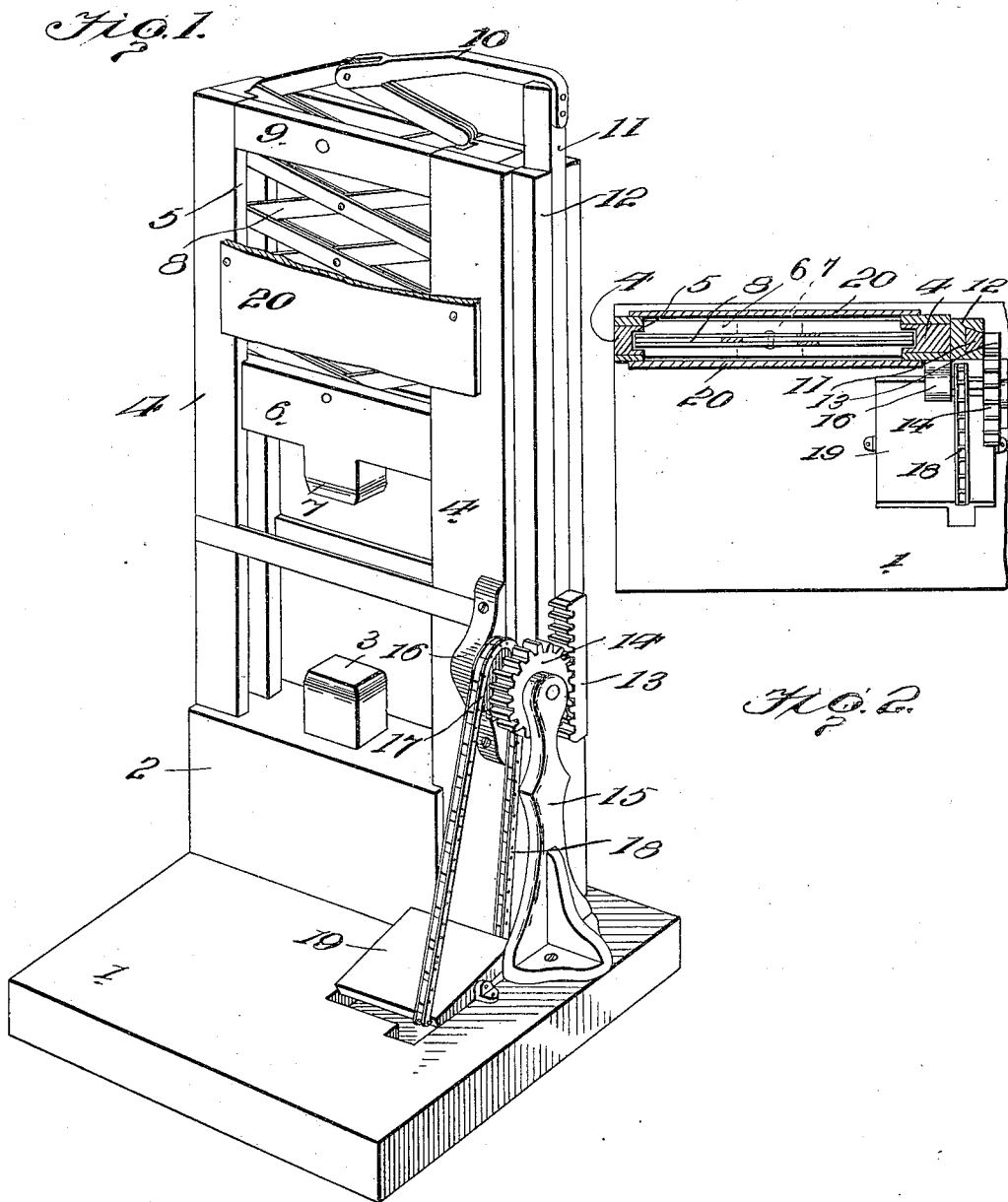


J. M. SWANSON.
MECHANICAL HAMMER.
APPLICATION FILED SEPT. 5, 1908.

934,701.

