

Some Heavy Machine Tools Made in Canada

The Railway Shops and Some Large Manufacturing Plants Have Been Responsible for the Building of Some Large and Heavy Tools by Canadian Builders. Illustrations and Descriptions of Some of These.

In the past two or three years there have been quite a number of large and heavy tools made and sold in Canada. The use of high speed cutting steels have been responsible for the demand for heavily built tools. The equipping of several large manufacturing plants and railroad shops have been responsible for the building of large tools. The Canadian Westinghouse Co. have had several large tools made in Canada, notably a large planer by the John Bertram & Sons Co.,

months, are using some big tools made in Canada by the London Machine Tool Co. In the Toronto shops of the Grand Trunk Railway, two very heavy rail planers, built specially by the John Bertram & Sons Co., are doing splendid work in removing metal economically. The Intercolonial Railway and the Grand Trunk Pacific are now making similar demands on the Canadian tool builders.

This is all evidence of the present trend in

once with some of the best tool builders in the United States, and in that way met the requirements of the situation.

The result has been that during the past couple of years, this firm have placed many new tools on the market.

EIGHT FOOT BORING MILL.

In Fig. 1 is shown an 8-foot boring mill, several of which have been made by the London Machine Tool Co., two of them now operating in Hamilton in the Canadian Westinghouse shops and in the Berlin Machine Works. Others have been sold for railroad shops. This is a high power tool, heavily and rigidly constructed, as can be readily seen from the illustration.

The drive is by 25 h.p. variable speed Westinghouse motor direct connected through gear box to the machine. Speed variation in the motor is 3 to 1, and in the gear box 3 to 1, making 9 speed changes possible. The cross rail is elevated and the heads moved by means of a 5 h.p. Westinghouse variable speed motor. The gearing throughout is all steel.

FORTY-TWO INCH EXTRA HEAVY LATHE.

This lathe, shown in Fig. 2, was specially designed to stand up to the severest strains to which it might be subjected by high speed

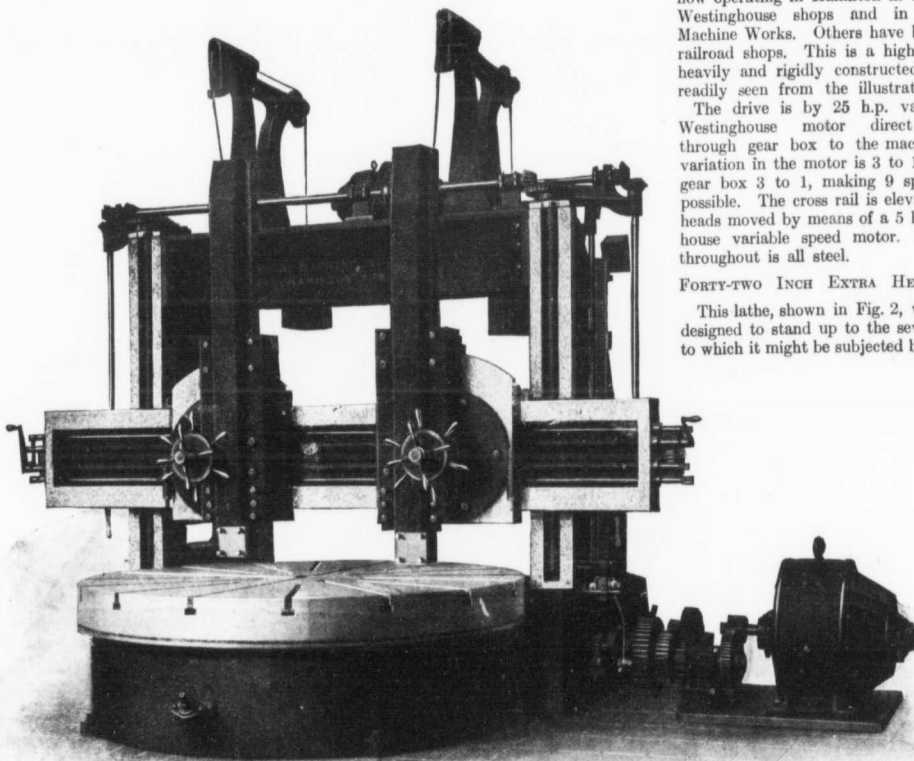


Fig. 1—Eight Foot London Machine Tool Boring Mill.

and a large boring mill by the London Machine Tool Co. This planer was described in the mechanical papers some months ago; an illustration of the boring mill appears in this article. The Grand Trunk Railway recently had the London Machine Tool Co. build a large and heavy wheel lathe for the Stratford shops, which lathe made a record of 13 pairs of driving wheels per day of 10 hours. Now the Berlin Machine Works, Hamilton, which plant has now been in operation some

machine tool practice and of the industrial growth of Canada which makes necessary the installation of so many heavy tools. It is also a compliment to Canadian tool makers that these orders are coming to them.

The accompanying illustrations are of three of these newly designed heavy tools built by the London Machine Tool Co. At the time the demand came for these tools the London Machine Tool Co. secured the services of a designer who had had wide experi-

cutting; and it also has very heavy driving power.

It is a triple geared lathe equipped with instantaneous speed changes. The swing over the bed is 42 inches, and over the carriage 32 inches. The back-gear ratio is 8 to 1; and the triple-gear ratio is 45 to 1. The bearing surfaces are liberal: front bearing is 6½ inches in diameter by 11 inches long; the rear bearing is 6 inches in diameter by