

H. C. THOMPSON.
RIVET HOLDER.

APPLICATION FILED DEC. 1, 1910.

1,007,821.

Patented Nov. 7, 1911.

2 SHEETS-SHEET 1.

Fig. 1

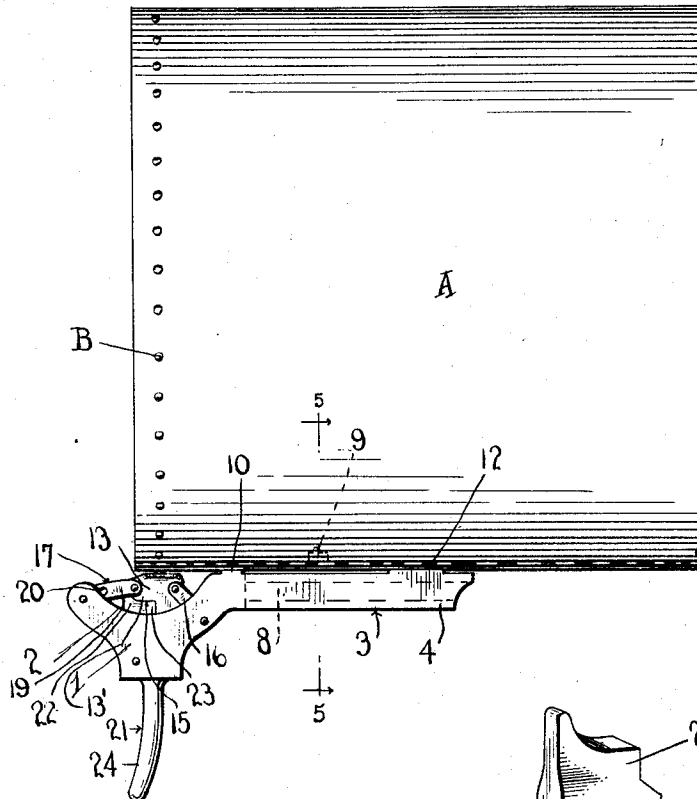


Fig. 2

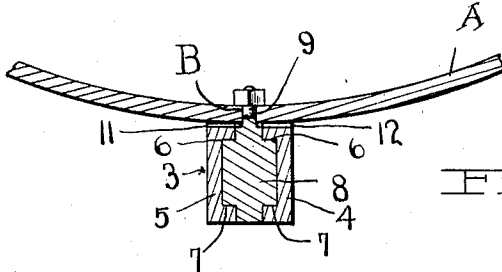
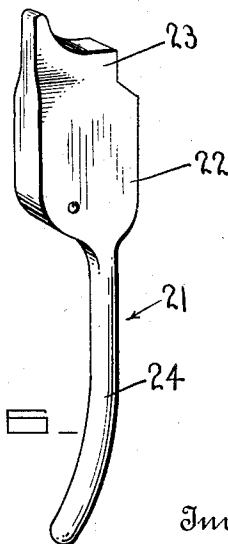


Fig. 3



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2 SHEETS—SHEET 2.

