to each member of the committee, for the collection of information relating to present and proposed laws concerning the licensing of engineers and architects. This matter is receiving active attention by large numbers of engineers as well as the legislatures of several states.

January 1st the Public Service Commission for the First District of New York was forced by the adoption of a segregated budget by the Board of Estimate and Apportionment of New York City, to discharge without notice, 339 engineers and assistants engaged upon subway construction. January 14th, at the request of the acting chairman of the Commission and of several engineering societies and individuals, Engineering Council held a hearing. The findings were printed and sent to the city authorities and engineers interested to the Governor, to 100 civic organizations and the daily papers and engineering periodicals. Partly as a result of these actions of Council, most of the engineers were reinstated February 1st, and some of them were paid for the month of January.

Affiliation With Canadian Institute

To maintain some communication, although informal, with groups of engineers throughout the country, Engineering Council has approximately thirty local correspondents in as many centres of engineering population. Canadian engineers have repeatedly expressed desire for friendly relationships with Engineering Council, and at its meeting February 20th, Council appointed members of joint committees on International Affiliation of Engineers, to which it is expected the Engineering Institute of Canada, also, will appoint a few members.

Council is financed by its member societies. Each year each Founder Society has appropriated \$4,000, for the purpose of Engineering Council; that is \$800 per representa-The American Society for Testing Materials is contive. Council's activities are now tributing at the same rate. limited chiefly by the financial resources at its command. New methods of financing are necessary in order that the services which engineers of their joint organizations seem to be desiring may be carried on and may be supported by Of this more may be heard in due general contributions. course through the societies. Time limitation prevents mention of many activities of Council, but there is one, which promises to be its most important, which deserves attention.

Office at Nation's Capital

From the beginning of its existence Engineering Council recognized the desirability of establishing at the national capital an office to represent the engineering profession. Ways and means for accomplishing this purpose did not appear until the end of 1918, when a National Service Committee of nine members was created. The members are distributed among several societies and located in many parts of the country, but the chairman is the Washington representative of Engineering Council and in charge of an office recently opened in the McLachlen Building at 10th and G Streets.

The National Service Committee is to deal with matters of national legislation and work of the Federal departments referred to it by Engineering Council. It will also maintain an information bureau for engineers to answer inquiries regarding the reports and activities of the departments and matters before Congress. Its most important item hitherto, has been the discussion of a National Department of Public Works before Senate committees at their requests. Preparations are being made for pursuing this subject before the 66th Congress after consideration by a conference of representatives of engineering societies, preliminaries for which are now in hand.

Thus it appears that out of the somewhat chaotic condition which had come about in engineering organization in the pursuit of the constantly differentiating specialties of technical practice, there are growing up strong organizations for joint activities in those interests of the profession which demand federation and general support. Although from necessity the headquarters are located in New York, the activities are reaching throughout the country and seeking to be of use to engineers everywhere.

THE MENACE OF THE ICE GORGE

BY S. R. RUSSELL

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DAMAGE to the extent of millions of dollars is caused every year on this continent by ice gorges. Bridges, docks and other structures along the shore are carried away or destroyed by the sheer force of the ice. Probably the greatest damage, however, results from the flooding of the surrounding country by the water which is dammed up by the ice jamming against bridge piers or other artificial obstructions. Sometimes at narrow parts of the stream where the current is sluggish, the water freezes right to the bottom. When the thaw comes the ice at this point does not thaw quickly enough, so that when the upper ice gives way it rushes down and piles up at the solid section, thus forming a barrier or dam.

No matter how the trouble occurs, if action is taken at the right time most of the damage caused by ice gorges can be prevented by the use of dynamite.

Floods due to ice gorges occur usually about the same time each year in various localities. gorge also is generally formed at the same place in the river or stream. For this therefore. reason. preparations can be made and work started in ample time before the break actually oc-When the curs. of the cold "back spell is broken" time elapses some



SPUDDING HOLE IN ICE

some time elapses before the ice begins to melt.

It is well to begin at the downstream end, considerably below the probable location of the gorge, and work upstream some distance above it, depending on the width and size of the stream. The ice should be practically honeycombed or cracked up below and above the danger point, so that when the "rush" comes it will give or move easily without jamming or causing damage.

A force of men should be put to work digging holes from 6 to 12 inches in diameter clear through the ice with ice spuds or picks, beginning at the downstream end and several hundred feet below the probable location of the gorge. These holes should be about 30 feet apart across the stream, and from 60 to 75 feet between rows. It is advisable to

shoot one row at a time at first, then the execution of the charge can be noted and determined whether or not it is advisable to decrease the charge, or space the holes further a p a r t. For the initial charges from five to ten 1¼-in. x



8-in. cartridges of dynamite, 40% strength, should be tied into a bundle with a stout cord, and each bundle primed with an electric blasting cap. One bundle of dynamite should be dropped in each hole so that it will be suspended in the water under the ice—even two or three feet under the ice is best. A stick of wood laid across the hole on the ice surface to which the other end of the string is attached will prevent the dynamite from being carried away and lost.

The electric blasting cap wires should be connected in series and fired by means of an electric blasting machine.