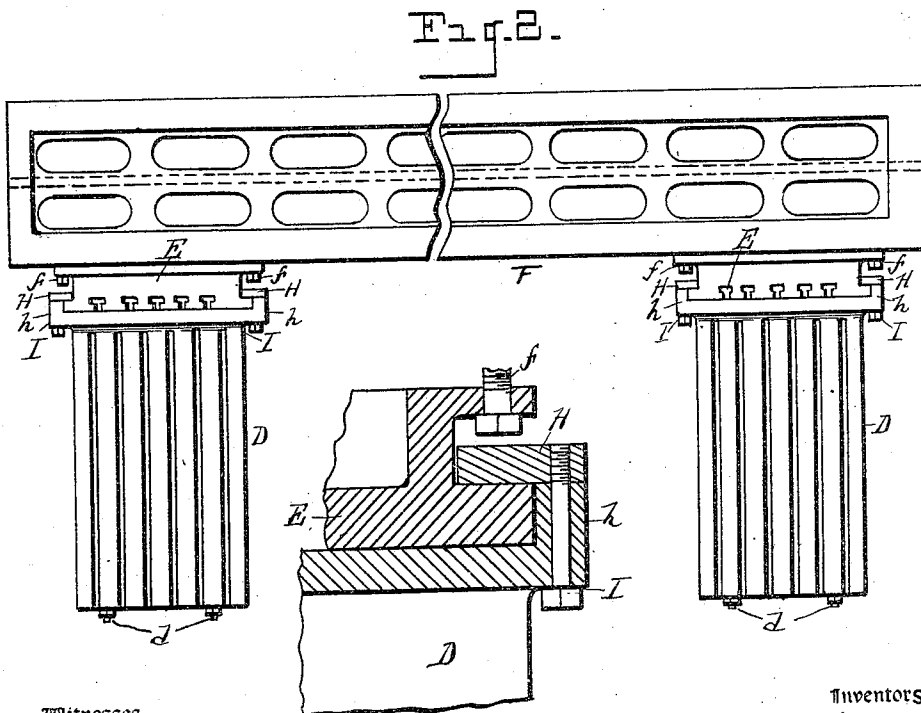
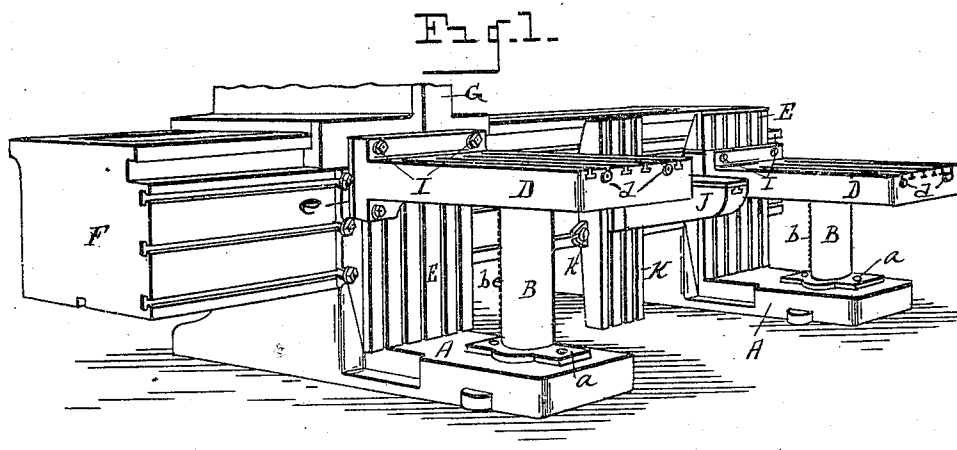


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APPLICATION FILED JULY 30, 1908.

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Patented Sept. 14, 1909.

