

The Canadian Engineer

Established 1893

A Weekly Paper for Civil Engineers and Contractors

Terms of Subscription, postpaid to any address:

One Year	Six Months	Three Months	Single Copies
\$3.00	\$1.75	\$1.00	10c.

Published every Thursday by

The Monetary Times Printing Co. of Canada, Limited

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HYDRATION AND SHRINKAGE OF MORTARS

SOME interesting experiments have recently been conducted by the U.S. Bureau of Standards to determine whether a reduction in shrinkage of mortars can be produced by greater "hydration." The first step attempted was the production of a "hydrated" mortar by the use of a wet plaster base, but the results showed that hydration could not be readily obtained in a 1:3 mortar, if obtained at all, by the use of such a base, and was only possible when the top of the form was completely covered with metal and glass. When this was done, not only was contraction eliminated during the first 24 hours, but some expansion was produced. It was also found that by the use of a non-absorptive form with a metal and glass covering, very nearly the same results could be secured, thereby showing that very little water was given up by the wet base. As the mixes were made richer, the effects of the wet plaster base became more and more evident.

TECHNICAL MEN IN GOVERNMENT EMPLOY

TECHNICALLY trained men in the employ of various government departments at Ottawa have formed an association to advance their mutual interests. This move was made at the instance of the Ottawa Branch of the Engineering Institute of Canada. A meeting was held recently at which there were representatives of the following technical organizations: Association of Dominion Land Surveyors, Canadian Geodetic Society, Canadian Mining Institute, Canadian Society of Technical Agriculturists, Ottawa Branch of the Engineering Institute of Canada, Entomological Society, Logan Club, Ontario Association of Architects, Royal Astronomical Society of Canada and the Society of Chemical Industry.

After discussing the relations of technical men to the Civil Service Association, it was unanimously decided that all technical men in government employ should continue to be members of the Civil Service Association, but that a separate technical organization should be formed to cooperate with that association and to care for the special interests of the professional men.

The Civil Service Association contains many thousands of clerks and others who are not technically trained and who do not always appreciate the additional remuneration that should ensue as a result of technical training. The professional men, by consolidating their interests, will be able to secure added prestige both within and without the Civil Service Association.

Letters to the Editor

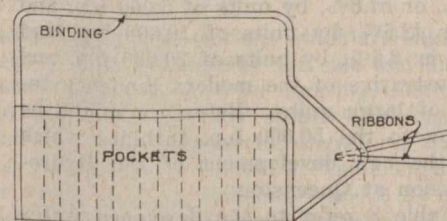
A HANDY INSTRUMENT CASE

Sir,—The instrument case shown in the accompanying sketch is a home-made affair which I have carried for some 25 years, and it is as good to-day as it was when it was made. It is very much more convenient than the cases generally made, and will outwear any of them, and with an occasional washing, always look neat and clean.

The material of which it is made, is chamois leather, cut to shape, and sewn up as shown in the sketch, with a compartment of sufficient width for each instrument. When not in use, it can be rolled up and tied by the ribbons attached. When rolled up, it occupies very little space in a drawer, or can be slipped into the pocket when required for a job away from the office. When working on the board, it is simply

laid out flat on the desk, and is much less in the way than the regular case.

From its shape and material it is less likely to be knocked off the table than is the



regular instrument case. Even if it is accidentally dropped, the instruments are not likely to be damaged, as they do not drop out even if the case is open. A similar accident with the other types of cases is, however, usually disastrous, as the instruments fall out and scatter all over the floor, generally with damage done to one or another of them.

A further advantage is that the rubbing of the instruments on the chamois leather when they are being taken out or put in, tends to keep them clean and bright.

JOHN S. WATTS.

New Glasgow, N.S., April 2nd, 1920.

BIG DEMAND FOR ENGINEERS?

Sir,—I was very much surprised to read in a local evening paper an address, headed "Big Demand for Engineers," by Brig.-Gen. C. H. Mitchell, dean of the Faculty of Applied Science and Engineering, University of Toronto. He was quoted as saying:—

"The call for men and means by which to carry out the work of the country, wherein applied science and engineering knowledge and ability are required, is both insistent and universal throughout the Dominion." Also: "It now appears that a special effort should be exerted to direct the proper type of students into these professions. Fear that various branches of the engineering profession may become overcrowded, need not be seriously considered."

Now it seems to me, that a man in the position occupied by the general, should make himself more conversant with the true facts of the case before committing himself