

(No Model.)

W. H. WALKER.

ATTACHING TERRETS TO HAMES.

No. 384,406.

Patented June 12, 1888.

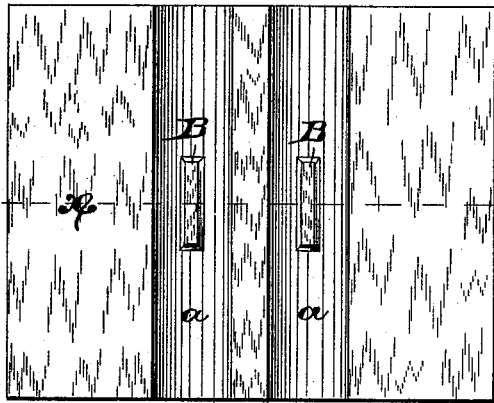


Fig. 1.

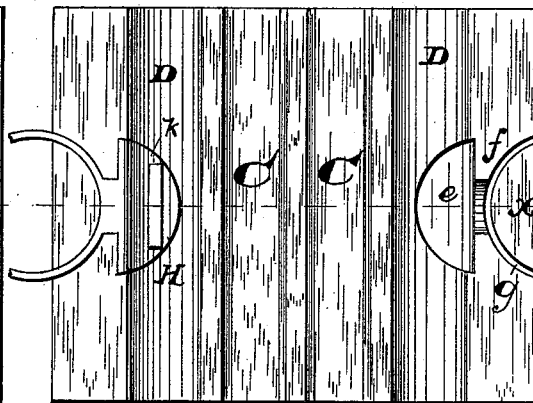


Fig. 2.

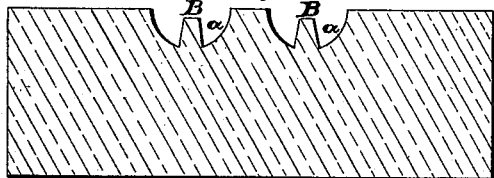


Fig. 3.

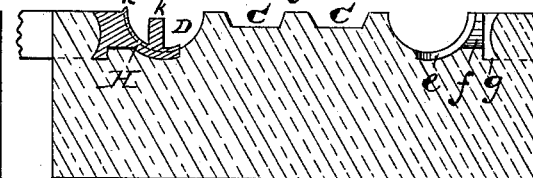


Fig. 4.

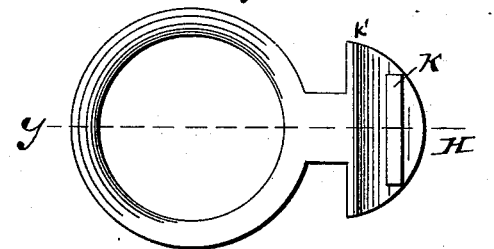


Fig. 5.

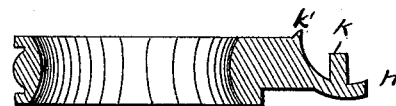


Fig. 6.

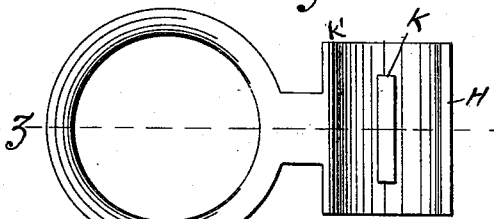


Fig. 7.

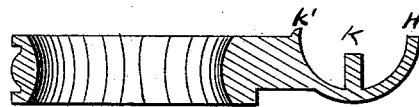


Fig. 8.

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# UNITED STATES PATENT OFFICE.

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## ATTACHING TERRETS TO HAMES.

SPECIFICATION forming part of Letters Patent No. 384,406, dated June 12, 1888.

Application filed March 30, 1888. Serial No. 263,944. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. WALKER, a citizen of the United States, residing at Milford, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Attaching Terrets to Hames; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In the drawings, Figures 1 and 2 represent, respectively, a plan view of a top and bottom die employed in my improved method of securing draft-eyes, terrets, or loops to hame-bodies. Figs. 3 and 4 are sectional views taken through line X of Figs. 1 and 2. Figs. 5 and 7 are respectively plans of a terret detached or separate from the hames; and Figs. 6 and 8 are sectional views taken through lines Y and 2 of Figs. 5 and 7.