2 SHEETS—SHEET 1.



Witnesses

O. B. Baenziger.  
L. E. McIvram.

Inventors

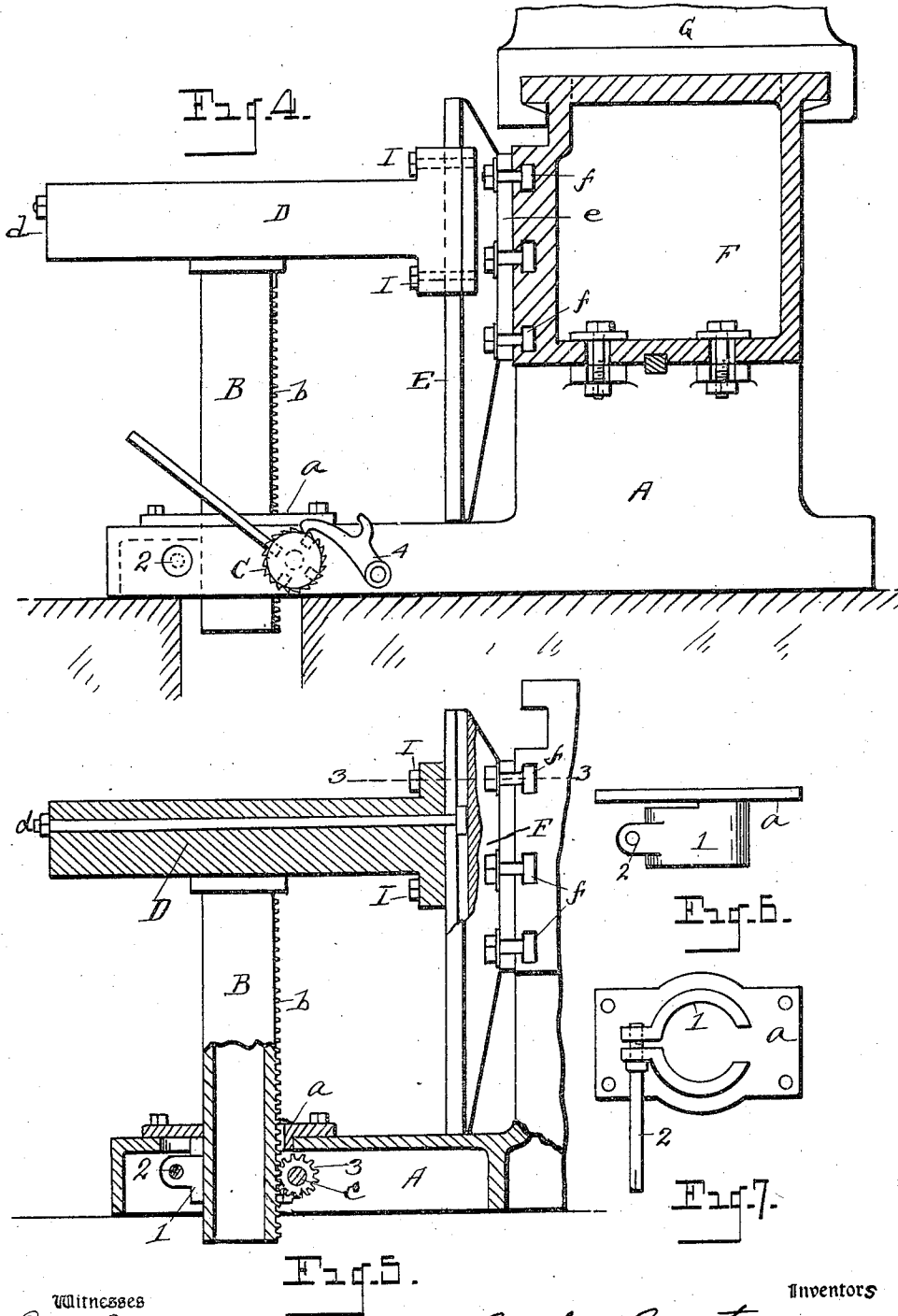
Matthew Morton  
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Matthew Morton  
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# UNITED STATES PATENT OFFICE.

MATTHEW MORTON AND HENRY E. MORTON, OF MUSKEGON HEIGHTS, MICHIGAN.

SUPPORTING MECHANISM FOR DRAW-CUT SHAPERS AND ANALOGOUS MACHINES.

934,088.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed July 30, 1908. Serial No. 446,057.

*To all whom it may concern:*

Be it known that we, MATTHEW MORTON and HENRY E. MORTON, citizens of the United States, residing at Muskegon Heights, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Supporting Mechanism for Draw-Cut Shapers and Analogous Machines, of which the following is a specification.

Our invention is designed to provide improved supporting mechanism for a draw cut foundry shaper or other analogous machine and it consists of the construction, combination and arrangement of devices hereinafter described and claimed and illustrated in the accompanying drawings, in which,

Figure 1 is a view in perspective illustrating our invention. Fig. 2 is a plan view. Fig. 3 is a view in section on the line 3—3 Fig. 5. Fig. 4 is a view in end elevation. Fig. 5 is also an end elevation showing portions in vertical section. Fig. 6 is a detail view of one of the clamping plates in elevation. Fig. 7 is an inverted plan view of one of said clamping plates.

