Aug. 7, 1934. A. L. STOWELL 1,969,677

SAFETY HOLDER FOR TOOLS

Filed Dec. 22, 1930

Fig. 1

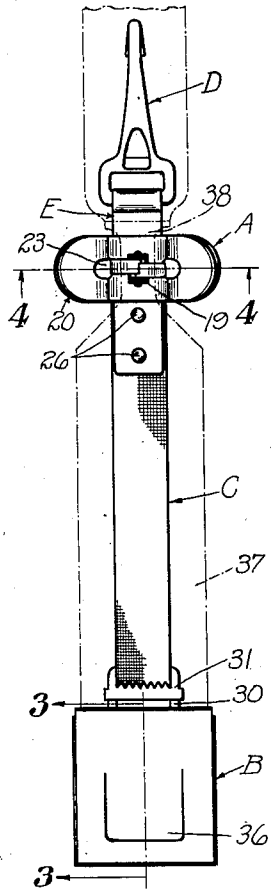


Fig. 2

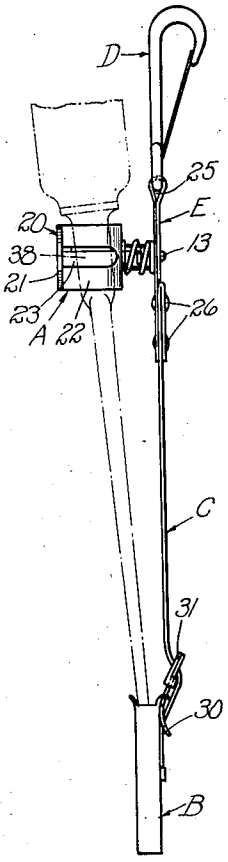


Fig. 4

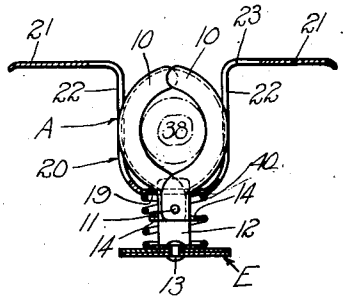


Fig. 5

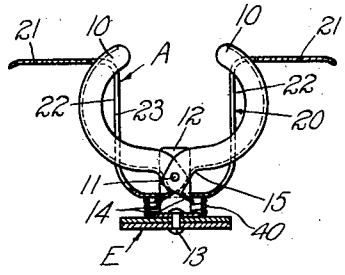


Fig. 3

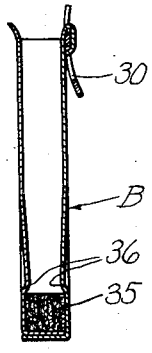
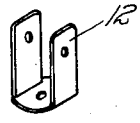


Fig. 6



Fig. 7



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SAFETY HOLDER FOR TOOLS

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Application December 22, 1930, Serial No. 504,026

5 Claims. (Cl. 24—3)

This invention relates generally to devices by means of which workmen may carry about their persons tools which they employ in their work. As an instance of a use to which the present invention may be applied, reference may be had to a holder for supporting hand carpenter tools, such as, for example, chisels. The improved holder of the present invention is peculiarly adaptable for use by workmen, such as telephone linemen, who find it necessary to move about considerably and to climb up and down in the performance of their duties. It is necessary that such workmen have their tools readily at hand; that the tools be so carried that there is no danger of them dropping and causing injury to others; and that the tools be easily and quickly available.

The aim of the present invention is to provide a tool holder or carrier of this sort which will safely support the tool, and which may be readily manipulated when it is desired to secure the tool thereto or remove it therefrom. The improved arrangement is such that the safety catch, which secures the tool to the holder, can be quickly and conveniently opened by the workman, but the catch cannot be accidentally operated in the event the workman should inadvertently bring it into engagement against any abutment or surface; for example the catch will not open should the operator press it against a telegraph pole or cross arm.

A further object of the invention is to provide an improved holder of this sort wherein the operating end of the tool, such as the beveled end of a chisel, is guarded, so that the workman carrying the tool cannot injure himself thereby.

A further aim of the invention is to provide a tool holder having the above and other advantages, and which is characterized by its simplicity in construction, and its economy in manufacture.

Other objects will be in part obvious, and in part pointed out more in detail hereinafter.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the appended claims.

In the accompanying drawing, wherein is illustrated one embodiment which the present invention may take,

Fig. 1 is a front view of a holder for supporting a chisel or the like, a chisel being shown in broken lines;

Fig. 2 is a side or edge view of what is shown in Fig. 1;

Fig. 3 is a sectional view through the guard or shoe;

Fig. 4 is a view of the safety catch, this view being taken substantially on line 4—4 of Fig. 1, the catch being shown in closed or holding position;

Fig. 5 is a view similar to Fig. 4 but showing the jaws or hooks of the catch open;

Fig. 6 is a perspective view of one of the jaws; and

Fig. 7 is a perspective view of the stem or post.

Referring to the drawing in detail, my improved holder comprises, generally, a safety catch A adapted to receive the shank or neck of the tool; a guard or shoe B adapted to house and protect the end of the tool; a connection such as a strap C between the safety catch and the guard, and means for securing the holder to the wearing apparel of the workmen, this means, in the present instance, being conveniently illustrated as comprising a snap hook D. The safety catch, the strap C, and the hook D, are attached to a member E which I may conveniently refer to as a base.

