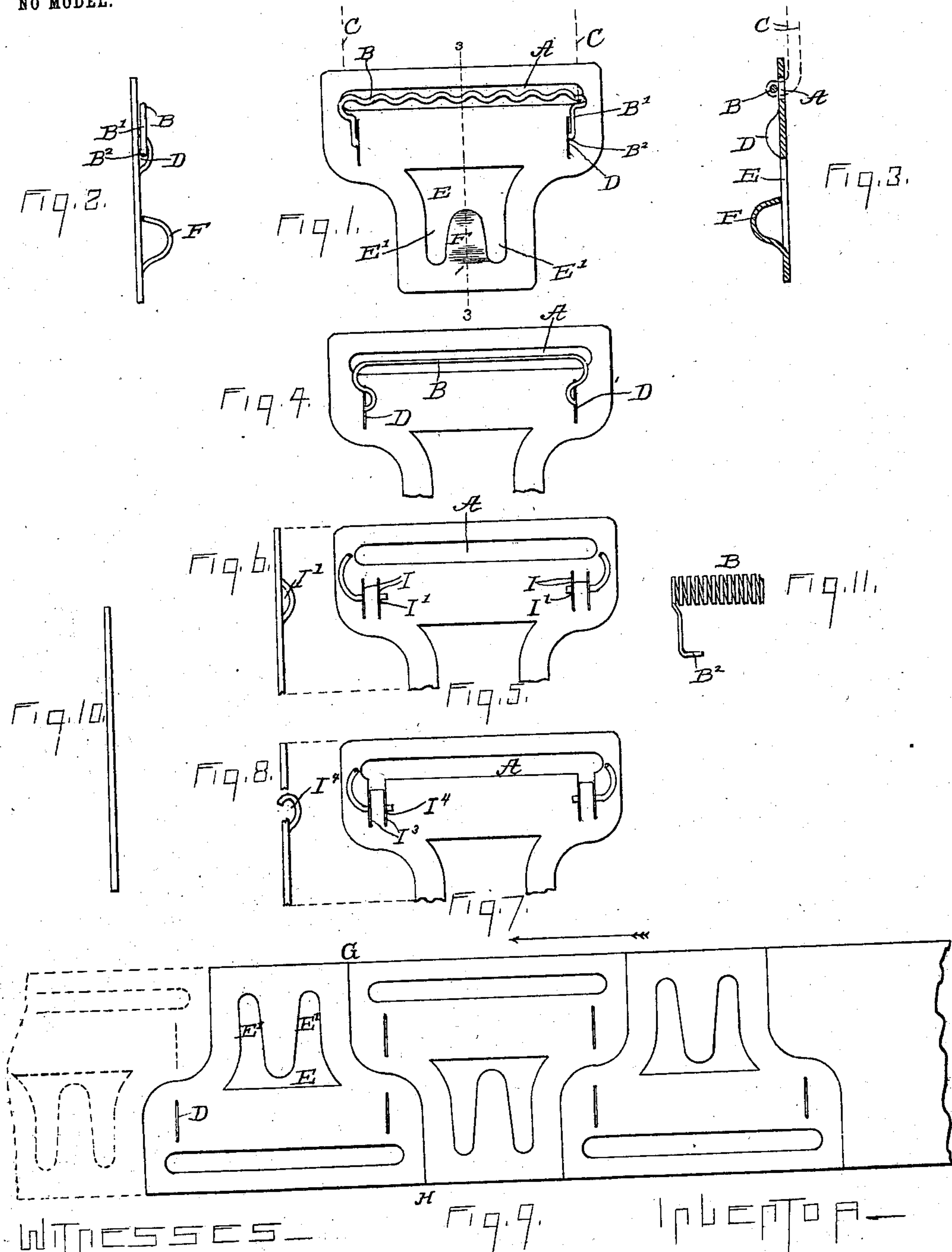


No. 726,763.

PATENTED APR. 28, 1903.

J. B. ROBINSON.  
BAND HOOK AND BLANK THEREFOR.  
APPLICATION FILED JUNE 21, 1902.

NO MODEL.



WITNESSES—

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# UNITED STATES PATENT OFFICE.

JAMES B. ROBINSON, OF CHATTANOOGA, TENNESSEE.

## BAND-HOOK AND BLANK THEREFOR.

SPECIFICATION forming part of Letters Patent No. 726,763, dated April 28, 1903.

Application filed June 21, 1902. Serial No. 112,629. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES B. ROBINSON, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and useful Improvement in Band-Hooks and Blanks Therefor, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates particularly to back-band hooks for harness. The hook is, however, applicable to bands desired for other uses.

The object of the invention is to produce an efficient hook at small expense.

A further object of the invention is to produce a hook which is of light weight.

A further object of the invention is to produce a hook which shall effectively protect the horse's side from the trace-chain.

A further object of the invention is to provide a simple means for effectively joining the hook to the band.

A further object of the invention is to so form the hook as to permit its manufacture from sheet-metal blanks with a minimum of waste of metal and with a minimum of steps in the operation.

In the accompanying drawings, Figure 1 is a front elevation of a hook embodying portions of my improvement. Fig. 2 is an elevation of the form shown in Fig. 1 looking toward the right. Fig. 3 is a section on the line 3-3 of Fig. 1 looking toward the left. Fig. 4 is a modification of the tongue for attaching the band. Fig. 5 is a front elevation of another modification. Fig. 6 is an end elevation of Fig. 5. Fig. 7 is a front elevation of a modification. Fig. 8 is a sectional end elevation of the form shown in Fig. 7. Fig. 9 illustrates a blank strip of metal from which blanks for the hook are cut. Fig. 10 is a view looking edgewise at one of the hook-blanks. Fig. 11 illustrates a modification of the tongue.