Patented Sept. 21, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN M. SWANSON, OF CORRY, PENNSYLVANIA.

MECHANICAL HAMMER.

934,701.

Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed September 5, 1908. Serial No. 451,835.

To all whom it may concern:

Be it known that I, JOHN M. SWANSON, citizen of the United States, residing at Corry, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Mechanical Hammers, of which the following is a specification.

The present invention relates to improvements in mechanical hammers and has for its object to provide a device of this character which embodies a novel construction whereby a blacksmith can do his own striking while welding two pieces together or performing a similar operation.

The invention further contemplates a hammer which is simple and inexpensive in its construction and which when installed in machine shops will eliminate the necessity of providing each blacksmith with a striker and thereby produce a great saving in labor.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a mechanical hammer embodying the invention portions being broken away. Fig. 2 is a horizontal sectional view through the same.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates the base and 2 a block which is mounted upon the base, the said block carrying an anvil 3 of any suitable type. Extending upwardly from the block upon opposite sides of the anvil are the standards 4, the inner faces of the standards being provided with the vertical guideways 5 between which a cross head 6 is mounted. The lower face of the cross head is provided with a hammer 7 designed to strike against the anvil as the cross head is reciprocated up and down, while the top of the cross head is connected to lazy tongs 8. These lazy tongs are pivotally connected at an intermediate point in their length to cross bars 9 at the upper ends of the standards, the upper extremity of the lazy tongs being loosely connected to an arm 10 which projects laterally from the upper end of a slide 11. This slide is mounted within a guide-

way 12 and is provided with a rack 13 which meshes with a pinion 14 journaled between an upright 15 projecting from the base and a bracket 16 upon one of the standards 4. Rigid with the pinion 14 is a sprocket wheel 17 around which is passed a chain 18 the two extremities of which are connected to opposite ends of a treadle 19 upon the base 1. It will thus be obvious that by placing the foot upon the treadle and rocking the same the chain will be drawn back and forth across the sprocket wheel 17 and will thereby alternately turn the pinion 14 in opposite directions so as to move the slide 11 up and down and thereby manipulate the lazy tongs to produce a reciprocating movement of the hammer. Attention is directed to the fact that the provision of the lazy tongs serves to magnify the movement so that the hammer may be given a comparatively long stroke by merely rocking the treadle. Plates 20 are preferably applied to opposite sides of the standards 4 so as to inclose the lazy tongs and prevent any accidents such as might be occasioned by the person of the operator coming into contact therewith. It will also be obvious that should it be desired suitable dies might be applied to the hammer and the anvil and the device utilized for stamping out washers from sheet iron, or for making similar articles.

Having thus described the invention, what is claimed as new is:

1. In a mechanical hammer, the combination of an anvil, a pair of standards projecting upwardly upon opposite sides of the anvil, a cross head slidable between the standards, a hammer upon the cross head, a slide mounted upon one of the standards, a lazy tong connection between the slide and the cross head, a rack upon the slide, a pinion engaging the rack, a sprocket wheel rigid with the pinion, a treadle pivoted between its ends, and a chain passing around the sprocket wheel and having the extremities thereof connected to opposite ends of the treadle.

2. In a mechanical hammer, the combination of an anvil, a pair of standards projecting upwardly upon opposite sides of the anvil, a cross bar connecting the standards, a cross head slidably mounted between the standards, a slide mounted upon one of the standards, an arm projecting from the upper end of the slide, lazy tongs pivotally connected between their ends to the before

mentioned cross bar, one end of the lazy
tongs being connected to the cross bar while
the opposite end of the lazy tongs is connect-
ed to the arm of the slide, a rack upon the
5 slide, a pinion meshing with the rack, a
sprocket wheel rigid with the pinion, a
treadle pivoted between its ends, and a chain
passing around the sprocket wheel and hav-

ing the extremities thereof connected to op-
posite ends of the treadle. 10

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

JOHN M. SWANSON. [L. s.]

Witnesses:

F. E. WHITTLESEY,
W. A. HEATH.