

“Improved Machine for Drilling Stone”

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SOUTHARD & HOBSON'S STONE DRILLING MACHINE.

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The object of the machine represented in the engraving is to facilitate the drilling and quarrying of stone, the splitting of blocks, and the blasting of rocks. It is, in fact, the ordinary stone drill, improved and extended in arrangement and management. A light frame holds a series of drills of any number required, the drills being so arranged and connected that they may be instantly removed from the frame for transportation from place to place. The drills are all raised by one complete revolution of the lifting shaft, A, but only one at a time, so that the power whether manual, horse, steam, or water, has the weight of but one to lift at once. The drills are turned as well as raised by the curved arms, B, which, impinging on the convex under side of the disks, C, give the drills a partial rotary motion as they are lifted, similar to that by the hand in the single ordinary stone drill. The drills can be set at any required distance, one from the other, by means of adjustable eyes, set in the parallel or slotted bars at the top and near the bottom of the frame. As the drills work down into stone, the shaft, A, is lowered by the cog wheels, D, on a shaft passing across the frame, working in the sliding racks, E, to which the lifting shaft boxes are attached, and is held in position by the catch lever, F, and curved rack, G.

“The holes are moistened by the water cans, H, which have their spouts adjusted so that the water strikes the sides of the drills and runs down into the holes. The curved lifting arms are adjusted by set screws working in longitudinal grooves in the shaft on which they are fixed, and the water cans are secured at any distance apart by bolts passing through a slot in the cross bar on which they stand. The screws, I, through the feet of the frame are for leveling the frame when standing on rough or uneven surfaces.

“The machine is portable, durable, and cheap. The inventor says that each drill will bore an inch a minute in very hard stone, working by man power at ordinary speed, and make a much smoother hole than can be made by hand. It is the subject of patents by A. M. Southard and W. J. Hobson, dated Sept. 3, 1867, and April 28, 1868.

“All orders for machines and letters for further information should be addressed to Southard & Hobson, care of the Holske Machine Co., No. 528 Water street, New York city.”