From the Midland he transferred to the Georgian Bay Branch of the Canadian Pacific, but in 1878 the "call of the wild" lost its hold and he allowed himself to be appointed Principal of the School of Practical Science and Professor of Engineering, and for thirty years continuously he has devoted his energies to academic work.

In numbers, the growth of the School during that period, has been phenomenal. From a staff of two it has grown to a staff of over fifty, and from a school of a dozen it has grown to a college of over seven hundred. New departments have been added, new methods have been adopted, the field of an engineering college has enlarged, the demand for and the requirments of technically trained men has during that period vastly increased, yet John Galbraith has kept abreast of every forward move. His council has been followed in the opening of new departments—and his wisdom is seen in the success.

He does not look for reward or commendation, yet both are his. The devotion of the graduates is a tribute to his strong personality and manly character, their confidence and success the result of a good college training attributable alike to sound pedagogical methods and thorough professional knowledge on the part of the Dean.

Although Mr. Galbraith has refused repeatedly to act in a professional capacity while associated with college work, yet he has occupied positions of honor and responsibility in various organizations. Ths year he was elected President of the Canadian Society of Civil Engineers, and previous to this had been Vice-President of the Engineering Section of the British Association for the Advancement of Science; Vice-President of the Engineering Section of the American Association for the Advancement of Science. It would not surprise one to learn that he values these honors more highly than the degree of LL.D., conferred on him by both Toronto and Queen's University.

The announcement of his selection as one of the Commissioners was received with much satisfaction, both by the engineering profession and the public, and his fellow-commissioners will be among the first to acknowledge the large part he did in preparing the report.

The selection of a well-balanced commission cannot be an easy task, but when the composition of the Quebec Bridge Commission was announced one could not help remarking that, theoretically at least, this was a model Commission.

One member had made his mark as a successful construction engineer, another had spent thirty years discussing the theory of the strength of material and the composition of materials of construction, the third member had spent about equal time as an engineer in charge of construction, and as a college professor.

John G. G. Kerry is an Honor Graduate and Gold Medallist of McGill University, graduating in civil engineering in 1886.

From 1886 to 1893, except during 1889, he was engaged on railway construction work. First with the Canadian Pacific from their Montreal office, and afterwards on location and construction of the Algoma Branch.

During parts of 1888 and 1889 he was attached to the engineering staff of the Montreal Harbor Board as assistant engineer. In 1890 he went to the Southern States and for three years was Resident Engineer on construction on heavy work in Virginia and Carolina.

From 1893 to 1907 Mr. Kerry was connected with the teaching staff of McGill College, first as lecturer in surveying and afterwards as Associate Professor in Surveying, and lecturer in Railroad Engineering.

McGill College does not require that their professors give all their time to academic work, and during this period Mr. Kerry found time to act, in a consulting capacity, for several corporations and individuals, more particularly the East Liverpool Bridge Company, and the Grand Trunk Railway, working generally under directions from Mr. F. H. McGuigan, fourth vice-president. In 1907 became a member of new engineering firm of Smith, Kerry and Chase.

His wide and varied experience as a construction engineer, his high academic standing, together with the orderly and logical method of thought and expression in which he trained himself as a college professor, has made Mr. Kerry an invaluable member of the Commission.

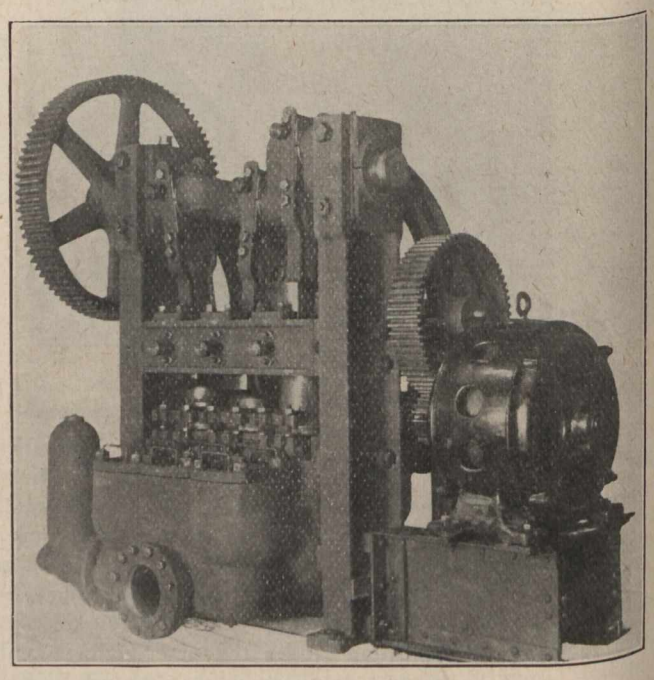
A UNIQUE ELECTRIC PUMP.

By Frank C. Perkins.

The accompanying illustration shows the Aldrich motor-driven vertical triplex pump, which has been designed and built at the Allentown Rolling Mills. The pump was designed for the capacities up to 500 gallons, and for lifts up to 300 feet.

It will be noted that the crank shaft is maintained in a rigid manner by a journal which is entirely separated from the vertical standards, and held in position by key bolts, taking the work in shear. By means of a wedge underneath the journal the pump can be adjusted while in motion. A similar device also permits the complete regulation of the bronze adjustable bearings with which the connecting rods are fitted under the same conditions. The working barrels and guides are supported with a parabolic brace, the vertical standards being entirely separate.

It is claimed that the fundamental condition of economy in pumping is a slow velocity of water. If the valve and water areas are small, causing a high velociety, the loss is great, for the reason that the friction increases as the square of the velocity. The Aldrich triplex pump, it is held, has been designed to meet these conditions, the valve areas being



built so that the speed of the water, as it passes through the pump, is about three feet per second. It is maintained that there is approximately 13 per cent. variation in volume of water passing through a pump; consequently, the suction and discharge pipes of these pumps are fitted with chambers which equalize the flow to a uniform speed.

It will be seen that the suction valve is located on one side of the working barrel, while the discharge valve is on the other. These valves are so constructed that they are accessible through covers held in position by heavy stud bolts. The interior of the working barrel is of circular of spherical section.

The vibration in the gearing is reduced to a minimum and the life of the pump lengthened, the ring oil as bearings are supported by a heavy bracket on the vertical standards, giving them a substantial support on the pinion shaft.

The induction motors, shown in the illustration, used to drive this pump where alternating current is available, is of Allis-Chalmers construction. Electric pumps are now being utilized very extensively for auxiliary service, where steam pumps were heretofore almost universally employed.