

THE "COCHRANE" SYSTEM OF ROLLS.

The Business Mens' Association of Toledo made a proposition to purchase an interest in the American Patent of Mr. W. F. Cochrane for his system, and appointed a Committee to go to Peterboro' for the purpose of reporting on same. The following is the Report of the Committee so appointed :

REPORT OF THE COMMITTEE SENT FROM TOLEDO TO PETERBORO' TO INVESTIGATE THE MERITS OF THE COCHRANE MILLS.

TOLEDO, OHIO, November 5th, 1887.

To the Business Mens' Association of the City of Toledo.

GENTLEMEN,

In compliance with your appointment and instructions, the undersigned as a Committee appointed to investigate the recently invented grist mill of W. F. Cochrane, now in operation at Peterboro', Ontario, have to report :

That on the evening of the 4th November, the whole Committee, with the exception of Mr. Taylor, who sent in his place Mr. J. A. Stetzel, the experienced superintendent of Taylor's system of mills, started for Peterboro'. On the way, the Committee failed to make connection at Hamilton, Canada, with the train for Toronto, and were delayed at the former place about half a day. Mr. Cochrane, who was with us, immediately prepared to take the Committee to Dundas, a manufacturing Village five miles from Hamilton, the head-quarters for the Canada syndicate for the manufacture of his Mills. He took us through the extensive machine works of Bertram & Sons, who are using the great force of their works in manufacturing the machinery which is to be used in manufacturing the new Mills.

The machinery will be completed and the factory in working order inside of ninety days. In the factory of the Canada Company, which we found close by, we were shown the first mill produced by Mr. Cochrane under his patents. It is not connected with power, but in all its points is complete and kept there as proof of the claims of Mr. Cochrane to the discoveries and improvements involved in it. We found the greatest enthusiasm among the machine men of that industrious center in favor of both Mr. Cochrane and his invention.

The manufacturing establishment of the Canada Company occupies about four acres of ground, with excellent water power, and railroad facilities.

The Committee then proceeded to Peterboro', and were escorted to the Mills of Meldrum, Davidson & Co., in which is placed the Cochrane Mills. The Committee found Mr. Meldrum an educated and practical miller, owning a large Mill, propelled by water power. Mr. Meldrum informed the Committee that two years ago they completed his Mill with a set of seven double William & J. G. Greey Roller Mills, averaging 9 x 24 inch rolls, the then latest and most approved Roller Mills in Canada. The average capacity of the Greey Mills was 110 bbls. of flour in twenty-four hours, using the full head of water. When they became acquainted with the Cochrane system, they consented under strong pressure and a bond of indemnity against loss, to allow the Greey Mills to be taken out and the Cochrane Mill to be put in. The Greey Mills your Committee found lying in the basement of these Mills, and now offered for sale at 50 per cent. of the cost price. We were by Mr. Meldrum and his associates then shown the Cochrane Mill. It consists of seven double sets of rolls, average 9 x 24 exact duplicates in size of the rolls they displaced.

The rolls are all contained in a single frame or girder, and driven by three* pulleys at the finishing end and one belt of six and three-quarter inches in width. Two shafts pass through the front (hollow) rolls from end to end, and the front rolls in turn by gears and clutches propel the inside rolls. This single belt drives the two pulleys, which drive the entire machine of twenty-eight rolls. The Mill was in operation, grinding Canadian fall wheat. The Mill has been in operation for four months stopping only on Sundays. But seventy per cent. of the water power required to operate the Greey Mills in making 110 bbls. of flour in twenty-four hours is now used with the Cochrane Mill, which now averages 150 bbls. of flour in twenty-four hours. Mr. Meldrum stated that the Mill had never been stopped a single moment from the time the water was first turned on, for any defect, weakness or faulty construction up to the time we visited it, save the time when improperly corrugated rolls were replaced by properly corrugated ones, the Birmingham foundry having given

*This is an error ; there are but two pulleys each of thirty inch, and an "Idler."