

The civil engineering phase of standardization is important on account of considerations of safety, health, life, and economy, for which it provides.

Water-supply, sewerage, roads, bridges, hydro-electric schemes, and, indeed, almost all the constructional activities of public authorities are substantially dependent for their efficiency upon civil engineering standards.

The foregoing represents but a few examples of the major importance of the work of this committee. The extension of standardization in this sphere will assist to make the work of the civil engineer still more efficient and economical to the advantage of the whole community.

Chemical Divisional Committee (Six Meetings).

During the year forty-eight British, seven Australian, and two South African draft standard specifications, and twenty-eight British, one Australian, and one South African standard specifications have been examined by this committee. Twenty-two of the draft standard specifications have been recommended for adoption as New Zealand standards and four standard specifications endorsed as New Zealand standard specifications as follows:—

N.Z.S.S.	B.S.S.	
140	733-1937	Density Bottles.
141	729-1937	Methods of Testing the Zinc Coating on Galvanized Articles other than Wire.
142	616-1935	Sampling of Coal Tar and its Products.
146	453-1932	Determination of the Fusion Temperature of Coal Ash.

Proposals have been prepared for specifications for pollard, meat-meal, and meat and bone meals. The draft specification for meat-meal and meat and bone meals was circulated to the affected interests for comment, as a result of which it has been recommended that a representative sub-committee should be appointed to give the matter further consideration, and it is intended to institute such sub-committee before the matter is carried further.

The draft provisions for minimum requirements for pollard will be released for circulation at an early date.

To state that practices and processes of modern chemistry are founded upon standards would probably not be an overstatement of the importance of this section of standards activity. Chemicals, in the first place, are brought to very rigid standards and thus very considerable saving of time and money is effected because their characteristics, strengths, and constituent elements are known. Different standards for the same chemical, according to the purpose for which it is used, are frequently necessary, and in all cases the selection of the different strengths and degrees of purity in the one chemical is dependent upon the predefinition of these factors, which is made available to interested parties through the use of standards.

The chemist has for many years realized the importance of using standard methods, and standard apparatus, wherever possible, in order to save time and expenditure. An outstanding instance of this is the use of standard methods for the analysis of water, which result in the analyses of waters carried out in various parts of the world being easily comparable. It is acknowledged also that laboratory testing is greatly simplified and rendered much more effective when a standard is set, and the tests can be directed towards ascertaining whether the goods, equipment, or material comply with the accepted standards for example, roading materials, paints, lubricating-oils, and other innumerable commodities.

In regard to apparatus, a very great advance has recently been made by the standardization of ground joints and stoppers. This means that stoppers are interchangeable, and thus a valuable piece of apparatus is now not rendered useless by the loss of its stopper.

Another fairly modern development is the availability of standard samples of various materials such as special steels, iron-ores, and bronzes which have been very carefully analysed by expert analysts, the analyses being stated on the bottle, accompanied by a certificate and, where necessary, the details of the methods of analysis employed are stated.

Standard tests are a further valuable aid to the chemist, and are being used increasingly. The individual investigation and thought that would frequently be necessary to work out testing formulæ are thus avoided, and, moreover, a standard test produces results that are uniformly comparable. Even in cases where chemists are working according to their own or some locally established method these standard samples and tests enable analysts to improve their technique by ascertaining whether the results obtained by them give equal results with those obtained by the most expert analysts in their own particular field.

Testing Facilities Committee (Two Meetings).

The last annual report referred to the recommendation that had been made for the preparation of a schedule of testing apparatus available in New Zealand. The information has been compiled under appropriate headings with an adequate index, so that this schedule, comprising eighty-two pages, is now available for reference.

The preparation of this work has been commended by a number of interests to whom it has been despatched, with expressions of opinion that it will prove to be extremely valuable as a quick means of indicating where any class of testing may be carried out most effectively and conveniently.

Information will be assembled continuously concerning additional equipment that is available with a view to revising the schedule at regular intervals.