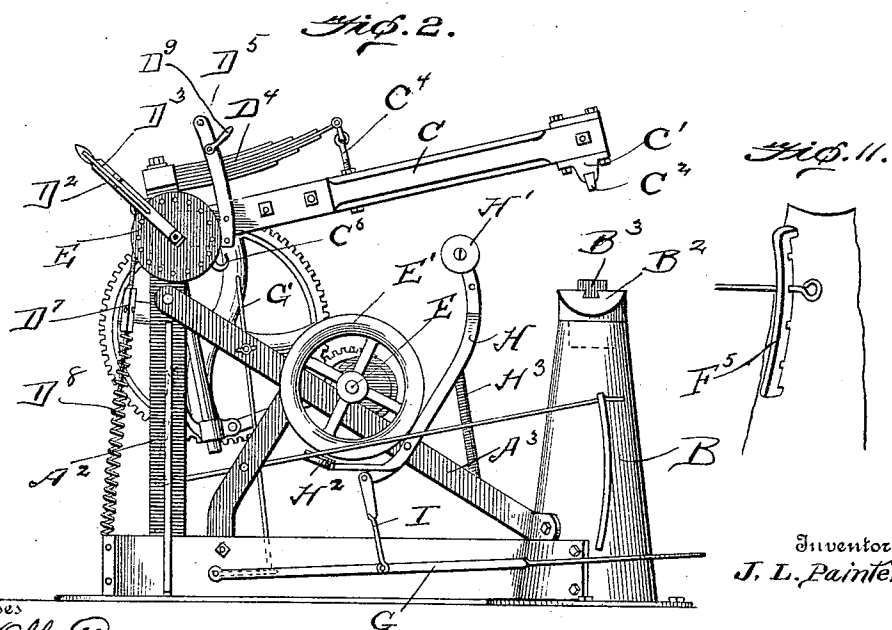
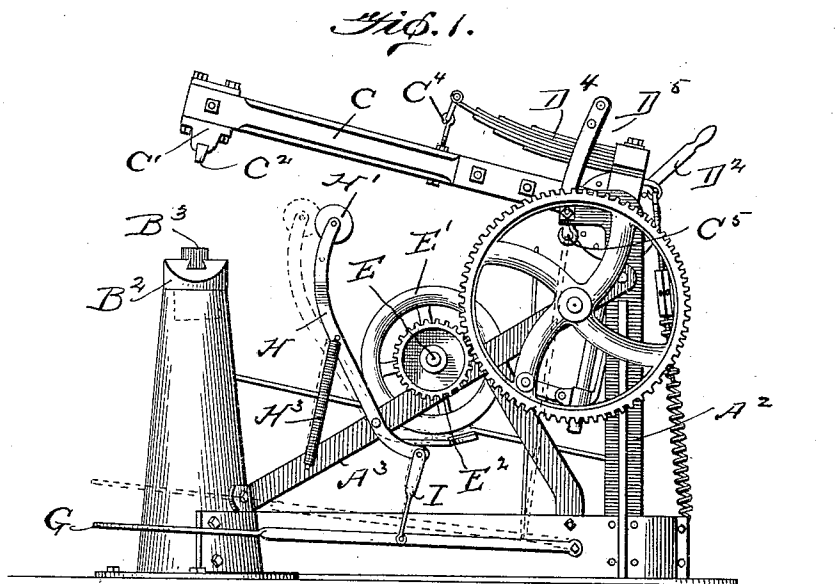


J. L. PAINTER.
POWER HAMMER.
APPLICATION FILED AUG. 5, 1905.

941,093.

Patented Nov. 23, 1909.

3 SHEETS—SHEET 1.



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Fig. 3.