Referring first to the safety catch, this includes a pair of jaw elements complemental to one another and having curved arms or hook portions 10 adapted to embrace the shank of the tool, when the jaws are closed, as shown in Fig. 4. These jaw elements, which preferably comprise channel shaped sheet metal members, are pivoted, as by means of a pin 11, to a stem or post 12 secured to the base E, as by means of the rivet 13. The inner ends of the jaw elements, that is, the ends rearwardly of the pivot 11, are provided with outstanding projections or lugs 14. In the present illustrated disclosure, the post 12 is in the form of a U-shaped member formed of sheet metal, as shown most clearly in Fig. 7. The post thus has a pair of parallel legs, and the jaw elemetal, as shown most clearly in Fig. 7. The post is non-circular in cross section; more particularly, in the present instance, it is square. The portions of the jaw elements pivoted between the legs of the post have external surfaces 15 which constitute cams and which cams, when the jaws are open, are angularly disposed with respect to and project beyond the side edges of the legs of the post.

Slidably mounted upon the post forwardly of the lugs or projections 14 is an operating member, designated generally by the numeral 20, and having a centrally disposed opening 19 adapted

to slidably receive the post 12. This opening 19 is square, so that the operating member cannot turn on the post. This operating member, in the present illustrated disclosure, is shown as comprising a piece of sheet metal of generally U-shaped form and with flanges or finger-engaging pieces 21 extending outwardly from the ends of the legs 22. These legs and the inner ends of the flanges are slotted, as at 23, so as to accommodate the arms 10 of the jaws. By preference, the legs 22 are spaced apart a distance slightly less than the diameter of the ring formed by the jaws when the latter are closed, so that the jaws always extend into these slots. With this arrangement, the jaws assist in guiding the operating member when it is moved backwardly and forwardly on the stem 12. It will be observed that the finger-engaging flanges 21 are adjacent the forward ends of the jaws so that the jaws will not obstruct these flanges or interfere with the manipulation of the operating member when the latter is moved backward to cause the jaws to open. About the stem 12 and interposed between the central or cross portion of the operating member and the base E is a coiled spring 40 which normally urges the operating member outwardly to the position shown in Fig. 4.

The base E preferably comprises a strip of metal folded on itself and having an eye 25 at one end which receives the cross piece of the snap hook D, which snap hook may be of a usual construction. The strap C, of webbing or the like, is secured to the base in any suitable manner, as by means of rivets 26. The guard B is adjustably connected to the lower end of the strap by a buckle of any suitable construction. In the present instance, this buckle has a body portion 30 secured to the upper end of the rear wall of the guard, and a slide 31 of usual construction.

The guard or shoe B is here illustrated as comprising a box-like member open at its upper end. This guard is preferably formed of sheet metal and has, in its lower end, a body or cushion 35 of relatively soft material, such as fiber, so as to guard against injury to the cutting edge of the tool. This cushion 35 may be held in place by depressing portions of the front and rear walls of the guard so as to provide above the cushion internal shoulders 36.

In use, the device is secured, by means of the snap hook D, to a belt or other member at the waist of the workman. Normally, the spring 40 urges the operating member outwardly to the position shown in Fig. 4, and due to the engagement between the side edges of the opening 19 and the surfaces 15 on the jaw elements, the latter are resiliently held in closed relation, as shown in that figure. To insert the tool into the holder, the lower edge of the blade 37 of the chisel is first inserted into the guard; the workman engages two of his fingers against the flanges 21 and presses the operating member inwardly, whereupon the operating member will engage the lugs 14 of the jaw elements, causing the latter to move apart to the open position shown in Fig. 5. The operator now swings the upper end of the tool rearwardly, that is, towards his person, so as to position the shank or neck 38 of the chisel between the open jaws. The operating member is now released, whereupon the spring 40 urges the same outwardly causing the jaws to close about the neck 38 of the tool. When it is desired to remove the tool, this may be readily done by merely again forcing the operating member rearwardly. As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. In combination, a pair of jaws adapted when closed to encircle an article, an element to which said jaws are pivoted, an operating member slidably mounted on said element, said jaws having portions with which said member engages when the latter is moved rearwardly of said jaws whereby to open the jaws, said jaws having surfaces against which said member acts to close the jaws when the member is moved forwardly, and spring means normally urging said member forwardly.

2. In combination, a pair of complementary jaw elements having curved arms adapted when closed to encircle an article, a post to which said jaw elements are pivoted, an operating member slidably mounted on said post, said jaw elements having means rearwardly of said member and adapted to be engaged thereby when the member is moved rearwardly to open said arms, said jaw elements having cam surfaces against which said member acts when the latter is moved forwardly so as to close said arms, and a spring normally urging said member forwardly.

3. In combination, a non-circular post, a pair of jaw elements pivoted thereto and having complementary curved arms adapted when closed to encircle an article, said jaw elements having rearwardly of their pivot outwardly extending lugs, an operating member slidably mounted on said post and adapted to engage said lugs when moved rearwardly to cause the arms to open, said arms adjacent their pivoted ends having external cam surfaces against which said member is adapted to engage when moved forwardly so as to close the arms, and a spring about said post normally urging the operating member forwardly.

4. In combination, a pair of jaws adapted when closed to encircle an article, a post to which said jaws are pivoted, an operating member slidably supported by said post and having a pair of finger-engaging portions located on opposite sides of, and adjacent the forward ends of the jaws, cooperating means between the operating member and jaws whereby when the operating member is moved rearwardly the jaws are opened and when moved forwardly the jaws are closed, and a spring urging the jaws forwardly.

5. In combination, a post, a pair of jaw elements pivoted to said post and having complementary curved arms adapted when closed to encircle an article, an operating member of general U-shape and having outstanding finger-engaging flanges at its outer ends, the central portion of said operating member having an opening slidably receiving said post, the sides of said operating member being slotted to accommodate said arms, cooperating means between said operating member and jaw elements for opening and closing said arms when the operating member is moved forwardly and rearwardly, and a spring urging the operating member forwardly.

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