2 Sheets--Sheet 1.

H. NEAMANN.

Boring and Mortising Machine.

No. 165,495. Patented July 13, 1875.

Fig. 1.

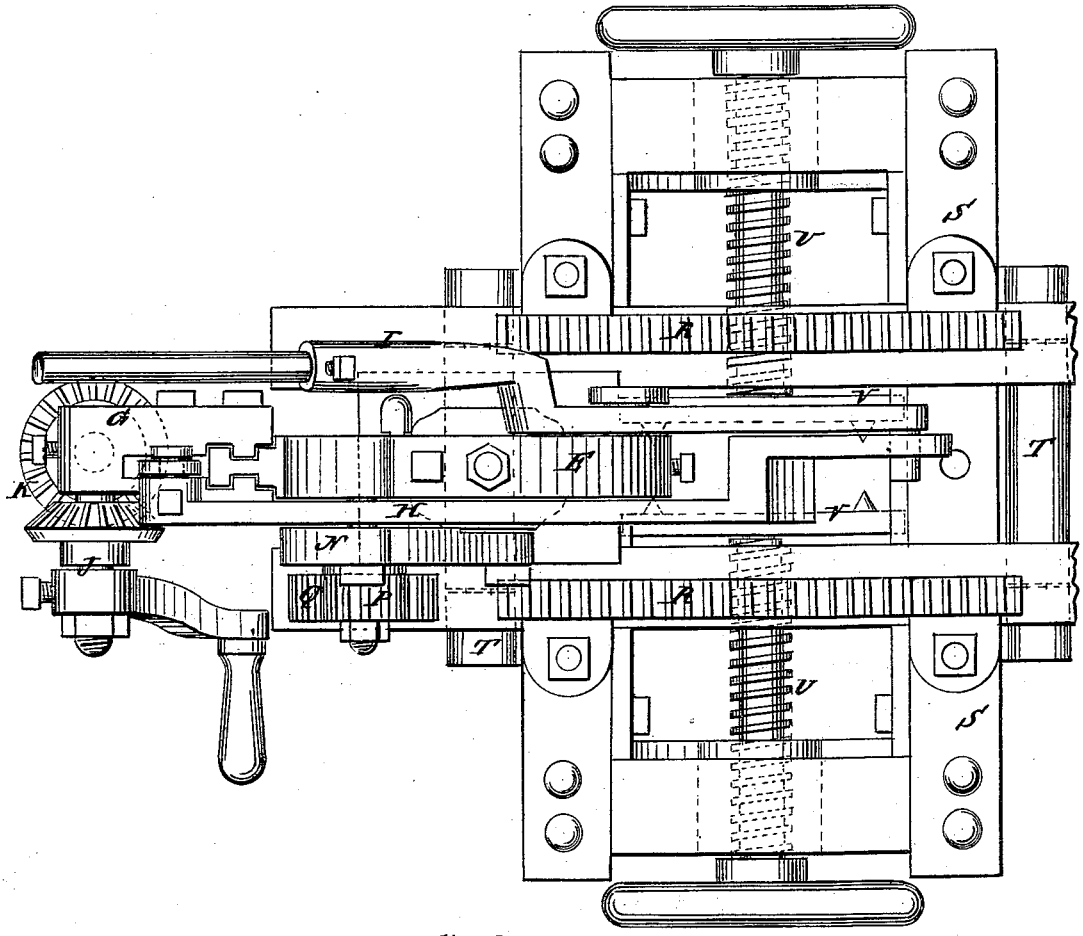
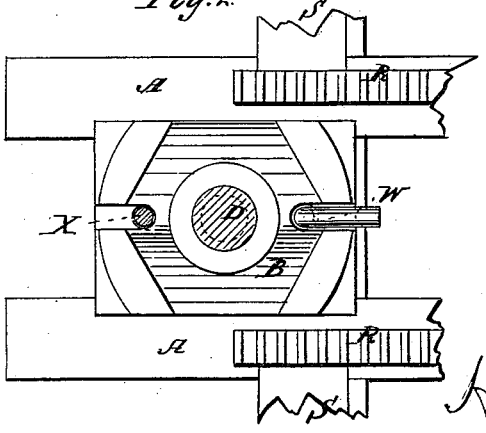


Fig. 2.



WITNESSES:

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A. F. Terry

INVENTOR:

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2 Sheets--Sheet 2.

H. NEAMANN.

Boring and Mortising Machine.

No. 165,495. Patented July 13, 1875.

Fig. 3.