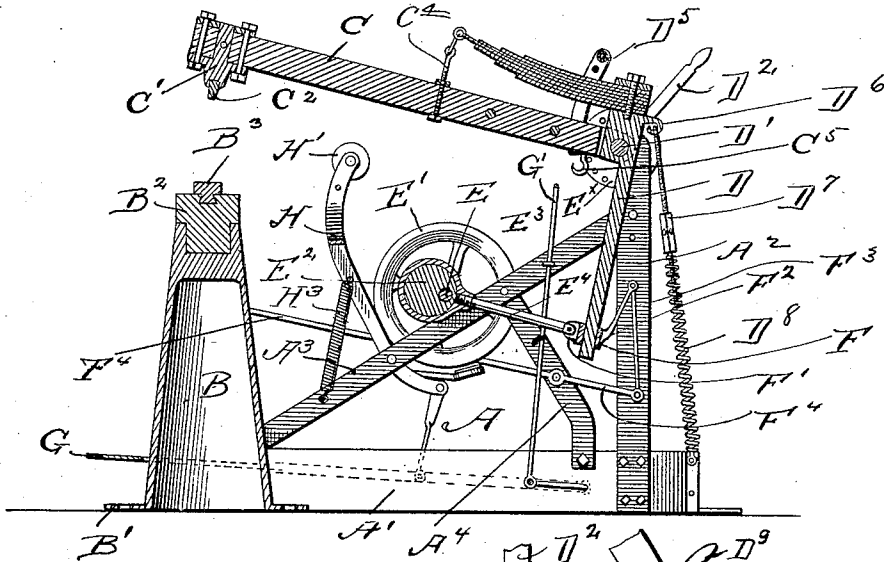


Fig. 4.

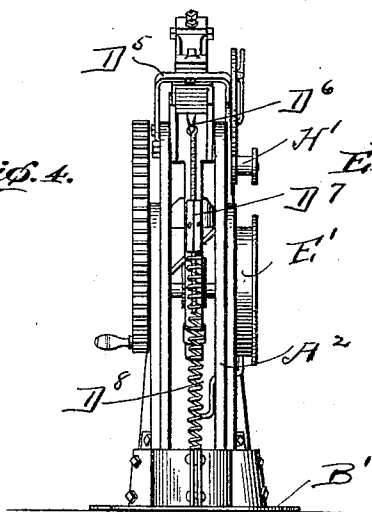
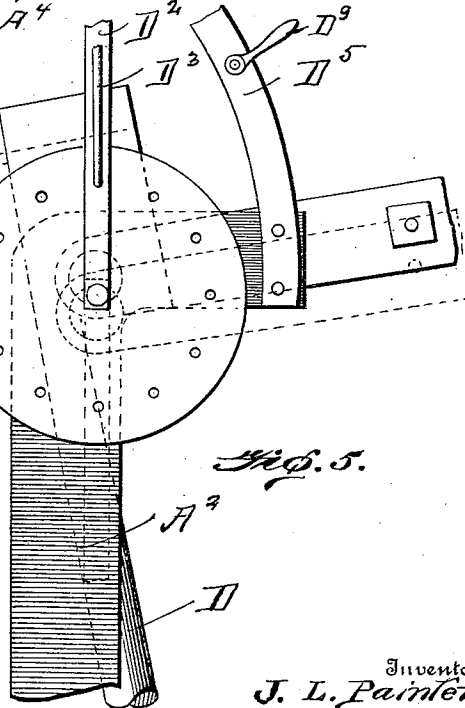


Fig. 5.