Referring first to Figs. 1, 2, and 3, A is a longitudinal slot through which the folded band extends from the rear. B is a tongue arranged parallel to and in front of said slot and extending through the fold of the band. The band is shown by the dotted lines designated by the letter C. The tongue is ar-

ranged to move toward and from said slot A. In the form shown by Figs. 1, 2, and 3 the tongue is secured in bearings D, formed in the body of the hook below each end of the slot A. Said bearings are formed by vertically slitting the plate which forms the body of the hook, then stamping the metal upward at the side of each slit, which is directed toward the middle of the plate. This construction leaves the rear face of the hook without rearward projection. The tongue has at each end an arm B', extending downward to said bearing D. Thence an arm B<sup>2</sup> extends at right angles to the arm B' into the bearing D. Said arms B<sup>2</sup> serve as journals in the bearings for the movement of the tongue B. In the form shown said tongue is made of wire, and the portion extending across the slot A is crimped, so as to enlarge its bearing within the fold of the band, whereby said fold is expanded to greater thickness than the width of said slot to the end that the exterior faces of the band may be drawn against the metal at each side of the slot A, whereby the band is prevented from passing through said slot. E is an opening in which stands the hook proper, F. This opening has at each side of the hook proper a downward extension E' of sufficient width to permit the insertion of a ring or link or similar device with which engagement is made. The hook F is bent forward and then upward and rearward, as clearly shown by Figs. 2 and 3, so that a ring, link, or similar device with which said hook makes engagement may lie within said hook in front of the plate.

The hook illustrated by Figs. 1, 2, and 3 is made from a blank plate, which plate is cut from the blank sheet illustrated by Fig. 9. Said sheet of metal has parallel edges and is as wide as the depth of the hook. The upper and lower portions of the hook are so shaped that the blank hooks may be successively cut from the metal strip without waste. This is accomplished by so shaping the lateral edges of the hook as that meeting edges of two relatively inverted hooks will at all points touch the same line G H. The blank hooks can be readily cut in a die adapted to cut on the lines forming the boundary of the opening E, the slits D, the slot A, and the separating-line G H. When only one such die is



used, the metal strip is to be reversed between cuts. The raising of the metal to form the hook proper and at the sides of the slits D may be accomplished in conjunction with the cutting or as a separate operation. It will be observed that this may be done by stamping.

In Fig. 4 the metal between the slit D and the adjacent vertical edge of the plate is raised, and the arms forming the journals for the tongue enter said slits or bearings from the direction of the middle of the plate. In Figs. 5 and 6 vertical slits I stand parallel to each other, and the metal between said slits is raised to form the bearing I'. In Figs. 7 and 8 two parallel vertical slits I<sup>3</sup> extend from the slot A downward, and the strip of metal between said slits is bent or rolled to form a bearing I<sup>4</sup>. It will be observed that these several forms of bearing for the tongue-arms are adapted to construction through the forming of blanks, as already described.

Obviously further modifications regarding the attachment may be made without departing from the spirit of my invention.

The portion of the tongue extending across the slot A may obviously be varied in form; but for the sake of economy I prefer to use some form which permits the use of wire. As already stated, the form illustrated by Figs. 1, 2, and 3 is made by crimping wire. Fig. 11 shows one-half of such a tongue, having the portion which is to extend across the slot A coiled into a spiral of proper diameter. It will be observed that when the tongue is of proper thickness, so that the aggregate thickness of the tongue and the fold of the band at the front of the slot A is more than the width of said slot, said tongue acts as a key and does not require great strength, for the exterior of the band binds against the metal at each side of the slot A. A tongue formed as illustrated by Fig. 11 may be made from wire, which would be too weak if the tongue extended lengthwise across the slot A with support at only the ends.

I claim as my invention—

1. As an article of manufacture, a band-hook formed of sheet metal and having at its lower portion a hook proper adapted to carry a trace, a slot, A, and bearings, D, formed by slitting and raising the metal adjacent to the ends of the slot, A, a tongue extending lengthwise across the slot, A, and having arms journaled in said bearings, substantially as described.

2. As an article of manufacture, a band-hook formed of sheet metal and having a hook proper, a slot, A, and bearings, D, formed by slitting and raising the metal adjacent to the ends of the slot, A, a tongue extending lengthwise across said slot, A, and having arms journaled in said bearings, substantially as described.

3. A band-hook blank consisting of a flat plate of sheet metal having in its upper portion the horizontal slot, A, vertical slits for the forming of bearings and an opening, E, having downward extensions, E', substantially as described.

4. A band-hook blank consisting of a flat plate of sheet metal having the slot, A, slits for the forming of bearings and an opening, E, having extensions, E', and having its lateral edges so formed that when two such blanks are relatively inverted, their adjacent edges may touch on a line, G H, while the alternate end edges are in line with each other, substantially as described.

5. In a band-hook, the combination with a plate having the slot, A, and bearings near said slot, of a wire tongue having at each end a journal and having the portion extending across the slot, A, broadened by lateral bending, substantially as described.

In testimony whereof I have signed my name, in presence of two witnesses, this 19th day of June, in the year 1902.

JAMES B. ROBINSON.

Witnesses:

GEO. T. WHITE,  
S. B. SMITH.