No. 829,682. PATENTED AUG. 28, 1906.

C. L. TAYLOR.

STEAM DROP HAMMER.

APPLICATION FILED MAR. 25, 1905.

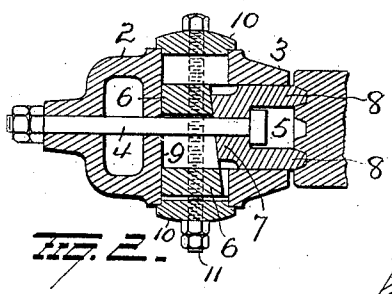
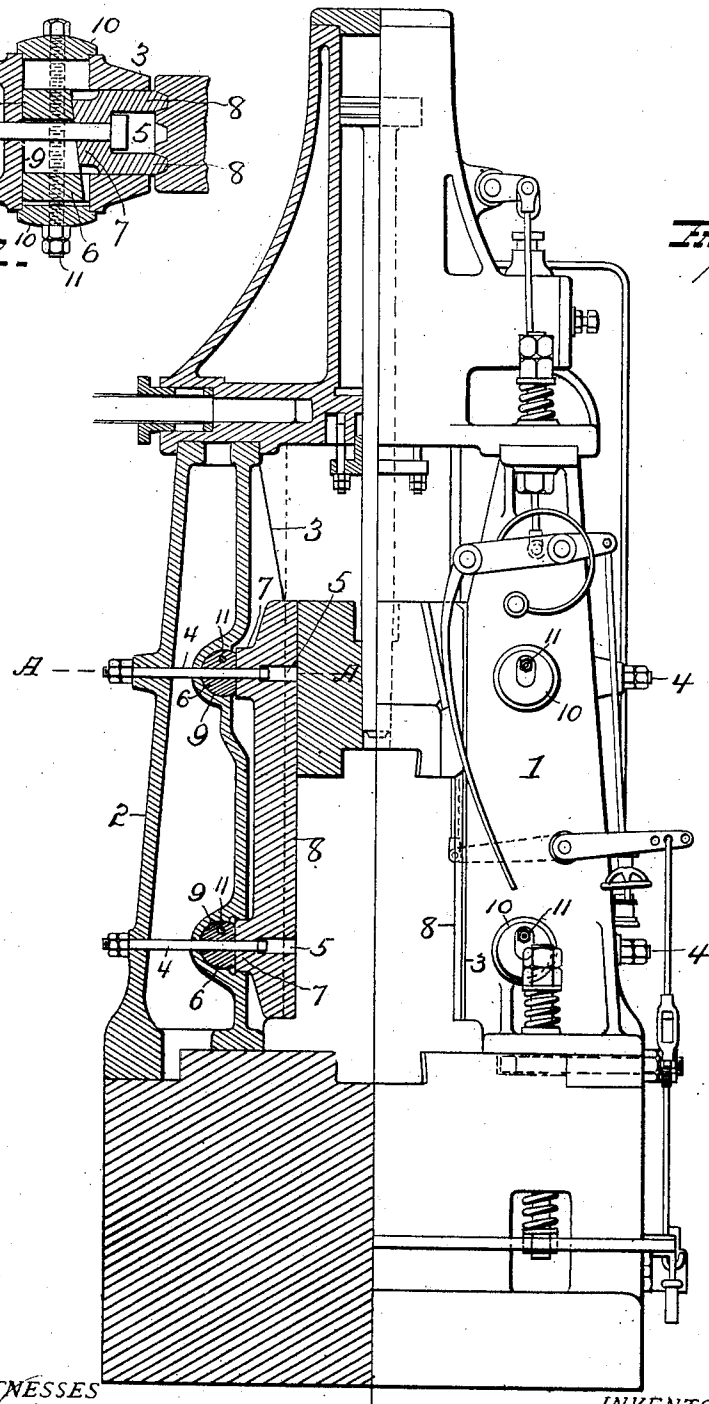


Fig. 2.