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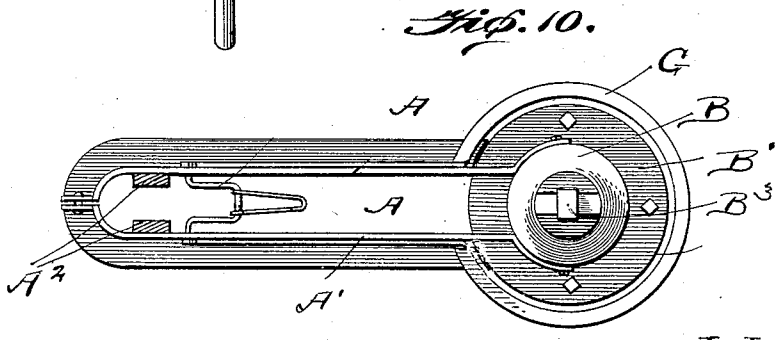
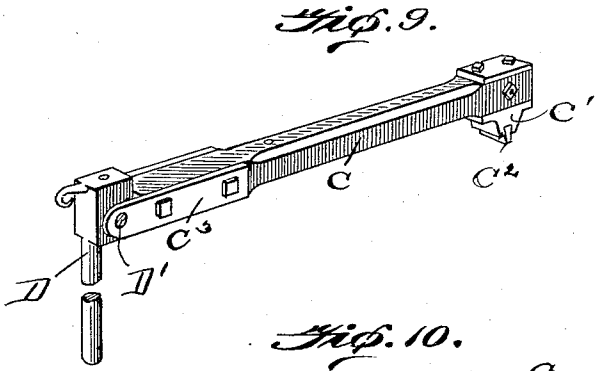
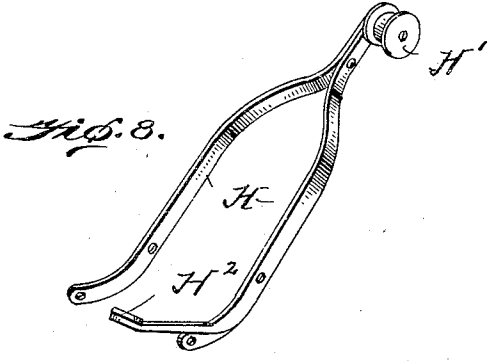
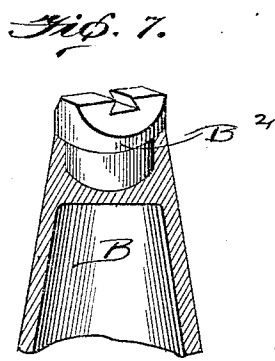
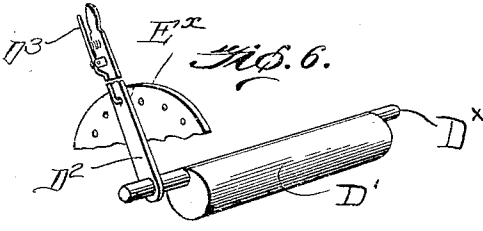
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UNITED STATES PATENT OFFICE.

JOHN L. PAINTER, OF BELLEVUE, OHIO.

POWER-HAMMER.

941,093.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed August 5, 1905. Serial No. 272,845.

To all whom it may concern:

Be it known that I, JOHN L. PAINTER, a citizen of the United States, residing at Bellevue, in the county of Huron and State of Ohio, have invented a new and useful Power-Hammer, of which the following is a specification.

My invention relates to certain new and useful improvements in power hammers and has for its object to provide a hammer that is very simple and cheap in construction and one that can be operated by belt, hand or foot power as may be desired.

Another object of my invention is to provide a power hammer with regulating mechanism so that the hammer can be adjusted so as to strike a hard or light blow and one that the helve can be adjusted for different thicknesses of work.

A further object of the invention is to provide a hammer so constructed that the foot power can be thrown out of gear when the belt or hand power is being used.

With these various objects in view, the invention consists of the novel features of construction, combination and arrangement of parts, hereinafter fully described and pointed out in the claims, and shown in the accompanying drawings, in which:

Figure 1 is a side elevation of the hammer. Fig. 2 is a side elevation taken from the other side. Fig. 3 is a longitudinal sectional view. Fig. 4 is an end view of the hammer. Fig. 5 is an enlarged detail view of the helve adjusting mechanism. Fig. 6 is a perspective view of the eccentric. Fig. 7 is a detail view of the anvil partly in section. Fig. 8 is a perspective view of the frame carrying the brake and belt tightener. Fig. 9 is a perspective view of the helve. Fig. 10 is a top plan view of the anvil and frame with the hammer mechanism removed, and Fig. 11 is a perspective view of the rack.

Referring to the drawings A, indicates the frame or base of the hammer consisting of the parallel L-shaped bars A', connected to the anvil B, at one end jointed at the other and provided with uprights A², adjacent their jointed end, and provided with braces A³, connected to the anvil B, and braces A⁴, connecting the braces A³, to the L-shaped bars A'. The anvil B, is provided with a circular flange B', at its bottom provided with openings so that it can be secured down, and the upper end is provided with a cap B², fitting in a recess of the anvil and

having a dove-tail groove in which is mounted a die B³.

