

had both worked in the Parry Sound, Ontario, region, and had agreed upon the mining story as the most plausible and easily supported account of the origin of the platinum. There was no evidence to indicate that Fredericks was implicated in the theft of the platinum or in the attempted disposal of it, except that he acted as a guide for Brown in New York.

It was learned that Brown's stop at Charleston, while on the way to New York, was in the nature of a visit and apparently had no connection with the stolen platinum or the government plant at Nitro.

DRAWINGS OF STANDARD APPARATUS

Editor of the Journal of Industrial and Engineering Chemistry:

The work of the AMERICAN CHEMICAL SOCIETY Committee on Guaranteed Reagents and Standard Apparatus will necessarily be slow in regard to reagents and apparatus which have been in use many years. There is, however, one line of work on which immediate results may be obtained if the editors of journals and authors of papers will cooperate with the committee.

When a new piece of apparatus is described the committee would be glad to recommend as standard the exact form used by the author who describes it. The makers of apparatus would be glad to furnish their customers with apparatus like that of the author. One who has not given special attention to this point would be surprised to learn the small proportion of instances in which this is possible from the illustrations and descriptions published. In many cases there may be a wide range of dimensions which will prove entirely satisfactory. If the author considers this point he will know that any chemist who may desire to use the apparatus will know the proper dimensions, but makers who never have used such apparatus will be called upon to make it merely from the published drawing, and even if they all succeed in making something which can be used there may be several sizes and shapes made for the same piece of apparatus. This causes unnecessary work for makers and frequently dissatisfaction on the part of their customers.

A simple and obvious remedy would be for editors of journals to refuse to publish descriptions or illustrations of apparatus which were not sufficiently complete to enable any good workman to reproduce the article described. Editors to whom this suggestion has been made have expressed sympathy with the idea but have not been sure that they could enforce such a rule. Some authors are not skilled draftsmen and cannot easily have such work done for them.

The Association of Scientific Apparatus Makers of the United States of America is so interested in this question that when the matter was taken up with the chairman of its Committee on Standardization he agreed to take care of the drafting needed to make proper drawings of apparatus recommended as standard by the Committee on Guaranteed Reagents and Standard Apparatus of the AMERICAN CHEMICAL SOCIETY. Of course this offer should not be taken to cover the making of illustrations of every sort. It is intended primarily to take care of the newly described apparatus which the two committees consider likely to be used rather widely. If you will secure from authors complete dimensions, even on a rather rough drawing, the Association of Apparatus Makers will see to it that you have a suitable drawing for reproduction, provided the two committees think it worth while.

Authors who submit complete drawings and specifications will save some time in publication of papers if you adopt this policy. Any delay in publication of their papers on this account will cost much less to the interested parties than the present common practice of publishing with nothing to indicate the dimensions of apparatus described.

U. S. GEOLOGICAL SURVEY
WASHINGTON, D. C.
June 16, 1920

W. D. COLLINS, *Chairman,*
Committee on Guaranteed Reagents
and Standard Apparatus

JOSEPH A. HOLMES SAFETY ASSOCIATION

The Joseph A. Holmes Safety Association has recently announced the award of seven gold medals to miners for special deeds of bravery in the saving of human life in the United States during the last three years.

The Association was established in 1916 in memory of Dr. Joseph A. Holmes, the creator and first director of the Bureau of Mines, and is composed of representatives of the leading technical and labor institutions of the United States, and receives its support through voluntary contributions.

In addition to the awards for heroism, the Association plans to recognize with awards the invention and application of safety devices in the industries concerned. It hopes in the future to devote attention to improvement of health conditions and to combating occupational diseases in mines and metallurgical establishments.

MACMICHAEL TORSIONAL VISCOSIMETER

Editor of the Journal of Industrial and Engineering Chemistry:

Referring to the article in the March issue of THIS JOURNAL (page 282) on the MacMichael Torsional Viscosimeter, by Winslow H. Herschel, of the Bureau of Standards, I regret very much that I was not advised that this work was under consideration, as I would have been very glad to furnish one of the late model instruments for testing. The machine actually used was one of the very earliest models, not even provided with heating coils, or with a number of other improvements found in the later models.

Referring to the paper itself, my attention has been called to the fact that the term "poise" had been officially adopted as the name of the unit of viscosity in the C. G. S. system. I immediately wrote to the manufacturers requesting them to discontinue the use of the term "degrees M," equal to 0.1 poise, and to graduate all future machines for direct reading in poises, which I understand has been done.

It was never intended that this machine should be calibrated according to a mathematical formula, as this is obviously impossible, or at least impractical, from the very nature of the instrument.

The method recommended is to secure a sample of oil or other standard testing fluid, having a known viscosity nearly that of the samples to be tested. This sample should be tested by the Bureau of Standards at approximately the same temperature at which the machine is to be used, as 60°, 100°, or 210° F. With such a sample it is only the work of a moment to adjust the speed of the machine to give the reading on the dial corresponding to that of the standard sample. The readings for other fluids of the same general temperature and viscosity will be found closely accurate, the results, of course, being expressed directly in poises.

Where large differences in viscosity or temperature are dealt with, more than one standard testing sample is recommended, corresponding to various conditions to be met. It is also suggested that a large sample of fluid be procured, say, 0.5 or 1 gal., as there is always some slight loss in handling during tests. Of this, 100 cc. are to be sent to the Bureau of Standards for testing. The charge for this work is very moderate.

It is not particularly difficult to design a machine having a relatively simple mathematical treatment, giving primary readings for determining viscosity directly in poises. Such a machine would probably follow along the lines already laid down by Couette, using concentric cylinders, protecting end caps, etc. Such a machine, however, would probably not be well adapted to ordinary commercial uses.

The present machine was designed to fill a definite need in the testing of colloids and suspensions, as well as true solutions. It is not intended to give primary readings from which original data can be calculated, its function being to compare the vis-