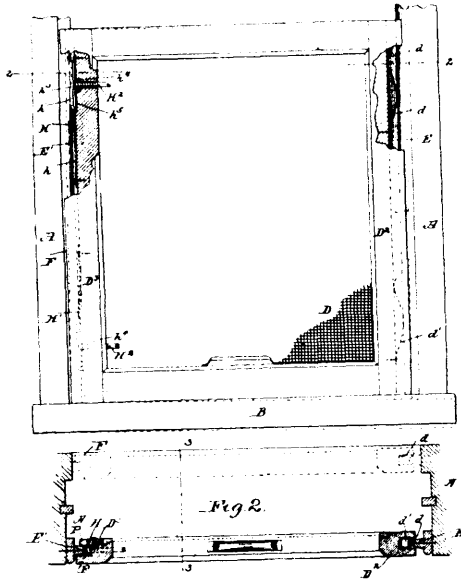


edge of the frame, and a flange projecting from one edge of the frame beyond the plane of the justifying devices, substantially as



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described. 7th. In a screen, the combination with a frame having one of its side mouldings grooved, of spring abutments located with in the groove, a fixed bead fitted within the groove against which the abutments rest whereby the frame can be moved edge-wise, a bead at the opposite edge of the frame, positively adjustable independent justifying devices opposite the spring abutments and a single flange on the edge of the frame opposite the grooved edge of a width greater than the extent of edge movement allowed the frame, substantially as described. 8th. In a screen, the combination with an edgewise movable frame, of positively adjustable independent adjusting devices on the edge of the frame and a flange on the frame projecting beyond the adjusting devices of a width greater than the edgewise movable distance of the frame, substantially as described. 9th. In a screen, the combination with an edgewise movable frame, of independent screen adjusting shoes at the edge of the frame, and screws resting against said shoes and engaging the frames for moving the shoes outward from the frame, substantially as described. 10th. The combination with an edgewise movable frame of a justifying shoe comprising an elongated transversely curved bead engaging portion, rounded and portions, and means on the frame for adjusting the shoe outwardly, substantially as described. 11th. The combination with an edgewise movable screen frame of a justifying shoe consisting of a concave bead engaging portion and an extended securing portion, and adjusting means on the frame connected with the bead engaging portion of the shoe, substantially as described. 12th. A justifying shoe having a concave bead engaging portion formed with round ends, and a depressed centre, and an adjusting screw having its end secured to the depressed portion, substantially as described. 13th. The combination with an edgewise movable screen frame having a single flange at one edge, of independent positively adjustable justifying shoes secured on the edge at the side of the flange, and a securing button on the flanged edge opposite the flange, substantially as described.

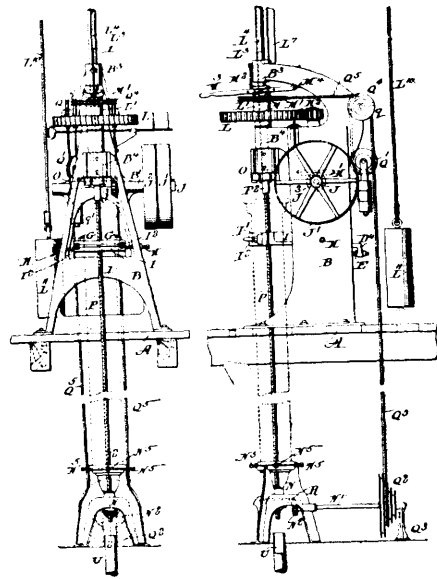
No. 61,288. Pipe Boring Machines.

(Machine à percer les tuyaux.)

Birney Clark Batcheller, Philadelphia, state of Pennsylvania, U.S.A., 1st October, 1898; 6 years. (Filed 18th July, 1898).

