Please read and send in as full a discussion as possible at earliest date.

The Canadian Society of Civil Engineers.

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ADVANCE PROOF -- (Subject to revision).

N.B.—This Society, as a body, does not hold itself responsible for the statements and opinions advanced in any of its publications.

STEAM TURBINE POWER AND TRANSMISSION PLANT, OF THE MOCTEZUMA COPPER COMPANY, AT NACOZARI, SONORA, MEXICO.

By JOHN LANGTON, M. Can. Soc. C. E., and CHARLES LEGRAND

(To be read before the Electrical Section, March 5, 1908.)

This power plant was erected to provide for a large extension in the operations of The Moctezuma Copper Company, both at its works, situated at Nacozari, and at its mines, six miles distant. The plant was planned with the aim of providing comprehensively, not merely for present needs, but for all probable contingencies, and for possible further extensions.

The duty on crude petroleum into Mexico being prohibitive, and the wood supply in the neighborhood being inadequate to furnish fuel for a steam plant of the requisite capacity, coal is the only available fuel; and bituminous coal from northern New Mexico is the nearest and cheapest to be had. Since this coal has to be hauled 750 miles by rail to Nacozari, its excessive cost required that the plant should be planned for the greatest fuel economy consistent with that simplicity in operation which is essential in a plant which must run continuously in an isolated situation, such as Nacozari, where skilled labor is frequently scarce. The cost of fuel dictated the addition of economizers to the boilers, and also superheaters to give a moderate degree of superheat.

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