removed from the dry dock at that point, but the whole was towed over to the site of the landing pier, a distance of 40 miles, where the dry dock was sunk, the crib floated into position and filled with stone. In the case of the second, the crib was removed from the dry dock at Point Du Chene and towed across.

Another tower, 105 ft. in height, was constructed on the shore, and a 2¼-inch Lidgerwood cable strung between them. The skips, filled with rock, were brought by scow to the landing pier where they were lifted and conveyed along the rock-fill by cable. A steel scow 125 ft. long, 35 ft. wide and 12 ft. deep, constructed by the company at Point Du Chene, was employed in this work.

The large facing stone is also produced by the quarry. It is loaded on cars by means of a cableway 600 ft. in length and of 15 tons capacity, and a 25-ton locomotive crane. Cyclone drills are used in blasting operations.

Outer 90-foot Tower of 1,505-foot Cableway at Carleton Point. Tower Resting on Wooden Cribs and Rock-fill.

For the construction of the large reinforced concrete cribs which will constitute the walls of the landing pier, a floating dry dock has been built at Point Du Chene. It is 125 ft. long, 47 ft. wide and 12 ft. in height, and is equipped with valves for flooding purposes, and with an opening end.

The cribs themselves will have reinforced concrete walls and solid wooden bottoms. They vary in length from 102 to 113 ft. They are to be 35 ft. wide and 32 ft. high. It is the intention to construct them in the dry dock to about half their height, whereupon they will be removed and finished. They will then be towed across to Carleton Point and sunk by means of valves operated from the top of the cribs. Their construction will be proceeded with during the coming summer, simultaneously with the completion of the rock-fill and facing of landing pier and breakwater.

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WASTE OF NATURAL GAS.*

By Dr. F. D. Adams,
Chairman, Committee on Minerals, Commission of Conservation.

NATURAL gas is the most perfect fuel with which we are furnished by nature. It is clean, can be readily piped for long distances, and has a very high heating power. Consequently, when it is found in large quantities, it speedily supplants all other kinds of fuel. It is a material, however, which has been produced very slowly, and the great volumes of it which are found stored in certain favorable situations within the crust of the earth represent the result of a slow process of accumulation extending over an enormous lapse of time.

The gas, however, is often under great pressure in the earth's crust, and when tapped by bore holes frequently escapes in such enormous volumes that persons unacquainted with the conditions of its occurrence are led to believe that the supply is so great as to be practically inexhaustible, or that at any rate the exhaustion of the field is a contingency so far removed in the future that its discussion is a matter of purely academic interest.

The greatest supplies of natural gas hitherto discovered are those of the United States, and these gas fields are those which are nearest in position to the Canadian fields. The gas fields of the United States have now been operated for some thirty years, and the experience drawn from them is directly applicable to the problems presented by the gas fields of Canada, which are now in a relatively early stage of their development.

The Experience in the United States.—It is that within a few years after its discovery the output of gas in one field after another in which the supply was supposed to be inexhaustible is found to be gradually lessening, and in some of the fields where natural gas was at first so abundant that it was the fuel almost exclusively employed in the great factories of the district as well as for private use, the supply is now practically exhausted and it has been necessary to return to coal.

In fields where the supplies have not as yet been exhausted the decline in pressure, indicating approaching exhaustion, has been marked. One of the most rapid declines is that seen in the fields of northern Indiana, where the pressure dropped from 400 pound in 1886 to 50 pounds in 1902. Thus those fields were practically exhausted within 15 years. McDowell states that three times as much gas was wasted in those fields as was used.

Other instances of quick decline are found in Kansas and Oklahoma. In the latter state the rock pressure

* From a report on "Mineral Resources and the Problem of their Conservation," Annual Meeting, Commission of Conservation, January, 1915.