Fig. 2

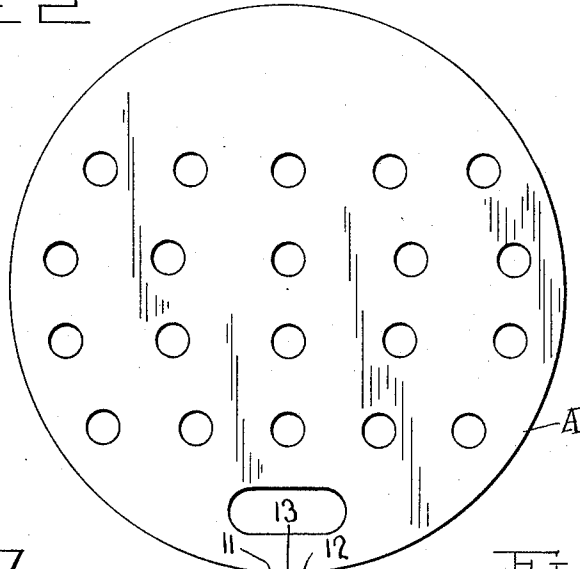


Fig. 7

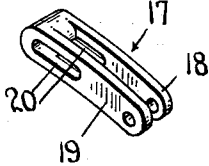


Fig. 8

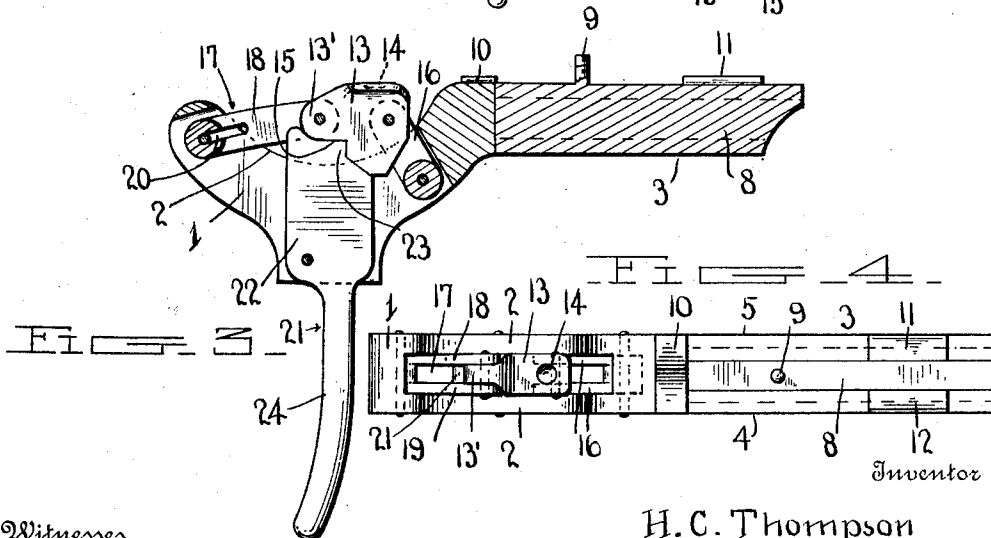
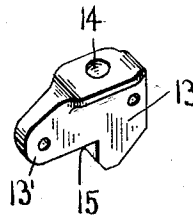
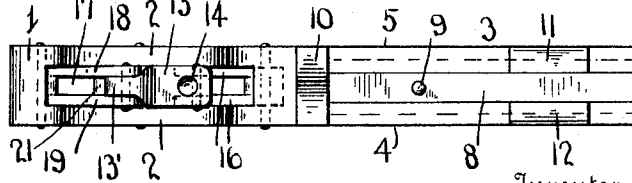


Fig. 3

Fig. 4



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UNITED STATES PATENT OFFICE.

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RIVET-HOLDER.

1,007,821.

Specification of Letters Patent.

Patented Nov. 7, 1911.

Application filed December 1, 1910. Serial No. 595,106.

To all whom it may concern:

Be it known that I, HENRY C. THOMPSON, a citizen of the United States, residing at Mobile, in the county of Mobile and State of Alabama, have invented certain new and useful Improvements in Rivet-Holders; and I do 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.

This invention relates to an improved rivet holder for use in riveting boilers.

The principal object of the invention is to provide a tool of this character so constructed as to tightly hold a rivet in operative position ready for upsetting and having more force and less weight than a hammer.

Another object is to provide a tool of this character constructed to be adjustably mounted on the boiler or other article to be riveted.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 represents a side elevation of one end of a boiler with this improved rivet holder applied; Fig. 2 is an end elevation thereof; Fig. 3 is a longitudinal section of the tool; Fig. 4 is a top plan view thereof; Fig. 5 is a transverse section taken on the line 5—5 of Fig. 1; Fig. 6 is a perspective view of the locking lever detached; Fig. 7 is a similar view of one of the bracing links for the rivet engaging member; Fig. 8 is a similar view of the rivet engaging member detached.

In the embodiment illustrated, this holder is shown constructed with a hollow head 1 having a curved recess 2 in its upper face to afford access to the movable members mounted in said head and hereinafter to be described. An attaching member 3 extends laterally from the rear end of the head 1 and preferably comprises two laterally spaced arms or bars 4 and 5 having vertically spaced shoulders 6 and 7 on their inner faces to form guides for slidably engaging an extension member 8 which is adapted to be removably secured to a boiler preferably by means of a bolt 9 which passes through one of the rivet apertures B in the boiler A as shown in Figs. 1 and 5.

