

IMPROVED PLANING MACHINE.

We illustrate a special planing machine for planing heavy pedestals, made by Rushworth & Co., of Sowerby Bridge. This machine, as will be readily seen from the engraving, which is from *Engineering*, is of exceptional strength and rigidity for the size of work which can be passed through it. It is designed to plane objects up to 7 ft. in length and 4 ft. 6 in. square. The bed and uprights all fit level on the foundation; the bed itself is of double box section with strong box bars, and the table, which is 4 ft. wide, has T slots

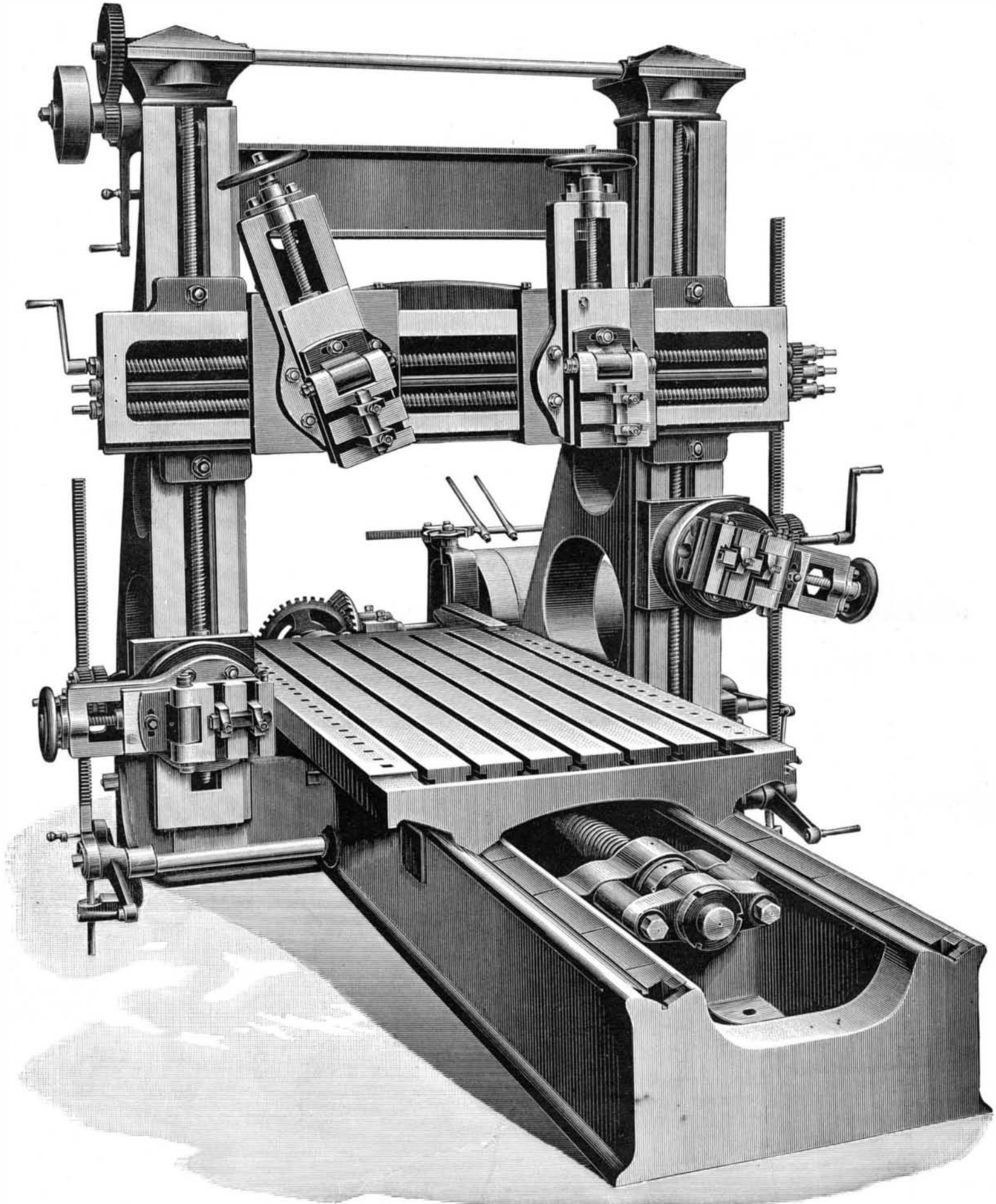
worked by steel screws and a steel shaft, and self-acting in horizontal, vertical, and angular feed. The vertical range is 15 in., which is of great importance for this class of tool, for planing inside a pedestal or a valve chest. The two tool boxes on the upright stands project the same distance from the cross slide, so that all the four tools, when in use, finish the cut together. These tool boxes are balanced by weights inside each upright, and are self-acting vertically. The feed motion is very simple and durable, and is operated from a wrought-iron rack on each side; all the tool boxes

Ice in the Sick Room.

A correspondent of the *National Druggist* makes the following seasonable suggestion:

"The writer's son suffered with typhoid fever during the heated term of last summer, when the temperature of the room often rose to 90° or 95°, and the patient's temperature ran up to 105° F. and over.

"A number of tubs were placed in the room, and kept filled with ice, and the doors kept closed. The temperature of the room sank to 80° or less, an average of 12° or 15° below the temperature of the other rooms

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planed out of the solid with slot holes on each outer edge. It is driven or worked by a steel screw $4\frac{1}{2}$ in. in diameter running in gun-metal bearings at each end, and engaging with a gun-metal nut 2 ft. long, made in two parts, so that the slightest wear in the thread can be taken up.

At each end of the screw there are double-thrust bearings; that at one end consists of a tail bar with an adjustable steel pin, and that at the other end of a bridge, with gun-metal washers 8 in. in diameter. By this arrangement the bevel gear on the screw is always kept in the same position. The bevel gear is steel, and is driven by pulleys of 30 in. and 24 in. diameter for the cutting and return strokes respectively. The machine has two strong tool boxes on the cross slide

have a variable feed, self-acting, from one-sixteenth to seven-sixteenths, a range of feed which cannot be got in most planing machines. The catch-box wheels and the wheels on the screws and the shaft on the cross slide are all cut from wrought iron, and the feed wheels in the tool boxes are of gun metal. The loose disks or adjusting strips to the slides are also of wrought iron, so that there is no danger of their breaking, however tight they are nipped when doing the heaviest of work. The machine can be stopped or started on either side, and the gear and pulleys being at the extreme end, both sides of the machine are left entirely clear for the workman to stand in front of the tool boxes, etc. The bed is fitted with lubricators. The approximate weight of the machine is 12 tons.

in the house; and the cooler atmosphere not only added to the comfort of the patient, but aided in keeping down the body temperature, and materially contributed to a final recovery."

The Next Louisville Exposition.

For three years past, commencing with 1883, the exhibitions held at Louisville, Ky., have been brilliantly successful, alike in the attendance and in the variety and excellence of their display of works of art, industry, and agriculture. This year the exhibition opens Aug. 28 and closes Oct. 23, and its managers propose to make the show contribute materially to the attractions which Louisville always presents to visitors at that season.