

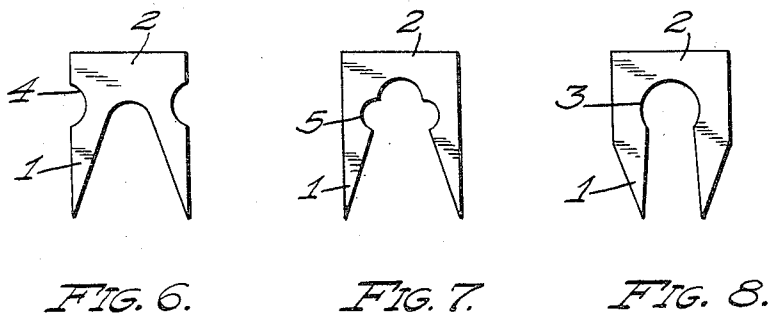
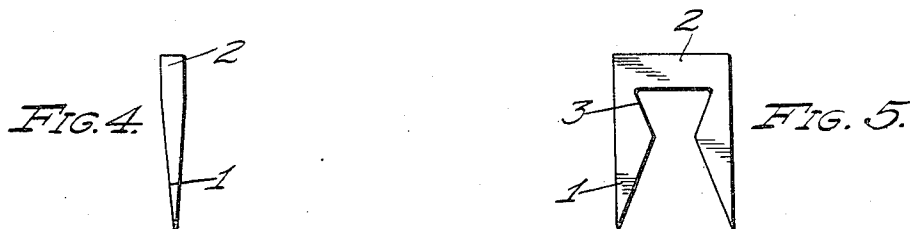
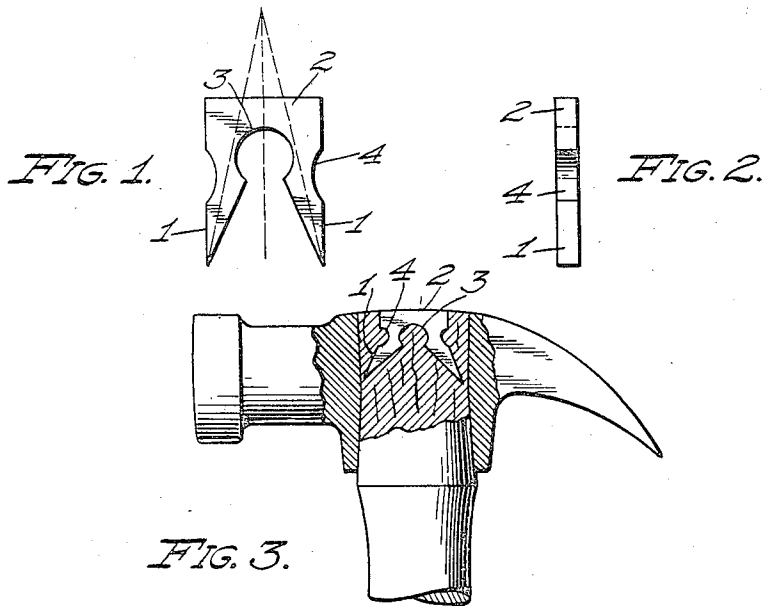
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HANDLE WEDGE

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HANDLE WEDGE

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1 Claim. (Cl. 306—33)

My invention relates to wedges or devices for retaining in place the handles of hammers, hatchets axes, and the like, and in general to devices for performing similar functions.

5 The objects of this invention are:

First, to provide a device of this class which may be easily driven into the ends of handles, or into other members, which will effectively spread the end of the handle or other member 10 into which it is driven for locking the handle into the designated place, or performing other similar functions, and which will be so securely driven into place that it cannot be removed without uselessly distorting the device or destroying 15 or materially damaging the handle or other member into which it is driven;

Second, to provide a device of this class which is particularly simple and economical of construction, and durable;

20 Third, to provide a device of this class which is so constructed that the separating or wedge portion at the inner end is distorted laterally relative to the outer or head end, thus necessitating re-distortion to remove the device from, 25 or destroying or materially damaging the handle or other member into which it is driven;

Fourth, to provide a device of this class which is made substantially staple-like and in which the legs are substantially wedge-like, so that 30 the device may be easily driven into a handle or other member, for spreading the latter, and locking or anchoring itself securely therein; and,

Fifth, to provide a device of this class whereby the wood or other material of the handle or 35 other member is forced into recesses of the device, when the device is driven into the handle or other member, thereby forcibly and permanently distorting the wood or other material and thereby preventing removal of the device.

