New Inventions.

New Mill Stone Dress.

Mr. W. P. Colemen, of New Orleans, La., has lately patented a mill stone dress, the furrows of which are arranged in a peculiar way, whereby the grain is retained between the grinding surfaces of the stones a requisite length of time, and the surfaces of stones at all times supplied with a proper quantity of grain. The surfaces of the two stones are thus prevented from coming in contact with each other, a much larger amount of grain can be ground, while the quality of the flour will be improved. It is an important and valuable invention.

New Mode of Bending Wood.

Messrs. E., A., & C. Kilburn, of Burlington, Vt., have lately patented a method of bending ship's knees, and which consists in forcing the stuff endwise into a close sided mold, having the desired curved form longitudinal, and having its interval transverse section only just of the dimensions of the transverse section of the piece of wood. The wood is thus confined laterally, in all directions, during the bending process, and is thereby prevented from breaking, splitting, or splintering.

The Great Bridge at Montreal.

This immense structure forming part of the Great Trunk Railroad of Canada, has been pushed forward with considerable energy this summer by A. M. Ross, the resident engineer; but even with the greatest efforts, it is believed that it cannot be completed within two years. And when its gigantic proportions are taken into consideration this will excite no wonder. The mason work alone will amount to 28,000,000 cubic feet, and the iron tubing will weigh 11,000 tuns. When completed it will be the greatest bridge in the world.

New Marble Sawing Machine.

Our engraving illustrates a novel machine for sawing marble blocks, by C. A. Schultz, of Chicago, Ill., which is now on exhibition and in operation at the American Institute Fair, Crystal Palace, N. Y. It is the only operating machine of the kind exhibited.

The principal feature of novelty consists in the employment of endless saws, A, which are strained around the pulleys, B, like endless belts. The pulleys are made of such a diameter that the saw blades will not bend in passing around them, but simply spring, so that no injury to the saws takes place, no matter how rapidly the pulleys move.

The pulleys and saws are carried in a frame, C C′, which has a vertical movement within the main frame of the machine, D. Motion is given to the pulleys, B, and saws, A, by means of power applied to shaft E, which causes the vertical shaft, F, to rotate. G is a pinion on shaft F, which drives the pulley pinions, B′. Pinion G revolves with shaft, F, and also rises and falls upon it.

In order to introduce the block of marble the frame, C, with the saws, A, pulleys, B, pinions, B′ and G, are raised vertically by turning the crank, H. This operates shaft, I, and winds up the lifting cords, J, which are attached to the four corners of frame C. The block of marble having been placed in position, frame C is allowed to descend, and the saws are brought upon the top of the block of marble. The weight of frame C then serves to give the required downward feed to the saws.

