the supply of skilled labor. This assumption is proved to be without as much foundation as had probably been generally supposed. Of the 116 establishments contributing to this later discussion, 85 take apprentices—73 per cent. of the whole number—and 92 per cent. of these express themselves as satisfied that the system is a good one, even for our time. Forty-seven per cent. of all those taking apprentices have written agreements and contracts with them. The general trend of testimony seems to be in favor of taking a boy for a probationary period, to ascertain his capabilities and disposition, and

then, if approved, binding him by contract for a definite time, retaining a part of his wages in the earlier period to insure his remaining the full time agreed upon; one of the difficulties met with being the fact that the average boy has little idea of the binding force of a contract.

The trades-unions apparently exert no important influence either for or against the system. Where they do seek to control at all, it is by restricting the number of apprentices to that proportion which, in their opinion, will give a sufficient number without flooding the trade with unemployed young men or displacing older workmen by their youthful rivals. According to the editors of *The American Machinist*, no foundation has been by them discovered for the sweeping conclusions of the *Century* articles. In so far as the system, once universal, of taking apprenticeship has been given up, the fact is probably due, not to adverse action of trades-unions, but to the fact that modern methods of manufacturing, in many cases, do not well lend themselves to this older way of providing workmen. But "nothing like a complete or general abandonment of apprenticeship has taken place in machine shops, and apprentices can be, and are, taught the trades of machinist, molder, pattern-maker, etc., with entire success and with satisfaction to all concerned, even in shops where modern methods of working and management have been most highly developed."

One of the most important deductions from all this valuable testimony is that it is essential to success that, first of all, boys should be admitted to the privileges of apprenticeship *only* when good natural mechanics, when evidently intended by nature for the work, and when earnest and ambitious, honest and frank and reliable.

These communications and the editor's comments will well repay deliberate study.

R. H. Thurston.

HENRY L. WHITING.

Mr. Henry L. Whiting, Assistant U. S. Coast and Geodetic Survey and Chairman of the Massachusetts Topograpical Survey Commission, died at his residence in West Tisbury, Martha's Vineyard, on Thursday, February 4th, the last day of the seventy-sixth year of his life. Mr. Whiting's position as a public officer was in many ways unique; his services in the corps to which he belonged were noteworthy, and he had, in addition, filled many positions of responsibility and dignity, which came to him in recognition of his high character and professional accomplishments. A brief account of a career so remarkable will be of interest to the many who knew him, either personally or through his work, and to all who appreciate a life full of useful activities in faithful and efficient public service.

In the length of that service it is doubtful if his equal is now living. Had Mr. Whiting lived a few weeks longer he would have entered his sixtieth year of continued public service, all as an officer of the Coast and Geodetic Survey, which he entered at an early age. He served some time under Hassler, the first Superintendent, and for many years he stood alone as the only member of the corps who had served under *every* Superintendent of the Survey.

Mr. Whiting was born at Albany, New York. His father was a Judge of the Court of Common Pleas at Troy. His grandfather was William Bradford Whiting, a colonel in the Revolutionary War and a lineal descendant of Governor William Bradford, of the Plymouth Colony. One of his brothers was a classmate of General Grant at West Point and held high rank in the army at the time of his death; another was graduated at the Naval Academy, was one of Commodore Perry's officer's in the Japan Expedition, himself holding the rank of Commodore at the time of his death. Others of the family were distinguished, but Henry