Similar letters of reference indicate like parts in each of the several figures where they occur.

My invention has reference to the method of securing draft-eyes, terrets, or loops to hame-bodies; and it consists in the novel and peculiar process of preparing the hame-bodies for the reception of the terrets or loops and attaching the terrets or loops to the hame-bodies, whereby increased strength and durability are obtained, as compared with the former methods used, and at the same time greater economy in the cost of manufacture is obtained.

Referring to said drawings, A A, Figs. 1 and 3, represent cavities in the top die, corresponding in cross-sections with the rounded side of the hame-body, and B central projections extending upward and flush, or nearly so, with the face of the die.

C C, Figs. 2 and 4, represent slight cavities extending across the face of a bottom die, and D D in the same figures represent cavities extending across the face of said die, corresponding in shape in cross-sections to the rounded side of the hame-body. *e, f, and g*, same figures, represent cavities or recesses correspond-

ing in shape with and adapted to receive terret-rings and shanks or flanges, as will be hereinafter shown and explained.

The terret-rings, as represented in Figs. 5, 6, 7, and 8, are provided with shanks or flanges, a portion of which, H, is elongated and curved on the inside to correspond with the convex portions of the hame-body, and also provided with tenons K, and a spur, K', as plainly indicated in said Figs. 5, 6, 7, and 8.

My process or method of preparing the hame-body to receive the draft-eye, terrets, or loops, and of securing the same thereto, is as follows: I first heat to a red heat that portion of the hame-body to which the draft-eye, terret, or loop is to be secured, and then place this in the recess or cavity C C, Fig. 2, flat side down. The upper die, Fig. 1, is then brought down thereupon, and apertures or cavities are punched therein by means of the projections B B in the top die. The top die is then raised or removed and the terret or loop rings inserted in the cavities *e, f, and g*, as indicated in Figs. 2 and 4, and the hame-body referred to is laid in the cavities D D, convex side down, when the top die is again brought down thereupon, which operation forces the tenons K into the cavities formed in the hame-body, as above described, and the spur K' is bent over and driven into the heated body by the force of the die, thus firmly clinching and riveting the same therein, as will be understood.

The elongated portion of the shank or flange of the terret may be at the same time slightly embedded in the hame-body, thereby making the union of the parts still more secure. For this purpose the cavities or recesses *e* should be somewhat less in depth than the thickness of the elongated portion *h* of the shank or flange, so that said portion will project slightly above the surface of the cavity in which the hame-body lies.

By my improved process of securing draft-eyes, terrets, or loops to hame-bodies the ordinary and expensive methods of riveting or brazing by hand are avoided.

I prefer to perform the operation while the hame-body is heated, as I have above described, because, when the metal cools, the shrinkage

or contraction of the metal tends to hold the elongated part of the terrets or loops more securely and firmly to the hame-body.

I have described and shown herein top and bottom dies, as I prefer them, but other dies or means can be used.

In my process the shank or flange of the draft-eye, terret, or loop is constructed with a long tenon, which serves as a rivet when joined to the hame-body, and of itself keeps the draft-eye, terret, or loop firmly secured thereto, and thus obviates the necessity of welding.

What I claim as new, and desire to secure by Letters Patent, is—

The process of securing draft-eyes, terrets, or loops to hame-bodies, herein described,

which consists, first, in punching, by means of dies, holes, or apertures in the hame-bodies when heated; second, inserting the tenon of a draft-eye, terret, or loop into said aperture while the hame-body is hot, and, third, securing the said draft-eye, terret, or loop to the hame-body by means of shaping-dies under pressure, as set forth, thus unifying and at the same operation shaping them when united, all substantially as herein described.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of February, 1888.

WILLIAM H. WALKER.

Witnesses:

JOHN W. FOWLER,  
NATHAN G. POND.