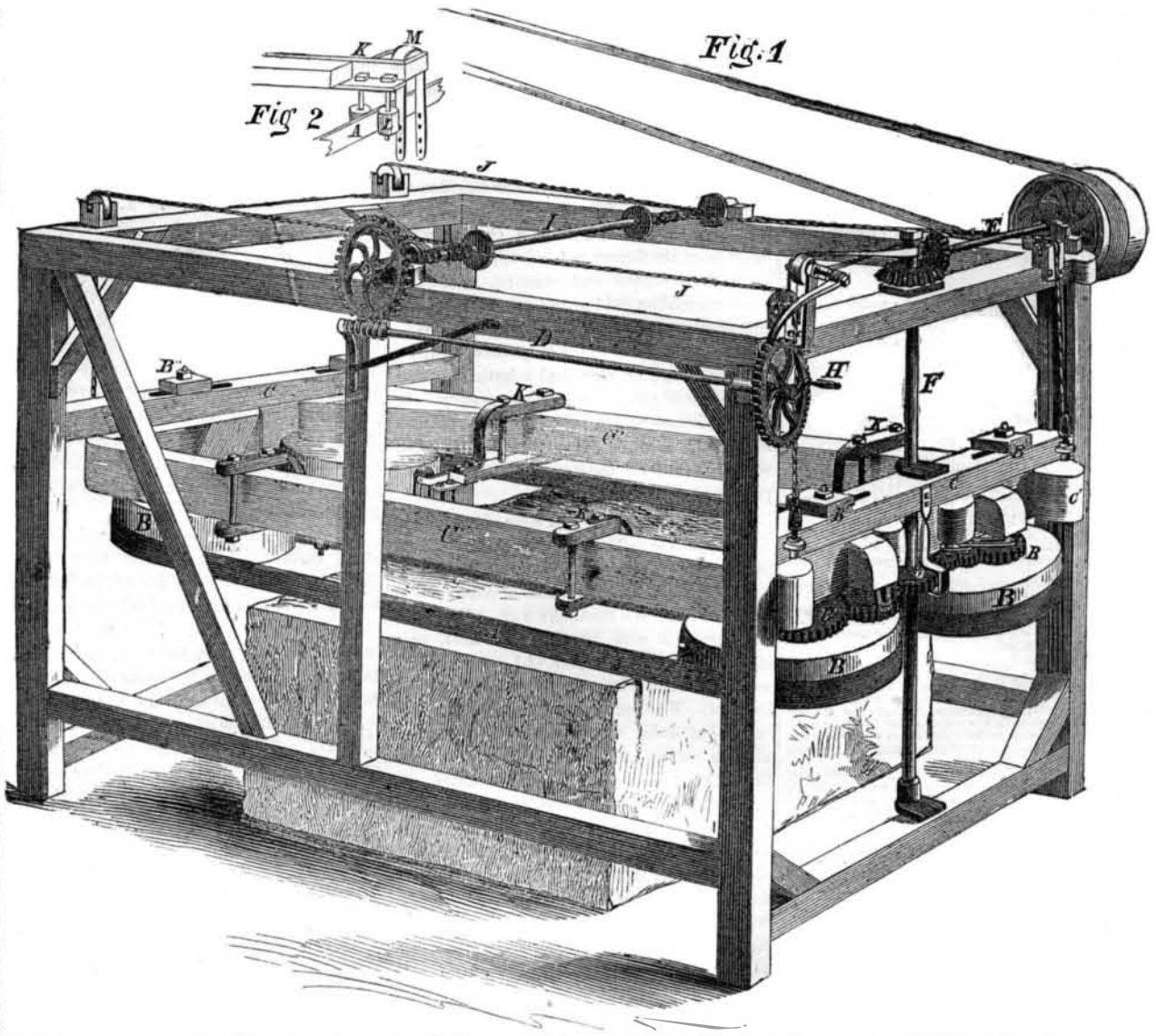
The saws are readily set to cut at an angle, and thus produce tapering blocks for monuments, by altering the position of the frames, C. Said frames are so arranged as to be near together, or moved apart, at pleasure, by means of set screws, B″. The frame, C′, is divided into two parts, each portion carrying a saw, and being separately adjustable. Adjustable guides, K, are also attached to frame C′, for the purpose of guiding the saw. Guides K are furnished with friction rollers, L M, between and beneath which the saw passes (see fig. 2.) Each saw makes two cuts, which are perfectly true and smooth.

The saws are made of common hoop iron, and therefore cost but very little. We are told that this machine cuts about three times faster than the common marble sawing apparatuses. The endless saws may be driven at a high speed, their motion is always steady, and there is no appreciable wear on their surface. No difficulty is experienced in feeding in the sand.

