SPECIAL CORRESPONDENCE

BRITISH COMMITTEE ON PETROGRAPHIC CLASSIFICATION

AT the Centenary Meeting of the British Association for the Advancement of Science a committee was appointed to examine and report upon petrographic classification and nomenclature. Many outside the few appointed are interested in the problems that will be discussed, and the committee therefore invites readers of SCIENCE to forward their views to the secretary.

In the first place the committee is attempting to evaluate the data available for establishing a sound classification of igneous rocks, and invites replies to the following questionnaire:

(1) Do you agree that classification should be based upon ascertainable facts (*i.e.*, composition, both mineral and chemical, texture and geological occurrence, as distinct from hypotheses—of origin, etc.)?

(2) To what extent should the classification be based upon chemical composition as expressed in percentages of specific oxides?

(3) How far should the classification be based upon facts of geographical distribution, *i.e.*, upon the recognition of petrographical provinces?

(4) Are you in favor of the separation of igneous rocks into *three* divisions: plutonic, hypabyssal (dyke rocks) and extrusive (lavas), following Rosenbusch and others; or into two divisions only, following Zirkel, Iddings and others?

(5) If in favor of three divisions, would you base the separation of the second from the third upon (a) texture or (b) actual geological occurrence?

(6) Should the naming of a rock be determined by the nature of the eruptive rocks with which it is associated? For example, trachybasalts (trachydolerites, Rosenbusch) are only distinguished from normal basalts by their occurrence with other alkali-rocks.

(7) In aiming at a complete classification for general acceptance by petrographers, are you in favor of retaining time-honored rock names, with meanings differing in many cases from those originally given to the names, or of introducing a new nomenclature?

(8) Do you think that the requirements of field geologists should be allowed to influence the classification and nomenclature of rocks, or should there be a simple classification with field-names for general use, and a more complete classification with more exact names for use in accurate petrography.

W. CAMPBELL SMITH,
Chairman.
A. K. WELLS,
Secretary.
UNIVERSITY OF LONDON

SCIENTIFIC APPARATUS AND LABORATORY METHODS

A SIMPLE DEVICE FOR ADDING LOAD AT A STEADY RATE

THE firmness or resistance to crushing of apples, pears and other fruits has been found to be a useful index of their maturity and suitability for harvest. To obtain this firmness in the form of a number mechanical devices are used. The time of harvest of green peas for canning is an extremely critical factor in the quality of the canned product and therefore an effort has been made at this station to devise a similar test for peas.[1] The spring balance used did not give the degree of precision desired, and the reading was visible for such a short time that it was likely to be misread.

In this work and in a similar test to determine the toughness of peas after canning[2] it has been thought to be necessary to add the load at a constant rate until the peas collapsed. To serve this purpose a dispensing burette of glass filled with mercury has been recommended.[2] Obviously mercury is open to objections on account of its cost and toxicity, to which must be added the fact that it is a liquid and therefore will flow more rapidly at a given position of the glass stopcock when the burette is nearly full than when it is nearly empty.

The device illustrated has certain advantages for this test and any similar test where the application of a load at a constant and reproducible rate up to fifty pounds (25 kilos) is desired. It is not essentially new, since it resembles a common device for determining the tensile strength of Portland cement. It uses alternatively lead shot or any other round pellets, and depends upon the fact that the flow of these through an opening under their own weight is easily stopped.

As a reservoir for the shot a cylindrical container is provided with a bottom in the shape of a cone of preferably less than 60°. The tip of the cone is cut off by successive trials until the opening left is just

[1] N. Y. Agr. Exp. Sta. (Geneva) Tech. Bull., 176, 1931.
[2] U. S. Department of Agriculture Circular No. 164, 1931.