W. E. AMBERG.

FENCE WIRE FASTENING DEVICE.

APPLICATION FILED SEPT. 8, 1916.

1,286,488. Patented Dec. 3, 1918.

Fig. 1.

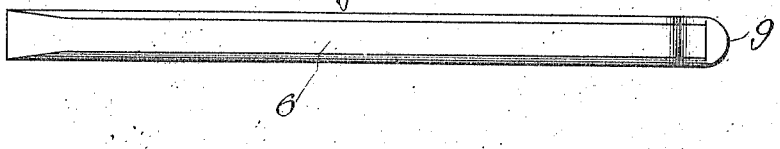


Fig. 2.

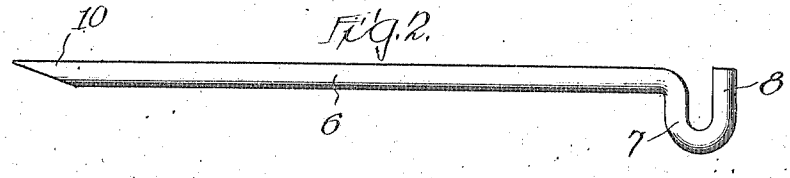
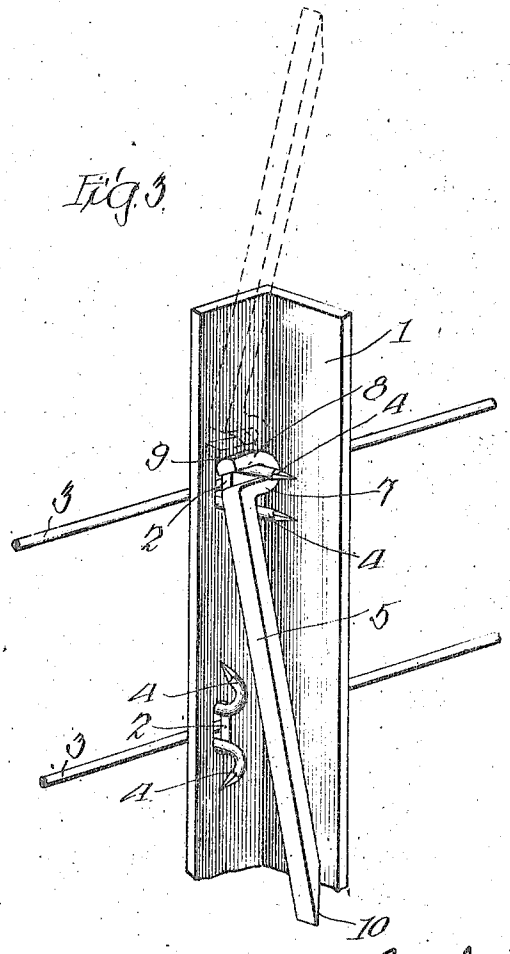


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

WALTER E. AMBERG, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CHICAGO STEEL POST CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FENCE-WIRE-FASTENING DEVICE.

1,286,488. Specification of Letters Patent. Patented Dec. 3, 1918.

Application filed September 8, 1916. Serial No. 118,984.

To all whom it may concern:

Be it known that I, WALTER E. AMBERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fence-Wire-Fastening Devices, of which the following is a specification.

This invention relates to devices for fastening fencing to its support and is especially adapted for use in connection with metal posts. The invention is exemplified by the combination and arrangement of parts shown in the accompanying drawing and described in the following specification, and it is more particularly pointed out in the appended claims.

In the drawing—

Figure 1 is a plan view of a tool embodying the present invention;

Fig. 2 is a side elevation of the tool shown in Fig. 1, and

Fig. 3 is a fragmentary perspective view of a portion of a metal fence post and wires connected therewith showing the present invention applied thereto, and indicating the method by which the invention is applied.

In modern fence building the metal post usually made of steel angle bars has so many advantages over the old wooden post that it is rapidly growing in popularity. A great deal of difficulty has been experienced however, in providing a device for fastening the fence wires to the new metal post. A fastening device for this purpose should be simple in construction and of small cost to manufacture and should also be easily applicable to the post and wire with which it is connected. It should also be absolutely sure in its holding qualities when once applied and not liable to injure animals or persons passing near the completed fence. The present invention is designed to meet all the requirements above.

In the drawing, the numeral 1 designates a fence post made of an angle bar of steel having a series of oblong openings 2 punched through one of its webs through which openings the fence wire fasteners pass. The numeral 3 designates the strands of wire which compose the fence to be secured to the post. These strands are secured to the post by wire staples of ordinary U-shape which straddle the strands 3 on one side of the post and have their shanks 4 projecting through the openings 2. The numeral 5 designates a tool by which the shanks are clenched in place in a peculiar manner to be described. The tool 5 comprises a bar or handle portion 6 which is bent at one end, as shown in Fig. 2, to form a U-shaped gripping portion 7. The gripping portion 7, as shown in this figure, is offset at one side of the handle 6 and the outer prong 8 of the U is rounded on its outer surface, as shown at 9 in Fig. 2. The end of the bar 6 opposite the U-shaped gripping portion 7 is wedge-shaped as indicated at 10 in Fig. 2.