40 With these and other objects in view, as will appear hereinafter, I have devised a handle wedge or similar device having certain novel features of construction, combination and arrangement of parts and portions, as will be hereinafter described in detail and particularly set 45 forth in the appended claims, reference being had to the accompanying drawing and to the characters of reference thereon, which form a part of this application, in which:

50 Figure 1 is a side view of a handle wedge incorporating my invention; Fig. 2 is an end view thereof; Fig. 3 is a fragmentary side view of a hammer showing a portion of the hammer head and handle in section, and showing my handle 55 wedge driven into the hammer head end of the

handle and as the same might appear when spreading the end of the handle for receiving the handle in the hammer head and also for retaining the wedge in place; Fig. 4 is a slightly modified form, showing the opposite faces diverging from the point; and Figs. 5, 6, 7 and 8 are all side views showing modified forms of construction of my handle wedge embodying features and performing functions as will be hereinafter described.

Like characters of reference refer to similar parts and portions throughout the several views of the drawing.

It will be noted that all of the devices shown in Figs. 1, 3, 5, 6, 7 and 8 of the drawing are staple-like comprising a pair of legs 1 and a connecting or head portion 2. Each of the legs 1 are pointed or substantially sharp at their ends, and are wedge-shaped in their longitudinal extent. The wedge or the inclination of the adjacent sides of the wedge is material so that the wood or the material of the handle or other member is displaced to the extent that the handle or other member is spread laterally. It will be also noted that the axes of the wedge-shaped legs are also inclined at an angle to the general axis of the device, that is, the axis of each leg makes an acute angle with the longitudinal axis of the head portion 2, as indicated in dotted lines in Fig. 1. Thus the legs are spread laterally with respect to each other and bent angularly with respect to the head portion 2. This construction is carried out in the devices shown in Figs. 1, 5, 6 and 7, whereas in the structure shown in Fig. 8, the axes of the wedge-shaped legs are inclined at the opposite angle. In the latter structure the legs are adapted to be contracted toward each other.

Between and at the inner end of the legs or at the inner end of the inwardly converging cut-out formed by the legs, is provided an enlargement 3 which is of greater lateral extent than the distance between the inner ends of the legs. This enlargement may be round, as shown in Fig. 1, or rectangular, as shown in Fig. 5, or of any other shape desired.

This enlargement performs two functions, namely: first, that of reducing the lateral dimension or of weakening the inner ends of the legs so that they may be more readily distorted angularly or laterally; second, that of receiving a portion of the wood or material of the handle or other member when the wedge is driven thereinto in order to prevent the wedge from being

withdrawn. It will be noted that as the wedge is driven into the wood or other material and the portion of the wedge forming the inner portion of the enlargement 3 engages and compresses the wood or other material, the latter is forced into the lateral portions of the enlargement or recess, as shown in Fig. 3. These portions of the wedge form barbs to aid in the prevention of withdrawal of the wedge.

At the lateral edges of the wedge are provided recesses 4 which are positioned at the opposite sides of the wedge and substantially at the inner ends of the legs or inner end of the cut-out portion between the legs. These recesses 4 perform substantially the same function as the enlargement or recess 3, and may be used in place of the enlargement 3, as shown in the modification in Fig. 6, or the recesses 4 may be omitted if the recess or enlargement 3 is made sufficiently large.

In Fig. 7 is shown a modification having recesses 5, which are substantially the same as the recesses 4, but placed at the inner sides of the legs. The functions performed thereby are substantially the same as those performed by the recesses 4. In this instance the compression of the wood or other material by the inner side of the head portion forces the material into the recesses 5.

It will be noted that with this construction a wedge is formed which provides an expanding force at the end of the handle or other member in substantially all lateral directions, and from the above it will be clear that the wedge is so distorted and the material of the handle or other

member driven into the recesses that it is practically impossible to remove the wedge.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, and certain modifications thereof, and have designated certain uses or applications for the device, I do not wish to be limited to this particular construction, combination and arrangement, nor to the modifications, nor to the uses and applications referred to, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

In a handle wedge, the combination with a handle, of a staple-like member having a head and spaced legs extending from the head with the extended ends of the legs relatively sharp, the longitudinal axes of said legs being positioned at an acute angle with the longitudinal axis of the head, the cross-section of said legs being reduced at the ends adjacent the head for weakening the latter ends, so that, when the wedge is driven into said handle, said legs are progressively bent laterally with respect to said head, by the material of the handle adjacent the walls of the holes made by said legs, the reduced cross-section forming recesses and shoulders, respectively into and behind which handle portions, adjacent the legs and beyond said shoulders, are forced when the wedge is driven into the handle.

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