

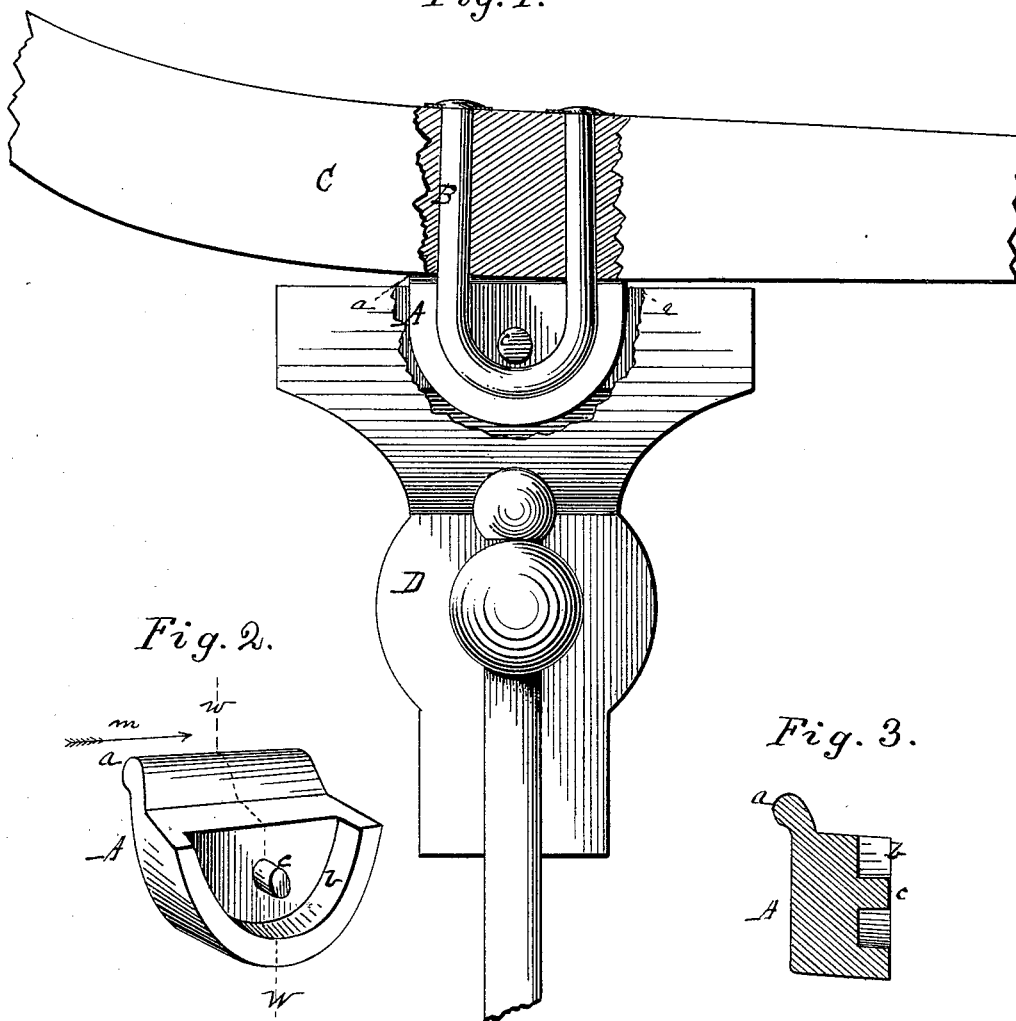
(No Model.)

W. G. BUNKER.  
HARNESS MAKER'S TOOL.

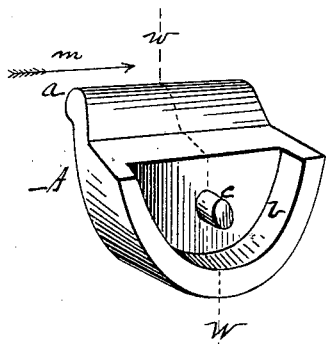
No. 386,801.

Patented July 31, 1888.

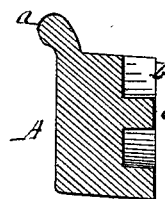
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

*Thos. Houghton.*  
*And N. Voorhees,*

Inventor:

*William G. Bunker*  
*by Henry B. Munn*  
*his atty -*

# UNITED STATES PATENT OFFICE.

WILLIAM G. BUNKER, OF PORTAGE, WISCONSIN.

## HARNESS-MAKER'S TOOL.

SPECIFICATION forming part of Letters Patent No. 386,801, dated July 31, 1888.

Application filed December 30, 1887. Serial No. 259,402. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM G. BUNKER, a citizen of the United States, residing at Portage, in the county of Columbia and State of Wisconsin, have invented certain new and useful Improvements in Harness-Makers' Tools; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

As is well known, the staples in the hames of heavy team-harness are frequently broken, when the harness is taken to the harness-maker for the attachment of new ones.

Heretofore in securing a new staple to the hame it has been customary to place the head of the staple in a vise with the legs projecting upward, then to pass these legs through the hame and rivet their ends. In doing this I have found it difficult to hold the staple immovably in the jaws of the vise, as in the process of riveting it would be driven down between them and would then have to be readjusted before the work could be completed.

The object of my invention is to produce a tool for harness-makers which will support the staple in the jaws of the vise firmly and immovably during the process of securing it to the hame.

In the drawings, Figure 1 is a side elevation with a portion of the hame and a portion of one of the jaws of the vise broken away, showing the tool, staple, and hame in position in the vise. Fig. 2 is a perspective view of the tool, and Fig. 3 a vertical section of the same through line *ww* of Fig. 2.

In the figures, A represents the tool; B, a hame-staple; C, the hame, and D the vise.

The tool A is made of iron or other suitable metal, cast in one piece, and in the form clearly

shown in Figs. 1 and 2. Its back side is flat, with a strong shoulder, *a*, projecting from its upper end, as shown in the same figures. Its front side is provided with a semicircular recess, *b*, in which there is a strong pin, *c*, arranged as shown. This recess is open at the top, its semicircular portion being arranged as shown. The portion of the tool in which the upper end of the recess terminates is flat, forming an even bearing-surface in front of the shoulder *a*. In using this tool it is placed between the jaws of a vise, D, with its shoulder *a* resting upon the inner jaw. The staple B is then placed in the recess of the tool, with its head or curved end resting upon the semicircular recess, and with the pin *c* projecting through it, as shown in Fig. 1. The face of the pin *c* is in the same plane with the face of the tool. The jaws of the vise are then closed tightly together and the legs of the staple are passed through the holes in the hame C provided for that purpose, all as clearly shown in Fig. 1. The ends of the legs of the staple can now be riveted down upon the hame without driving the staple down between the jaws of the vise, since the shoulder *a* of the tool, resting upon the inner jaw of the vise, furnishes an immovable support and its semicircular recess an even bearing-surface.

Having thus described my invention, what I claim is—

A harness-maker's tool made of one piece of solid metal provided with a shoulder on its rear side and a semicircular recess on its front side, with pin *c* therein for supporting a hame-staple in the jaws of a vise in the process of riveting the staple to the hame, as set forth.

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

WILLIAM G. BUNKER.

Witnesses:

J. W. CHANCELLOR,  
J. E. JONES.