We carry out our invention as follows:

The supporting mechanism consists of one or more base plates A located at intervals to which a bed and other parts of the machine are bolted. The base plates are provided with suitable clamping plates *a* through which project cylindrical columns B to each of which a rack bar *b* is secured. The clamping plates are so arranged as to grip and hold the cylindrical columns firmly. For this purpose the clamping plates are provided with split sleeves 1 projecting downward therefrom, the sleeves being gripped by screws 2 projecting through the base plate so that they may be readily actuated. Ratchet wheels C are employed, each provided with a shaft *c* passing through the base plate, said shaft having mounted thereupon a pinion 3 engaging the corresponding rack bar to raise and lower said column. A pawl 4 engages the corresponding ratchet wheel so that the column may be securely held in any given position. To the upper extremities of the column, tables D are attached, said tables being movably engaged upon vertically slotted plates E. The corresponding bolts *d* pass through the table and engage the table with the corresponding slotted plate.

It will be seen that the movements of the tables, when they are to be raised and lowered, may be quickly effected, and the tables locked firmly in any desired position and securely held by the bolts passing through the tables and engaging the slots in the vertical plates E. It will be evident also that one of said tables may be set in a given position, as for a thin piece of work, while the other table may be lowered to receive a thicker piece or portion of the work. The vertical plates E are attached to the front side of a bed F of any desired length, said bed being bolted securely to the base plates E, said base plates being provided with lugs *e* on either side so that the bed may be quickly detached and removed from the base plates if desired and used as a portable machine independently of the base plates. The transverse head G is designed to carry other portions of the machine, not shown, which may be desired, to be located upon the top of the table F.

The vertical plates E are attached to the bed F by bolts *f* thereat, the heads of which are engaged in longitudinal T-shaped slots on the adjacent face of the bed as shown. The tables D are attached to the plates E by means of clamping plates H bolted through flanges *h* of the table as shown at I.

It will be seen from the foregoing description, together with the drawings, that the tables D are movable vertically and also laterally by means of the connection of the plates E with the bed F, while also the said bed may be entirely removed from said tables and plates, as well as from the base plates A. A movable plate J may be located between the two tables, to be adjusted vertically upon the center support K, which may be attached to the bed F as by means of bolts *k*. This plate J may or may not be employed, but if used it will form a center support while machining a long piece of work.

The operation of the improved supporting mechanism will now be understood.

What we claim as our invention is:

1. Supporting mechanism for the purpose described comprising base plates, a bed detachably engaged therewith, vertical plates laterally adjustable upon said bed, vertically adjustable columns supported upon said bed plates, and tables supported upon said columns, said tables vertically ad-

justable upon said vertical plates, and said base plates laterally adjustable upon said bed.

2. Supporting mechanism for the purpose described comprising base plates, a bed detachably engaged therewith, vertical plates laterally adjustable upon said bed, vertically adjustable columns supported upon said bed plates, clamping plates to hold said columns in given position upon the bed plates, and tables supported upon said columns said tables vertically adjustable upon said vertical plates, and said base plates laterally adjustable upon said bed.

3. Supporting mechanism for the purpose described comprising base plates, a bed detachably engaged therewith, vertical plates laterally adjustable upon said bed, vertically adjustable columns provided with rack bars supported upon said base plates, mechanism to engage said rack bars to actuate said columns, and tables supported upon said columns, said tables vertically adjustable upon said vertical plates, said base plates laterally adjustable upon said bed.

4. Supporting mechanism for the purpose described comprising base plates, a longitudinally slotted bed detachably engaged

with said base plates, vertically slotted plates laterally adjustable upon said bed, vertically adjustable columns supported upon said base plates, and horizontally slotted tables supported upon said columns, said tables vertically adjustable upon said vertical plates, said base plates laterally adjustable upon said bed.

5. Supporting mechanism for the purpose described comprising base plates, a bed, vertical plates laterally adjustable upon said bed, vertically adjustable columns supported upon said base plates, clamping plates to hold said columns in given position each provided with a split sleeve, means to grip the sleeve upon the column, tables supported upon said columns vertically adjustable upon said vertical plates, rack bars engaged with said column, a pinion engaging said rack bar, and ratchet mechanism to actuate and hold said pinion.

In testimony whereof we have signed this specification in presence of two witnesses.

MATTHEW MORTON.

HENRY E. MORTON.

Witnesses:

NORRIS E. MARCH,

ALEXANDER VAN ZANTEN.