A spacing block 10 is arranged transversely of the front end on the upper face of the attaching member 3 with its upper face curved to fit closely against the outer face of the boiler to which it is to be applied and is designed to hold the upper faces of the member 8 and the front ends of the arms 4 and 5 spaced sufficiently from the boiler to permit the tool to be moved without binding on the boiler. Two longitudinally arranged spacing strips 11 and 12 are secured to the upper faces of the arms 4 and 5 preferably near their rear ends. The upper faces of these strips 11 and 12 are inclined transversely downwardly and inwardly toward each other and are designed to closely hug the boiler A on opposite sides of the rivet apertures to hold the tool against accidental lateral movement and also to space the rear ends of the upper faces of the bars 4 and 5 from the boiler.

The rivet holding mechanism mounted in the head 1 consists of a block 13 preferably constructed as shown in Figs. 3 and 8 having a rivet seat 14 in its upper face and an angular notch 15 in its lower face for a purpose to be described.

A brace link 16 is pivoted at one end within said head at its rear end and the other end of said link is bifurcated and engaged with the opposite sides of the rear upper corner of the block 13 to which it is pivotally connected as shown in Fig. 3.

A link 17 is preferably constructed as shown in Fig. 7 of two laterally spaced arms 18 and 19 connected at one end and provided with longitudinally extending registering slots as 20 near their rear ends. The free ends of these arms 18 and 19 are designed to embrace an apertured ear 13' of the rivet block 13 and are pivotally connected therewith to provide for the movement of said block into operative and inoperative positions.

A locking lever 21, preferably constructed as shown in Figs. 3 and 6, with a head 22 having a lug 23 for engagement with the notch 15 of the block 13, is fulcrumed in the lower end of the head 1 and is provided with an operating handle 24.

In the use of this improved tool the sliding member 8 is connected with the boiler by passing the bolt 9 thereof through one of the rivet apertures in the boiler as shown in Fig. 1, and clamping it in adjusted position by a suitable nut. The head 1 is then moved

forwardly in position to support the head of the rivet to be upset, said rivet having been first heated red hot and placed on the seat 14 on the block 13, and said block 13 is moved upwardly to bring the rivet in position to pass through the aperture into which it is to be inserted. The lever 21 is then moved into position to bring the head 22 thereof into engagement with the recess 15 in the block 13 to lock said block in operative position and to receive the strain exerted by upsetting the end of the rivet within the boiler.

The handle 24 of the lever is then moved rearwardly to withdraw the rivet engaging member 13 and bring it into position ready to receive another rivet which is inserted in a manner similar to that above described.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

I claim as my invention:

1. A rivet holding tool comprising a supporting structure having an extensible attaching member, means for connecting said member to a boiler, a pivoted rivet engaging member mounted on said structure, and means for locking the said rivet engaging member in operative position.

2. A rivet holding tool comprising a supporting structure having an extensible attaching member, means for connecting said member to a boiler, a pivot rivet engaging member mounted on said structure, and a lever fulcrumed on said structure and having means for engaging said rivet engaging member to lock it in operative position.

3. A rivet holding tool comprising a hol-

low head having links pivoted at one end at opposite ends of said head, a rivet engaging member pivotally connected with the other ends of said links and having a recess in its lower face, a locking member fulcrumed in said head and having a lug for engagement with the recess in said rivet engaging member, and means for adjustably connecting said head to a boiler.

4. A rivet holding tool comprising a hollow head having links pivoted at one end at opposite ends of said head, a rivet engaging member pivotally connected with the other ends of said links and having a recess in its lower face, a locking member fulcrumed in said head and having a lug for engagement with the recess in said rivet engaging member, laterally spaced arms connected at one end with said head, an extension member slidably engaged with said arms and having means for connection with a boiler.

5. A rivet holding tool comprising a hollow head having links pivoted at one end at opposite ends of said head, a rivet engaging member pivotally connected with the other ends of said links and having a recess in its lower face, a locking member fulcrumed in said head and having a lug for engagement with the recess in said rivet engaging member, laterally spaced arms connected at one end with said head, an extension member slidably engaged with said arms and having means for connection with a boiler, means for holding said arms against lateral movement relatively to the boiler, and spacing members arranged on said arms and having their upper faces inclined to engage the curved boiler surface.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY C. THOMPSON.

Witnesses:

E. T. BELSAW,
C. W. ALLEN.