The water equivalent of accumulated snow on the ground at any given date is an important factor in relation to the water supply available to fill reservoirs, provide water for public usage, or irrigation, or to produce floods. In order to obtain data from which the available water

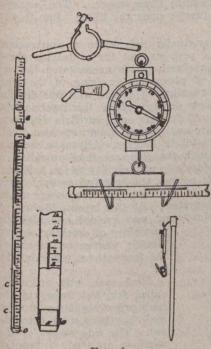


FIG. 4
MT. ROSE SNOW SAMPLER

supply of the coming spring may be estimated in advance, snow surveys have been extensively carried out, especially in the Rocky Mountain region, during the past few years.

Methods of the accurate measurement of snow in the mountains where it sometimes accumulates to a depth of 20 ft. or more have been developed, but no attempt will be made to treat those methods in detail. It is not a difficult matter, with proper apparatus, to keep a record, say, once a week, of the water equivalent of accumulated snow on the ground; and such a record, in conjunction with an ordinary record of rainfall and snow, will afford a valuable

check on the latter, and furnish useful information besides.

Among the earliest records of accumulated snow and its water equivalent kept in the United States were those kept by Charles A. Mixer, at Rumford Falls, Me., in 1901 to 1903, and by the writer at Utica, N.Y., in 1903 and 1904. Apparatus for snow sampling and weighing developed at Utica formed a pattern for subsequent improved apparatus of the United States Weather Bureau. Figs. 4 and 5 illustrate snow-sampling tubes, measuring staffs, and weighing scales

of the most improved type.

There is a popular opinion that 1 in. of rain is equivalent to 10 ins. of snow, and a method of estimating prenin the form of

cipitation in the form of snow, consisting of first measuring the snow and then dividing the depth by 10 ins., is sometimes used. This method is un-The water reliable. equivalent of freshly fallen snow varies to a considerable degree. It may range from 1 in. of water to 6 ins. of snow, for moist or dense snow, when the air temperature is around the freezing point, to 1 in. of water for 10 or 12 ins. of snow at lower temperature.

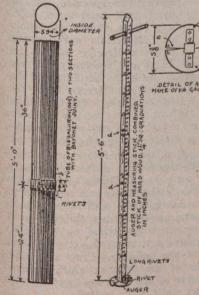


FIG 5
THE KADEL SNOW SAMPLER

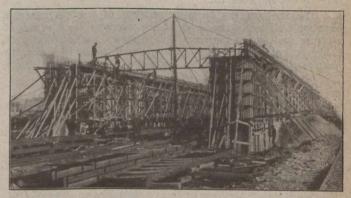
These rules do not apply to accumulated snow, the density of which nearly always increases as winter advances. Commonly, deep snow lying on the ground for some time will have a water equivalent of 1 in. for $2\frac{1}{2}$ to 4 ins. of snow.

REINFORCED CONCRETE BUILDING

For Canadian National Railways Coach Cleaning and Storage Yard, Halifax Ocean Terminals, Halifax, N.S.

By J. J. Macdonald Canadian National Railways, Moncton, N.B.

A S part of the program of work laid down and carried on in 1918 by the Canadian Government Railways (now the Canadian National Railways) at the Halifax Ocean Terminals for the transfer of the passenger traffic from the old North End station to the new terminal site, a permanent reinforced concrete building has been erected to provide shop facilities and to accommodate the plant and



COMPLETE CAR-CLEANING SHOPS, STORES AND ICE HOUSE

stores for the first unit of the coach cleaning and storage yards.

The layout of this yard and the location of the building is shown on the accompanying general plan. The yard is equipped with steam and compressed air connections, carwatering hydrants, car-gassing hydrants, vacuum cleaning outlets and battery-charging receptacles.

As indicated on the general plan, trucking platforms are provided between alternate tracks and along the east side of the building, which connect to the continuous end platform. The platforms are at approximately the same



CAR-CLEANING SHOP DURING CONSTRUCTION

level as the floor of the building, to which ample connection is provided by a series of double doors.

The building is 380 ft. long by 51 ft. wide. Beginning at the south end, a car cleaning shop occupies a length of 200 ft. This section is single story and is provided with care repair pits and accessories. The vacuum cleaning machine is also located in this shop.

The remainder of the building is of two-story construction and contains the service or plant room, offices and stores rooms with the different car departments, ice storage room and refrigerators.