Claims.—1st. In a machine for boring pipes, the combination with a boring tool, as O, and connected at its rear end for turning said tool, of a feed screw, as P, connected to the tool in position to extend through the pipe in advance thereof, said feed screw being so connected to the tool as to move longitudinally with it while being unaffected by its rotative movement, a pipe rest, a pedestal N, a feed nut, as T T, adapted to engage the feed screw P, and means secured in the pipe rest for actuating said nut and causing the tool O, to feed through the pipe. 2nd. In a machine for boring pipes, the combination with a boring tool, as O, and means for turning said tool connected at its rear end, of a feed screw, as P, connected to the tool in position to extend through the pipe in advance thereof, said feed screw being so connected to the tool as to move longitudinally with it while being unaffected by its rotative movement, a pipe rest, as pedestal N, a feed nut, as T T, adapted to engage the feed screw P, and means secured in the pipe rest and driven synchronously with the mechanism for turning the tool for actuating

said nut and causing the tool O, to feed through the pipe. 3rd. In a machine for boring pipes, the combination with a vertically mov-



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able boring tool, as O, and means for turning said tool connected at its rear end, of a feed screw, as P, depending from said feed screw being so connected to the tool as to move longitudinally with it while being unaffected by its rotative movement, a pedestal, as N, adapted to serve as a rest for the lower end of the pipe and situated below the tool O, a feed nut, as T T, adapted to engage screw P, means secured in the pedestal for rotating said nut to cause the tool to feed through the pipe. 4th. In a machine for boring pipes, the combination with a vertically movable boring tool, as O, means for counterbalancing, and means for turning said tool, of a feed screw, as P, depending from said tool, a pedestal, as N, adapted to serve as a rest for the lower end of the pipe and situated below the tool O, a feed nut, as T T, adapted to engage screw P, means secured in the pedestal for rotating said nut to cause the tool to feed through the pipe. 5th. In a machine for boring pipes, substantially as described, a pedestal N, having a pipe rest platform N', and means for centering the pipe thereon, in combination with a feed screw P, means for engaging said screw to prevent its turning in the pedestal but without interfering with its longitudinal movement, a feed nut adapted to engage screw P, supported on the pedestal and means for rotating said nut. 6th. In a machine for boring pipes, a pipe rest platform N', and means for centering the pipe thereon, in combination with a feed screw P, means for engaging said screw to prevent its turning in the pedestal but without interfering with its longitudinal movement, a gear wheel R, having nut bearings, as R', a split feed nut, as T T, secured in said bearings, means as bolts T', for securing the parts of the feed nut together, and means for rotating gear wheel R. 7th. In a machine for boring pipes, a pipe rest platform N' and means for centering the pipe thereon, in combination with a feed screw P, means for engaging said screw to prevent its turning in the pedestal, but without interfering with its longitudinal movement, a gear wheel R having nut bearings, as R', a split feed nut, as T T, having one or more longitudinal recesses, as T', cut through its threads secured in said bearings, means as bolts T' for securing the parts of the feed nuts together and means for rotating gear wheel R. 8th. In a machine for boring pipes, a pipe rest platform, as N', and means for centering a pipe end thereon in combination with a pipe clamp, as U I, clamp adjusting slides D and F arranged to give said clamp a universal motion, means for clamping said slides together and to the frame of the machine to secure the clamp and pipe in a determined position, a boring tool and means secured on the frame for rotating said tool, a feed screw secured to the tool so as to be unaffected by its rotation, and a feed nut connected with the pedestal aforesaid for engaging the feed screw and moving it and the boring tool longitudinally. 9th. In a machine for boring pipes substantially as described, the combination with a vertically movable boring tool, a frame and mechanism for guiding and rotating said tool, a pedestal for supporting the lower end of the pipe, mechanism situated in said pedestal for longitudinally feeding the boring tool, a pulley and rope belt system for transmitting motion from the mechanism for rotating the tool to the pedestal, mechanism for feeding said tool and a clutch for engaging and disengaging said mechanism.