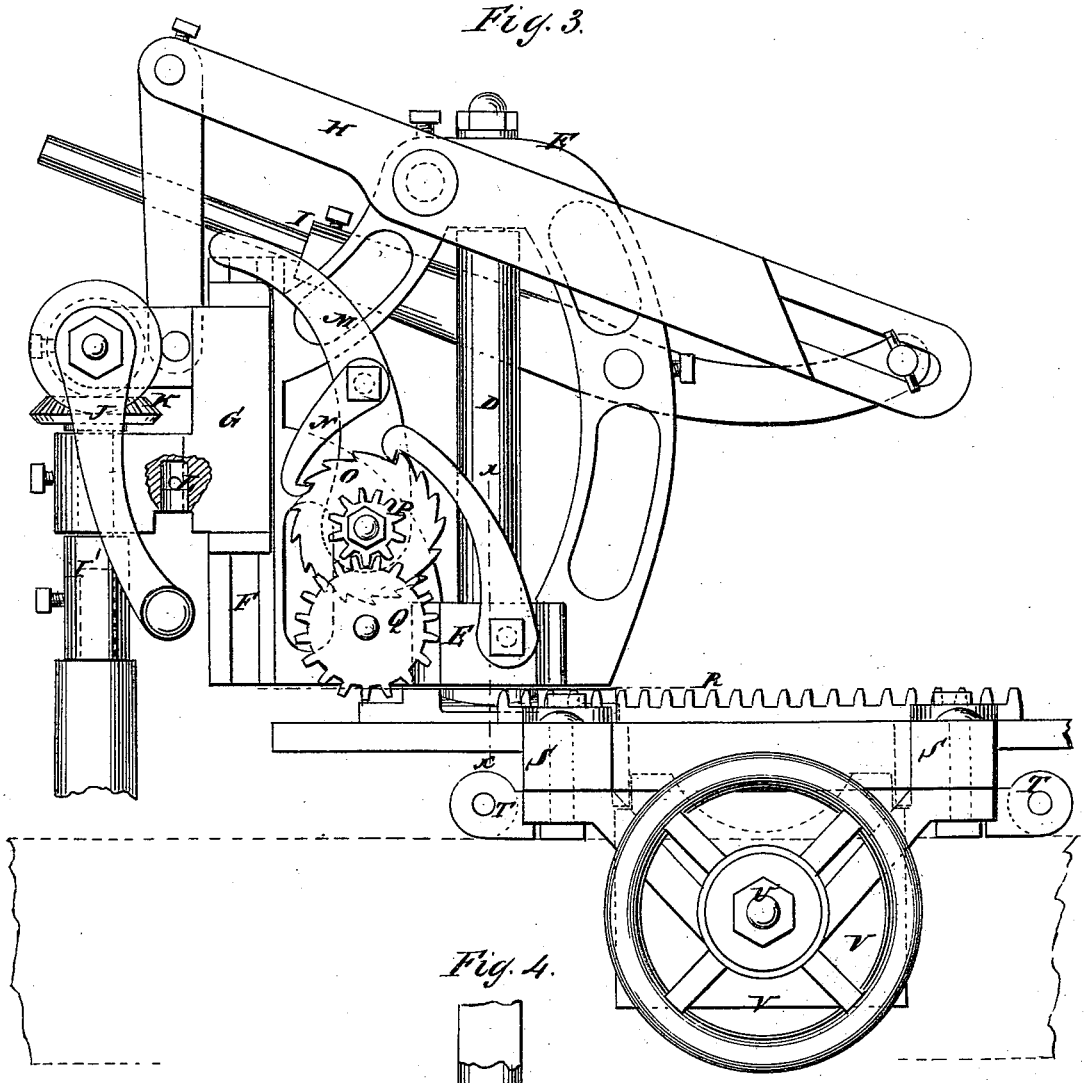
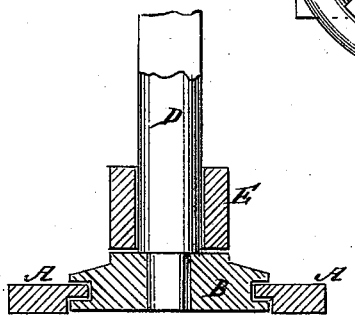


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY NEAMANN, OF CENTRAL CITY, COLORADO TERRITORY.

IMPROVEMENT IN BORING AND MORTISING MACHINES.

Specification forming part of Letters Patent No. **165,495**, dated July 13, 1875; application filed May 22, 1875.

To all whom it may concern:

Be it known that I, HENRY NEAMANN, of Central City, in the county of Gilpin and Territory of Colorado, have invented an Improvement in Boring and Mortising Machines, of which the following is a specification:

The invention consists of the sliding support for the tool-slide, contrived to be shifted around on its sliding base, in combination with feed-racks on both sides, whereby the mortising-tool may be fed up to both ends of the mortise.

The invention also consists in a portable boring and mortising machine, having rollers for shifting it along the timber easily, and provided with clamps and screws for attaching it to the latter.

Figure 1 is a plan view of my improved boring and mortising machine. Fig. 2 is a detail in horizontal section, showing some of the contrivance for shifting the mortising-tool about for feeding both ways. Fig. 3 is a side elevation; and Fig. 4 is a detail in sectional elevation taken on line *x x* of Fig. 3.

Similar letters of reference indicate corresponding parts.

A represents a couple of parallel ways, on which a bed-piece, B, is fitted to slide forward and backward, in which is supported the vertical shaft D, on which is pivoted the frame E, carrying the vertical ways F on which the boring tool-head G is made to reciprocate by the levers H and I, so that said head may be shifted to the front either way on the ways A, and thus be worked up to both ends of the mortise. I is the boring-tool stock. J the crank, and K the wheels for turning it, all being contrived in the ordinary way. L is a socket for the head G for the mortising-chisel. M is the pawl-lever for feeding the machine along when using the chisel by means of the pawl N, ratchet O, pinion P, wheel Q, and toothed bar R, the lever being raised by the head G, when it is raised to work the chisel, and falling back by its own gravity. When using the boring-tool the pawl-lever does not work, and the machine does not feed, but it may be shifted along by hand to shift the auger for the different holes. W is a pin for fastening the sliding bed on the ways, so as not to slide when it is required to stand still for boring, and X a pin for fastening the revolving-frame E in working position. The ways A are mounted on a strong frame, S, having rollers T under them for shifting the machine along the timber easily, and also having clamp-screws U, and clamping-plates V, by which the ways are made fast to the timber.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The sliding tool-carrying frame E, arranged to revolve horizontally, and the feed mechanism thereon, in combination with a feeding-rack, R, on both sides of the ways in which the frame slides, substantially as specified.

The clamp screws U, clamping-plates V, frame S, rollers T, and the ways A, combined and arranged substantially as specified.

HENRY NEAMANN.

Witnesses:

HARLEY B. MORSE,

I. N. WILCOXEN.