The helve C is pivotally mounted between the upper ends of the uprights A² carrying a hammer C' at one end, and provided with a die C². Secured to the sides of the helve at the other end are outwardly extending apertured strips C³ in which is mounted an eccentric D' on which is loosely mounted an operating lever D between the strips. The eccentric is carried by a journal D^x which extends out beyond the uprights A² of the frame having a lever D² secured on one end provided with a pivoted spring-actuated locking pin D³ adapted to pass through the opening in the lever into the perforations of a disk E^x secured to the adjacent upright so that by shifting the lever the helve can be moved forward, backward, or up or down so as to adjust the helve to suit different thicknesses of work that is to be used on the anvil.

The upper end of the lever D is provided with a series of flat springs D⁴ extending over the helve C and carrying a hook at the end, by means of which they are secured to the helve C by the eye-bolt C⁴, secured in the helve so that the helve will be drawn up by the tension of the springs after a blow has been struck, but is checked from going too far by the guide arms D⁵, which extend up from the uprights having their ends connected together by a bolt carrying a sleeve, and provided with a hand-bolt D⁶, so that the guide arms can be tightened so as to prevent the helve from swaying. A hook D⁶ extends out from the lever D to which a turn-buckle D⁷ is secured, carrying a coil-spring D⁸, the other end of which is secured to the base of the frame, adapted to be used when the helve is operated by foot-power, for raising the helve after a blow has been struck.

Journaled in bearings secured on the braces A³ of the frame, is a shaft E carrying a drive-pulley E' at one end, and a gear-wheel at the other end, meshing with the large-wheel provided with a handle, mounted on a shaft journaled in bearings secured on the braces A³. The shaft E is provided with an eccentric E² on which is mounted a sleeve E³ provided with a screw-threaded recess, in which is secured a pitman rod E⁴, the outer end of which is pivoted between the lugs F' of a sleeve F, loosely mounted on the lower end of the lever D. The sleeve F is also provided with an arm F², to which is pivoted an arm F³ having a lever F⁴ connect-

ed to the other end, pivotally mounted on the brace A⁴ and extending out through the rack F⁵, secured to one side of the anvil, so that by adjusting the sleeve up and down on the lever D, the length of the stroke of the hammer will be increased or decreased as the case may be, so that the hammer can be adjusted so as to strike a hard or light blow as may be desired. It will be readily seen that as the power shaft is rotated, the sleeve on the eccentric will carry the pitman forward and backward, so as to raise and lower the helve.

Pivoted to the L-shaped bars is a foot-lever G, extending around the front of the anvil, and connected to a crank between the bars, adjacent their other ends having a rod G', connected thereto, which extends upwardly and is provided with a loop at its end, adapted to fit over a hook C⁵ secured in the under side of the helve, so that by pressing down on the foot-lever, the helve will be drawn down so as to strike a blow on the anvil.

Mounted on the braces A³ is a V-shaped frame H carrying a roller H' at one end, adapted to be thrown against the belt when one is being used, and tighten the same. The other end is provided with a brake-shoe H² adapted to be thrown into engagement with the pulley by the spring H³ connected to the brace A². Connected to the lower end of the frame are links I connected to the foot-lever G so that the belt-tightener can be operated by the same, when it is desired to drive the hammer by a belt, and when not in use, the link is detached.

From the foregoing description, it will be readily seen that I provide a power hammer that can be operated either by a belt, foot, or hand power and one which can be adjusted to suit the material that is being operated upon, as it will be readily seen that by shifting the eccentric which is mounted in the upright, the helve which is mounted thereon can be moved up or down, or back or forth, as desired.

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

1. In a power hammer, the combination with a frame, of a shaft mounted in the frame provided with an eccentric, strips mounted on said eccentric carrying a helve, a lever mounted on the eccentric between said strips, means for adjusting said eccentric, a spring secured to the upper end of said lever having its free end connected to the helve, a power shaft and means for operating the lever from the power shaft.

2. In a power hammer, the combination with a frame, of an eccentric shaft mounted in the upper end of said frame, a helve mounted on said eccentric, means for adjusting said eccentric, a lever mounted on said eccentric carrying a spring connected to said helve, a power shaft, and means connected to said power shaft for operating the lever.

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Witnesses:

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