the education of the child easier, will make it vastly more difficult, because it will then be necessary to teach the old system, which will persist in use, and also to teach in fact as well as in name the metric system with the confusing ratios, direct and reciprocal, between the English and metric units.

If any one wants proof of this he can find it in the same French arithmetic. One chapter, 'Nomenclature des anciennes mesures et comparison avec les nouvelles,' treats of old units, a few of which are: *toise, pouce, ligne, aune, pas, lieue, perche, arpent, solive, corde, setier, muid, mine, minot, livre, once, denier, grain.*

If he still doubts let him go to some great French industry, textile manufacturing for example, and there study the chaos of weights and measures, thus described in 1902 by Paul Lamoitier, a French manufacturer:

> We are as much in the anarchy of weights and measures for the textile industry as at the time of the Revolution. * * *
>
> The famous aune, do you know its equivalent? Exactly 3 feet, 7 inches, 10 lines, and 10 points, or in other words, 1.188447 meters; the foot being equal to .324839 meter and divided into 12 inches, the inch into 12 lines and the line into 12 points.
>
> You would not imagine this as you are in the habit of calling it 1.19 meters. You laugh! It is, however, no laughing matter, unless you consider it as I do, profoundly ridiculous. * * *
>
> I will take my oath that the manufacturer of Rouen if he has not studied each section separately, has no idea what is the standard of Reims or the denier of Lyons or Milan. And on the other hand the manufacturers of Reims and Lyons are likewise puzzled in making comparisons of the diverse numberings of the diverse materials.

Such is the condition of French weights and measures at the present time. The evidence here presented is from French sources and makes ridiculous not only the claim of saving in education, but the whole metric proposition as well. This school children fallacy is confined to English-speaking countries where in the absence of experience with the metric system the imagination supplies the foundation for argument. The French labor under no such delusion.

Of course, if they insist, English-speaking countries can learn about the metric system in the high priced school of their own experience, but more than a century of experience in France can be had without money and without price.

Samuel S. Dale.

Boston, Mass.,
March 27, 1905.

Will the Metric System Save Time in Education?

In the article entitled, 'The Metric Fallacy,' Science, March 3, p. 353, is the statement that, in the New York public schools: 'The time allotted for all branches of mathematics amounts to 34⅛ weeks for the eight years.' These figures relate to the actual time spent in recitation, which extends through nearly one year of school life, that is, about one eighth of the entire time. A complete education, to which Lord Kelvin referred in the British Parliament, includes high school and college, eight years more, which, with the same division of time, gives two years of solid mathematics. In England, one sixth, instead of one eighth is given to mathematics, and it is not extravagant to say that one half of this is wasted because of our barbarous weights and measures. Part of the economy of time shown in this country is due to our decimal money, part to the disuse here of many of the old English measures still taught in the English schools, and part to the greater use here of the metric system in our higher education, or perhaps it would be more correct to say, the non use therein of the English system.

Wm. H. Seaman.

Special Articles.

The Pelé Obelisk Once More.*

The recent massive-solid extrusion from within the crater of Mont Pelé has been de-

* Descriptions of the 'dome' and of 'spine' or 'obelisk' of Mont Pelé, with references to many previous papers relating to the volcano, may be found in: Hovey, E. O., 'The New Cone of Mont Pelé and the Gorge of Rivière Blanche,' in *American Journal of Science*, Vol. XVI., 1903, pp. 269–281. Hovey, E. O., 'The 1902–1903 Eruptions of Mont Pelé, Martinique, and the Soufrière, St. Vincent,' in *Comptes Rendus IX. Congrès géologique international*, de Vienne, 1903, pp. 707–738.