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VICE-HEAD.

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To all whom it may concern:

Be it known that I, WILLIAM E. CANEDY, a citizen of the United States, residing at Chicago Heights, in the county of Cook and State of Illinois, have invented a new and useful Vise-Head, of which the following is a specification.

This invention relates to vises and more particularly to an improved gripping head especially designed for attachment to the clamping jaws of an ordinary bench vise.

The object of the invention is to provide a vise-head which will effectually house and protect the active ends of the clamping jaws so that the latter may be used for holding either wooden or metal objects.

A further object is to provide a removable vise-head having oppositely disposed gripping faces one of which is formed with a roughened surface for engagement with metal objects while the other is provided with a smooth bearing surface to prevent scratching or otherwise marring wooden articles, said heads being reversible so that the same may be positioned on the clamping jaws of either gripping face for contact with the work.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency as well as to reduce the cost of manufacture.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a side elevation partly in section of a portion of a vise provided with a pair of reversible heads constructed in accordance with my invention. Fig. 2 is a perspective view of one of the heads detached and in reversed position. Fig. 3 is a similar view illustrating a modified form of the invention.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved vise head forming the subject matter of the present invention is principally designed for attachment to an ordinary bench vise and by way of illustration is shown in connection with a bench vise in

which 5 designates the stationary jaw, 6 the movable jaw and 7 the operating screw having the usual handle 8.

The free or active ends of the clamping jaws 5 and 6 are inclined or beveled in opposite directions, as indicated at 9 while the adjacent longitudinal faces of the jaws are formed with vertical recesses 10 in which are seated suitable wear plates 11.

The upper end of each wear plate is bent laterally to form an attaching spur 12 which is counter-sunk in the upper flat surface 13 of the adjacent jaw while the lower end of said plate is bent laterally to form a stop shoulder 14 for the purpose hereinafter referred to.

Slidably mounted on the active ends of the clamping jaws 5 and 6 are tubular vise heads 15 having their upper and lower edges inclined or beveled at 16 to correspond to the inclination of the upper ends 9 of the jaws and also provided with squared portions 17 adapted to register with the flat portions 13 of the jaws when the vise heads are in position on said jaws.

One face of each jaw is provided with a plurality of V shaped grooves 18 for the purpose of holding special tools or other objects while the opposite gripping face of the head is formed with a smooth unobstructed bearing surface 19 for contact with wooden objects when the vise heads are removed and placed in reversed position on the clamping jaws, there being one or more transverse grooves or depressions 20 formed in the vise head above the smooth surface 19 for the purpose of holding and gripping certain objects.

Cast, molded or otherwise formed integral with each vise head is a laterally extending shoulder 22 which forms a seat for a removable wear plate 23 the face of which is roughened or corrugated for engagement with metal or iron objects, said plate being detachably secured to the adjacent vise head in any suitable manner, as by screws or similar fastening devices 24.

The shoulders 14 serve to limit the longitudinal movement of the vise heads on the clamping jaws while the wear plates 10 prevent undue friction between said heads and jaws when positioning the heads on or removing the same from the clamping jaws.

In order to present the smooth bearing surface 9 to the work it is merely necessary

to detach the heads and place the same in reversed position on the clamping jaws, as will be readily understood.

In Fig. 3 of the drawings there is illustrated a modified form of the invention in which the vise-head is substantially rectangular in shape and provided with gripping faces similar in construction to the gripping faces shown in Fig. 2 of the drawings. In this form of the device the bearing plates 10 and stop shoulders 14 are dispensed with, the vise-head being locked in position on the clamping jaws by engagement with the adjacent end of the jaw.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed is:

1. A vise including co-acting clamping jaws having vertical recesses formed in their adjacent longitudinal faces, wear plates seated in said recesses and provided with laterally extending stop shoulders and vise heads slidably mounted on the clamping jaws at said wear plates and adapted to engage the shoulders.

2. A vise including co-acting clamping jaws, wear plates secured to the clamping jaws and provided with laterally extending stop shoulders, and tubular vise heads slidably mounted on the clamping jaws and adapted to engage the stop shoulders, said vise heads being provided with oppositely disposed gripping faces.

3. A vise including co-acting clamping jaws, tubular vise heads slidably mounted on the jaws and provided with oppositely disposed gripping faces one of which is formed with a lateral shoulder and the other with a smooth unobstructed bearing surface, and a detachable wear plate bearing against the

shoulder and provided with a roughened work-engaging surface.

4. A vise including co-acting clamping jaws having their upper ends inclined in opposite directions, reversible vise heads slidably mounted on the jaws and having their opposite ends inclined to correspond to the inclination of the clamping jaws, said vise heads being provided with oppositely disposed gripping faces.

5. A vise including co-acting clamping jaws having their active ends inclined or beveled in opposite directions and provided with terminal flat portions, wear plates secured to the jaws and each having one end thereof bent laterally and embedded in the flat portion of the clamping jaws and its opposite end terminating in a stop shoulder, and reversible vise heads slidably mounted on the clamping jaws and adapted to engage the stop shoulders, said clamping jaws having their opposite ends inclined to correspond to the inclination of the clamping jaws and provided with flattened portions adapted to register with the flattened ends of said jaws.

6. A vise including co-acting clamping jaws having their adjacent faces provided with vertically disposed recesses and their upper ends inclined or beveled in opposite directions, wear plates secured in said recesses and provided with laterally extending stop shoulders, and reversible tubular vise heads slidably mounted on the clamping jaws and adapted to engage the stop shoulders, said vise heads having their opposite ends inclined to conform to the inclined ends of the clamping jaws.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM E. CANEDY.

Witnesses:

W. H. DONOVAN,
N. J. S. ANGEAR.