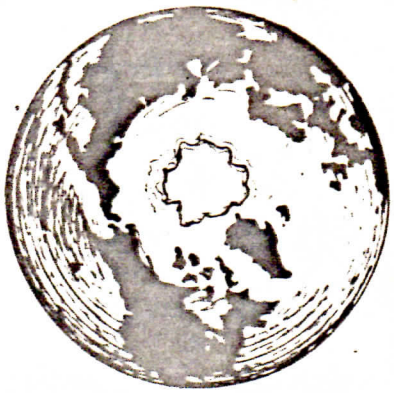
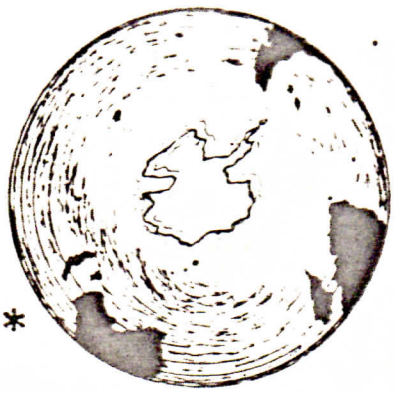


Letters from Readers*



BY WAY OF SYNOPSIS

CHARLES MACKLIN describes a method of setting small column bases on concrete.

E. L. HOWARD comments on factors influencing concrete strength.

ROBERT B. COLEMAN, JR., discusses the use of portland-slag cement to correct alkali-aggregate expansion.

I. E. MORRIS emphasizes that rational use of the Building Code makes possible the design of economical structures.

B. KELLAM describes investigations on the water-solubility of alkalies in portland cement.

RAYMOND C. REESE answers a reader's question on spacing of beam stirrups.

E. L. HOWARD believes that metal molds are superior to paper for test cylinders.

HOMER M. HADLEY concludes discussion on the merits of the plastic theory of design.

W. P. HIRSCHBERG questions omitting hooked ends on reinforcing bars.

Leveling Screws Simplify Setting Column Bases (LR 48-1)

In setting small steel columns, with base plates attached in the shop, the usual details call for two anchor bolts and the column is adjusted to elevation by steel shims. With only two anchor bolts it is also necessary to guy the column in an upright position. The accurate setting of anchor bolts is of vital importance and shimming is at best a trial and error operation.

To simplify this operation a double nut and long thread on the anchor bolts have been used with success. By using at least three bolts guying can be eliminated except on small footings where it may be necessary to prevent overturning of isolated footings.

Details of the column base assembly are shown in Fig. 1. The double nut is helpful in setting the bolts since the nuts may be tightened on a rigid template, thus keeping the bolts at right angles. It is recommended that the bolt pattern be kept square when four bolts are used to allow for turning the column 90° in case of shop errors or plan changes. Bolts should have a $\frac{3}{4}$-in. minimum diameter and nuts should have a free fit. The holes in the base plate should be at least $\frac{1}{4}$ in. larger than the bolt. Where variations in the setting of bolts are expected, the holes should be larger and special washers used to span the larger opening.

The sequence of setting the column is shown in Fig. 2: (1) set the top of the nut or

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