

McC. YOUNG.

MACHINE FOR BORING PIPE-STEMS.

No. 176,116.

Patented April 11, 1876.

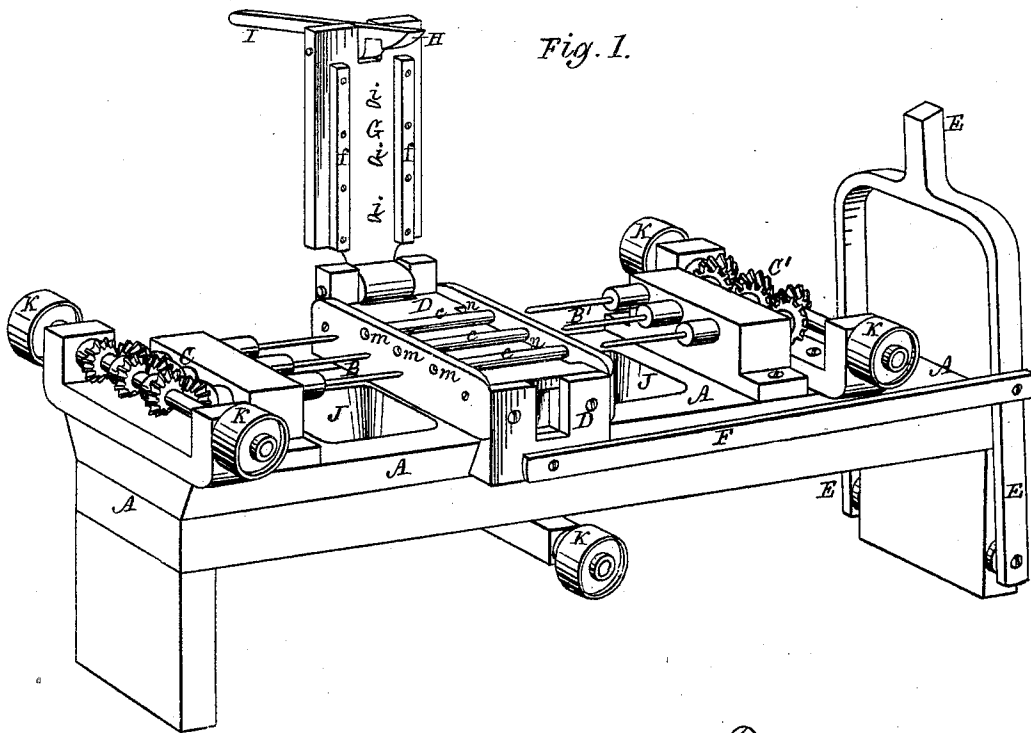


Fig. 1.

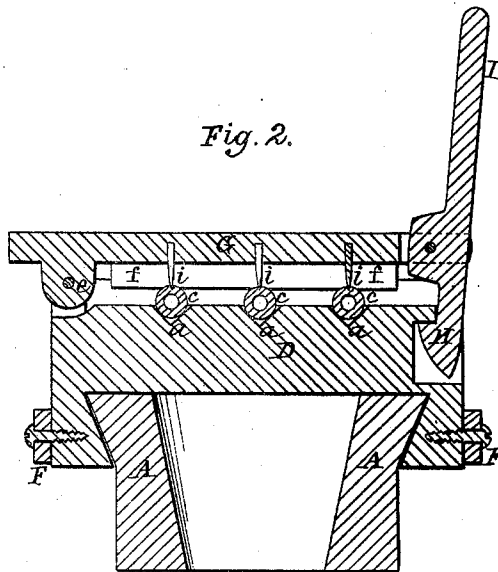


Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN MACHINES FOR BORING PIPE-STEMS.

Specification forming part of Letters Patent No. 176,116, dated April 11, 1876; application filed June 19, 1875.

To all whom it may concern:

Be it known that I, MCCLINTOCK YOUNG, of Frederick, in the county of Frederick and State of Maryland, have invented certain new and useful Improvements in Machines for Boring Pipe-STEMS; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents, in perspective, the machine with the cover or clamp of the carriage raised up to show the interior; and Fig. 2 represents a transverse vertical section taken through the carriage and frame, and showing the sticks or pipe-stems clamped in said carriage.

My invention relates to a machine in which a series of sticks or blanks are firmly held in a carriage, which carriage is first moved toward a gang of revolving drills at one end of the bed or main frame, by which said blanks are partially bored through from one end, and then moved toward another gang of drills at the opposite end of the bed or frame, by which said blanks are bored from their opposite ends, as will be explained.

The frame or bed of the machine is shown at A. A gang of drills, B B', with suitable mechanisms, C C', for driving them, are arranged one at each end of the frame or bed A. Upon ways or guides in or on the frame is placed a carriage, D, which, by means of the lever E and connecting-rods F, can be moved to or from either of the gangs of drills. In the bed or bottom of the carriage are made a series of seats, *a a*, &c., for gaging, placing, and holding a series of sticks or blanks, *c c*, &c., so as to insure their being centered accurately in relation to the series or gangs of drills that are to bore them from their two ends. The lid, cover, or clamp G is hinged to the carriage, as at *e*, and has upon its opposite end a latch or catch, H, with a projecting handle, I, for operating it. On the under or inner side of the lid, cover, or clamp are placed strips *f f*, of rubber or other elastic material, which, when said lid or cover is brought down and locked, press upon the sticks or blanks *c c*, &c., and prevent them from turning while being bored by the drills.

For finished or dressed blanks the rubber or other equivalent holding substance, will clamp them in their seats with sufficient force to prevent them from turning under the influence of the drills. If undressed sticks or blanks are used, then the spurs *i i*, &c., may be used to aid the rubber in holding them; or both may be used and the spur-marks afterward dressed or rubbed off, or remain if they do not mar the appearance of the finished pipe stems. Through the sides of the carriage are made a series of holes, *m m*, &c., through which the drills pass to reach the blanks, and these holes not only steady the drills, but also direct them to the centers of the sticks or blanks they are respectively to act upon. Through the frame or bed A are made openings J J, for the chips to drop through, and between the bed or bottom of the carriage and its sides are also made openings *n*, to allow the fine borings to drop through. Belt or band pulleys K are shown, over or around which the bands or belts to drive the gangs of drills may pass. Instead of moving the carriage D to and from the gangs of drills B B', said carriage may be stationary, and the gangs of drills moved to and from the former, the result being the same in both cases.

Having thus fully described my invention, what I claim is—

1. The carriage D, provided with a series of seats, *a a*, for placing and centering a series of sticks or blanks in relation to a series of drills, as and for the purpose described and represented.

2. In combination with a carriage having a series of seats, *a a*, to receive the sticks or blanks that are to be bored, the rubber strips *f* and spurs *i* on the clamp or holder, for holding said sticks or blanks to prevent turning while being bored, substantially as described.

3. In combination with a moving carriage carrying a series of sticks or blanks, centered therein by means of a clamp and seats, *a a*, the holes *m m*, for guiding and steadying the series of drills in relation to their special stick or blank, as and for the purpose described.

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Witnesses:

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