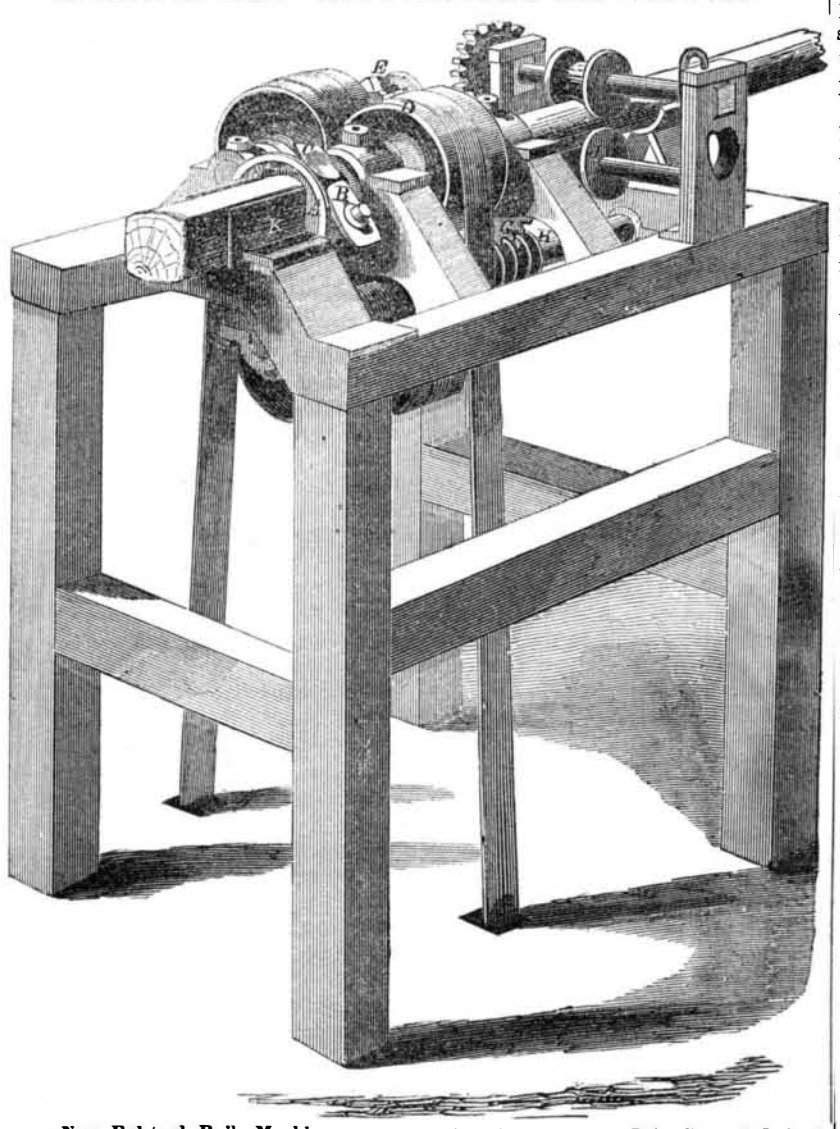
The machine at the Palace is of full size, and operates with entire success. Further information can be had at the Palace or by addressing Fulton, Perkins & Co., box 698, Chicago, Ill. Patented March 18, 1856.

NEW MACHINE FOR SAWING MARBLE.

Fig. 1



MACHINE FOR TURNING BEDSTEAD RAILS.



New Bedstead Rail Machine.

Our engraving illustrates a machine for turning Bedstead Rails, now on exhibition at the American Institute Fair, Crystal Palace N. Y. It is the invention of T. R. Bailey Lockport, N. Y. Patented July 25th, 1854.

This machine is intended for the turning of plain round rails for the cheaper kind of bedsteads, and also for all kinds of plain round turning, such as posts, window curtain rollers, pickets, rake bows, &c.

In our cut, A is a revolving mandrel, made hollow. B C the cutters. The rough rail is turned by being passed through the mandrel. At the entrance or mouth of the mandrel there is a stationary guide plate, K, through which the stuff passes. The rail is fed in by hand for a short distance, or until its forward end comes between the rollers, I J; these rollers then seize the stuff and carry it through, without assistance from the operator. E is another revolving hollow mandrel for cutting tenons on the ends of the rails, for screw bedsteads. The tenon produced is of the usual shape. Both of the mandrels are driven by one belt D. The machine is strong, durable, very simple, easily managed, and not liable to get out of order. It works with great rapidity. being capable of turning out 600 to 800 bedstead rails per day of ten hours. Price $150. For further information apply at the Palace, or address the inventor as above.

The propeller *Falcon* was burned at Chicago on the 17th inst.