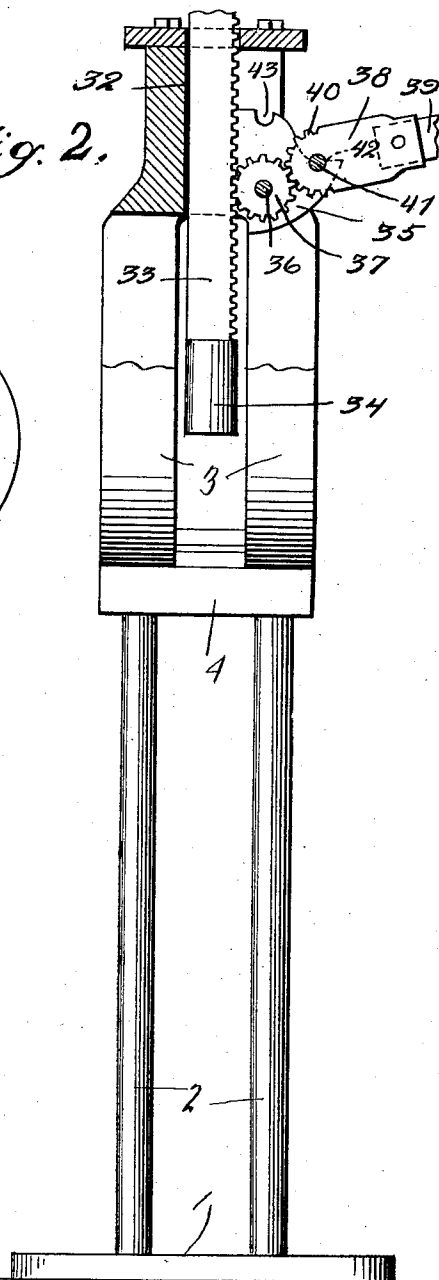


1,033,050.



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UNITED STATES PATENT OFFICE.

JOHN A. GILMORE, OF SOUTH BOSTON, MASSACHUSETTS.

COMBINED ARBOR-PRESS AND PUNCHING-MACHINE.

1,033,050.

Specification of Letters Patent.

Patented July 16, 1912.

Application filed July 19, 1911. Serial No. 639,358.

To all whom it may concern:

Be it known that I, JOHN A. GILMORE, a citizen of the United States, residing at South Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Combined Arbor-Presses and Punching-Machines, of which the following is a specification.

This invention relates to a combined arbor press and punching machine, and has for its object to provide a combined machine of the above mentioned character, which is easily and quickly operated, simple in construction, and cheap to manufacture.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same, Figure 1 is a front elevation of the machine, parts being omitted. Fig. 2 is a side elevation of the same partly in section on line 2—2 of Fig. 1.

In the drawings wherein is illustrated a preferred embodiment of my invention, the numeral 1 designates a base upon which are mounted uprights or legs 2. Upon the upper ends of these uprights is mounted a frame-work comprising oppositely arranged pairs of castings comprising arms 3. The arms in each pair have their lower ends connected with a transverse casting 4, which is rigidly mounted upon the pair of uprights 2. The lower transverse castings 4 have pockets 6 formed upon their upper face, to receive the ends of a removable bed plate 7, constituting work-holding means.

The upwardly extending castings or arms 3 have connection at their upper ends with a vertical head 31, provided with a longitudinal opening 32 to receive the rack-bar 33 carrying at its lower end a plunger 34, as shown. Spaced ears 35 are attached to the head 31 and a transverse shaft 36 is journaled through the lower portion of these ears. This shaft carries an intermediate pinion 37 in constant engagement with the rack-bar 33.

The numeral 38 designates a head or casting provided at its outer end with a socket for receiving an operating lever 39 and at its inner end this casting is rounded and provided with pinion teeth 40. A shaft

41 passes through the casting 38 in concentric relation with the teeth 40 and is adapted to be removably seated within either of the pairs of recesses 42 or 43, which are cut a little more than semi-circular to prevent the accidental displacement of the shaft 41.

In the operation of this second form of my invention, when the shaft 41 is journaled in the lower openings 42, the pinion teeth 40 engage the intermediate pinion 37. By oscillating the lever 39 downwardly the rack-bar 33 and plunger 34 are forced downwardly. When the shaft 41 is transferred to within the openings 43, the pinion teeth 40 directly engage the teeth of the rack-bar, whereby a downward swinging of the lever 39 will elevate the rack-bar 33.

I wish it understood that the form of my invention herewith shown and described is to be taken as preferred examples of the same and that certain changes in the shapes, sizes, and arrangements of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:—

A combined arbor press and punching machine, comprising a base, spaced pairs of upstanding legs rigidly mounted on the base, spaced horizontal transverse castings rigidly connecting upper ends of the upstanding legs in said pairs, pairs of arms formed upon the transverse horizontal castings and curved outwardly near their lower ends and inwardly toward their upper ends, a head connecting the upper ends of the curved arms, said transverse horizontal castings being provided upon their inner faces with pockets, a base-plate having its ends removably mounted in the pockets, a plunger-carrying element mounted to reciprocate through an opening in said head above the base-plate, and means to move said plunger-carrying element up and down.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. GILMORE.

Witnesses:

HENRY L. RICHMOND,
W. A. RICHMOND.