Fig. 1.



WITNESSES

E. L. Nottingham

G. F. Downing.

INVENTOR

C. L. Taylor

By H. G. Seymour

Attorney

UNITED STATES PATENT OFFICE.

CLARENCE L. TAYLOR, OF ALLIANCE, OHIO, ASSIGNOR TO THE MORGAN ENGINEERING COMPANY, OF ALLIANCE, OHIO.

STEAM DROP-HAMMER.

No. 829,682. Specification of Letters Patent. Patented Aug. 28, 1906.

Application filed March 25, 1905. Serial No. 252,069.

To all whom it may concern:

Be it known that I, CLARENCE L. TAYLOR, of Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Steam Drop-Hammers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in steam drop-hammers.

In all steam-hammers wherein the ram or hammer-head works in grooved guides the guides are seated against inclined seats on the side members of the hammer and are adjustable to compensate for wear by moving them upwardly on said inclined faces. This upward movement of the guides brings their inner faces closer together at the top as well as at the bottom.

It has been found in practice that the engagement of the die or hammer head with the article being forged causes lateral deflection of the die or hammer head, and this lateral deflection produces greater wear on the guides at and near their lower ends. Hence when the guides are adjusted to compensate for this excessive wear at their lower ends the upper ends of the guides are correspondingly adjusted. This frequently results in a binding of the upper ends of the guides against the hammer-head or ram or prevents sufficient adjustment of the guides to take up all the wear.

The object of the present invention is to provide means whereby the guides may be adjusted at either or both ends; and my invention consists in the parts and combinations of parts and details of construction, as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation, partly in section, of a hammer embodying my invention and Fig. 2 is a view in section on the line A A of Fig. 1.

1 represents the frame of a hammer, the side members 2 of which are provided on their inner faces with inwardly-projecting parallel flanges 3, between which the adjustable guides 8 are seated. These guides are provided with ribs and grooves on their outer edges to enter and receive corresponding grooves and ribs on the hammer-head or ram and are held in place between the flange 3 by the bolts 4, the heads of which rest within recesses 5 in the guides. These bolts 4 pass through the guides 8, wedge-blocks 6, and side members 2 and are held in place by nuts screwed on their outer ends. The blocks 6 are preferably cylindrical in shape, with one flat side, the latter being inclined, as shown in Fig. 2, forming, in effect, wedges, each of which bears against a correspondingly-inclined face formed on the rearward projections 7 of the guides 8. The wedge-blocks 6 are seated in curved seats 9, the ends of which latter are closed by caps 10, held in place by a bolt 11, passing through both caps and the intermediate wedge-block. The wedge-blocks are provided with elongated slots for the passage of the bolts 4. Hence the blocks can be adjusted by simply loosening up the bolts 4 and without removing the latter. If desired, the bolts 11 may be screw-threaded to engage female threads on the blocks, and when so constructed the blocks will be moved longitudinally by simply rotating the bolts and will be held against accidental longitudinal movement by said bolts. With this construction it is evident that the guides may be adjusted at either or both ends to compensate for any and all wear of the parts, and thus caused to maintain an easy and snug bearing with the hammer-head throughout the entire stroke of the latter.

It is evident that changes in the construction and relative arrangement of the several parts might be made without avoiding my invention, and hence I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described; but,

Having 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, a hammer-head and side guides mounted in the frame, of wedge-blocks forming seats for the side guides, a threaded bolt passing through each wedge-block and mounted at its ends in the frame and bolts engaging the guides, passing through elongated slots in the wedge-blocks and secured to the frames.

2. In a power-hammer, the combination with a frame, a hammer-head, side guides for the latter and wedge-blocks forming seats for said guides, of bolts engaging the guides and passing through the wedge-blocks and frame and secured to the latter.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CLARENCE L. TAYLOR.

Witnesses:
A. L. ROBERTS,
N. C. FETTERS.