For securing the fence in place according to the present invention, a staple of ordinary form is placed over one of the strands of the wire fence opposite an opening 2 in the post to which the fence is to be secured, the prongs 4 of the staple protruding through the openings 2 in the post. The gripping portion 7 of the tool 5 is placed over one of the prongs 4, as shown in Fig. 3, and the tool moved into the dotted position indicated in that figure. The curved portion 9 permits the tool to roll easily against the surface of the post into the position shown in broken lines in Fig. 3. This movement bends the prong 4 of the staple into the shape of an arc and brings the point of the prong against the surface of the post opposite that to which the wire is being secured. After one of the prongs has been bent in the manner described, the tool 5 is removed and applied to the second prong which is then bent in a similar manner in the opposite direction. In applying the tool to the staple prongs the best results are obtained if it is not held too close to the post at the beginning of the movement of the tool in order that the staple may not be drawn so tightly against the wire as to prevent free movement of the wire through the staple due to contraction and expansion. When both prongs of the staple have been bent the fastener will appear as indicated at the lower portion of Fig. 3. It will be noted that the sharp ends of the staple are both bent into contact with the surface of the post so that it is impossible for them to inflict injury on animals or persons. Where oblong openings are used, as indicated in this figure, the staple is prevented from rotating in the opening by the walls thereof. Where circular openings are employed the same result is secured by the fact that the staple is placed astride of the

fence wire. If the staple should rotate somewhat in its opening the ends of the prongs 4 will nevertheless continue to bear against the surface of the post and the function of the device will in no way be changed.

It is sometimes desirable to use staples which are somewhat wider than the openings in the post with which they coöperate. When this is done the points 4 of the staples are bent toward one another until they will pass through the openings in the fence post. In such case it may be necessary to open the prongs slightly after they have been passed through the posts before the gripping portion 7 of the tool 5 can be applied. When this is necessary the wedge portion 9 of the tool may be forced between the prongs of the staple to open them sufficiently to permit the application of the gripping portion 7. When this method of application is employed the portion of the staple which engages the wire being wider than the opening will prevent any possibility of the staple being drawn into the opening a sufficient amount to grip the wire to prevent free sliding movement. In this case the prongs may be bent over sufficiently to draw the enlarged bent portion of the staple tightly against the post.

I claim:

1. A fence wire stapling tool comprising a handle, and a staple engaging head at one end of said handle, said head having a slot therein arranged transversely of the direction of said handle, and open at the end thereof adjacent said handle and having also a convex bearing surface extending parallel with said slot at the side of said head opposite said handle.

2. A stapling tool for wire fences comprising a single integral flattened bar having one end thereof bent to form a U-shaped staple engaging head offset at one side of said bar and having a gripping slot formed by the legs of said U extending at right angles to the main portion of said bar, said slot being open at the end thereof adjacent said bar and the outer leg of said U-shaped head being rounded to form a convex surface upon which said tool may be rotated to bend the prongs of the staple into holding position.

3. A stapling tool for wire fences comprising an elongated bar having one end thereof bent to form a U-shaped staple-engaging head offset at one side of said bar and having a gripping slot formed by the legs of said U extending transversely to the main portion of said bar, said slot being open at the end thereof adjacent said bar and the outer leg of said U-shaped head being rounded to form a convex bearing surface upon which said tool may be rotated to bend the prongs of the staple into holding position, said leg being of substantially uniform cross-section throughout and having the free end thereof terminating substantially in alinement with the face of the main portion of said bar on the side opposite said head.

4. A fence wire stapling tool comprising an elongated bar arranged to form a handle portion and having the end thereof bent to form a U-shaped staple-engaging head offset at one side of said bar and having the free leg of the U provided with a convex bearing surface to form a fulcrum member for said tool during said stapling operation, said leg being of substantially uniform cross-section throughout and substantially the same length as the opposite leg of the U, said head being arranged to form a staple-engaging slot extending transversely to the handle portion of said bar, the walls of said slot being flat and having angular edges for gripping the prongs of the staple to be bent.

5. A tool for clenching wire staples comprising a handle and a pair of rigidly fixed gripping jaws secured to said handle at one end thereof, said jaws having flat opposing faces lying in substantially parallel planes perpendicular to said handle and spaced apart to receive the shank of a staple therebetween, the width of said jaw faces being approximately twice as great as the width of the slot formed between them so that a staple shank will be grasped by diagonally opposite edges of said jaws when said handle is moved to tilt said jaws relatively to said shank, the slot between said jaws being open at one end thereof to permit engagement and disengagement of said tool with the staple shank, and the outer jaw having the face thereof opposite said staple receiving slot rounded to form a rolling fulcrum at substantially right angles to the handle about which said handle is tilted in bending a staple shank.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 23d day of August, A. D. 1916.

WALTER E. AMBERG.

Witnesses:

GERTRUDE M. BARNES,

A. J. CRANE.