until the reaction was completed. The most decided deflection of the instrument occurred in those cases where the reagent was permitted to act more vigorously about *one* electrode than the other.

To test as to the possibility of the phenomenon being due to a difference in concentration at the electrodes, the cell was nearly filled with water and a saturated solution of NaCl was introduced into the water about *one* of the electrodes. While a very slight deflection of the needle was manifest, it was not in any case comparable with the result mentioned above, being not greater than one scale division.

Another possibility is, of course, a thermal effect. To test this the cell was again filled with water and concentrated H_2SO_4 was introduced about *one* of the electrodes. A slight deflection was noted—in magnitude about the same as in the last-mentioned case, one scale division.

In addition to the above evidence against a possible thermo effect might be mentioned the fact that the magnitude of the current did not appear to be a function of the heat of reaction.

The above would seem to indicate that the current is not due to a difference in concentrations at the electrodes or to a thermo-effect. However, the data at present at hand would scarcely justify a definite conclusion in this respect.

As to the ultimate cause of the current observed I am not at the present writing prepared to venture an opinion. I make this communication in order that other investigators may test the matter for themselves.

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PEAR-LEAF BLISTER-MITE (ERIOPHYES PIRI NAL.).

As with many of our orchard pests, this is an introduced species, and was undoubtedly brought into the United States in importations of nursery stock. Since its introduction it has, largely through the nursery trade, been widely distributed in the pear-growing sections, where it is usually a familiar pest of this kind of fruit. Within the past few years added interest has been shown towards this species in this state because of its attacks upon apple foliage. In 1902 the attention of this station was directed to its work in two widely separated orchards, but during the past two years it has been very conspicuous in many orchards in various parts of the state where it promises to be an important pest of this fruit.

In the study of the habits and distribution of *Eriophyes piri* in the state of New York, two other European species have been found upon pear and apple leaves. These have been recorded by Dr. Nalepa by the names of *Epitrimerus piri* and *Phyllocoptes schlechtendali*. The latter are distinguished from *Eriophyes piri* in that the abdominal rings on venter are nearly twice as many as on dorsum. *Epitrimerus piri* differs from *P. schlechtendali* by having two longitudinal furrows on dorsum of abdomen. The former is found upon apple and pear leaves, while the latter has so far been detected only on apple foliage.

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QUOTATIONS.

THE METRIC SYSTEM.

THE American people have a world-wide reputation for their ingenuity in devices to save time and labor. It is an anomaly that such a progressive people has failed to see the enormous loss of time and labor incurred in the retention of medieval and confusing weights and measures.

Three fourths of the enormous foreign trade of the United States last year was with countries having the metric system—the system now in use among four hundred and fifty millions of people. Merchants import liquids by the liter, textiles by the meter, foods and drugs by the kilogram, and the innumerable consignments must be calculated into and sold by different measures of volume and of length and by avoirdupois weight and troy weight and apothecaries' weight. In exporting commodities, on the other hand, quantities, weights and measures must be laboriously converted

into the terms of the metric countries to which they are shipped.

One may imagine the time and labor lost in these processes and the tendency to prevent expansion of our commerce that these vexations must exert, for where other things are equal the four hundred and fifty millions of metric potential customers naturally incline to deal with those who speak the same trade language as themselves. The views of exporters and importers recently presented through the *Herald* show how keenly they feel this handicap and how eager they are for the adoption of the simple, uniform and widely used system which would clear the existing obstructions from the pathway of commerce.

If we had no commercial relations whatever with foreign countries it would seem incongruous that the American people, while progressing in all other directions, should have failed to adopt such a unified and simple system as the metric for the facilitation of internal trade—and this is nearly twenty times as large as that done with other countries. The first step toward adopting the metric system was taken forty years ago, when Congress passed the law legalizing it in contracts and court pleadings. Six years after that step was taken Germany adopted the metric system —and it has contributed not a little to the industrial and commercial growth at which the world marvels—while we are still weighing copper by one 'standard,' silver by another and drugs by a third, with other confusions 'too numerous to mention' in measures of volume and length.

We have been outstripped in the adoption of the metric system by Japan and by countries that the average American condescendingly regards as half civilized. The metric is taught in our schools, but the children must also learn the complicated systems that are retained in use; although a full year's time would be saved in their education if these were dropped. In electrical operations, in engineering, in pharmacy, in industries that demand nice measurements, like the manufacture of automobiles, and watchmaking, and in numerous other fields the metric system is in common use to-day. Why longer continue the confusion and the loss of time and labor and accuracy involved in retaining the obsolete weights and measures? Congress should awaken to the fact that this is the twentieth century and comply with the demand for adoption of the metric system.

CURRENT NOTES ON METEOROLOGY.

METEOROLOGY AT THE EIGHTH INTERNATIONAL GEOGRAPHIC CONGRESS.

The Eighth International Geographic Congress was held in the United States in September, 1904, and the *Report* has just been published, 'by courtesy of the United States Congress at the Government Printing Office.' The number of papers devoted to meteorological and climatological subjects was not large, but the matters treated in these papers were of some general interest. Dr. Cleveland Abbe, Jr., in his 'Meteorological Summary for Agaña, Island of Guam, for 1902,' presents a discussion, along approved lines, of the data collected during one year at Guam, and while the period is very short, the tropical conditions of the island make a long series of observations much less necessary than is the case in a higher latitude. Professor A. J. Henry, of the Weather Bureau, in an account of 'A Climatological Dictionary of the United States,' calls attention to the summary of the climatological work that has been done in this country which is now in preparation by the Weather Bureau. The first chapter of the new volume, which is really a census of the climatology of the United States, will treat of the broader features of climate, and the remaining chapters will deal with the climates of the several states and territories. The records of about 600 stations will be used. The 'Scientific Work of Mount Weather Meteorological Research Observatory' is considered by Professor F. H. Bigelow, who states that the Weather Bureau is 'looking to the future needs of a rapidly developing and intensely interesting branch of science' and is 'trying to build the very best observatory possible.' Frequent mention of the Mount Weather Observatory has been made in these