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LATCH FOR PIVOTED HANDLES

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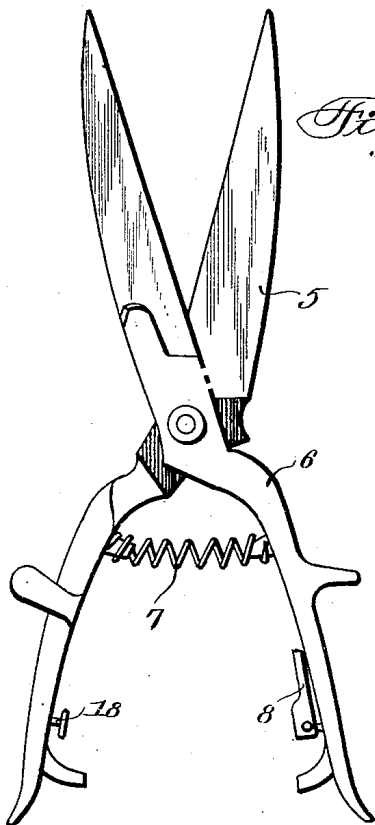


Fig. 1.

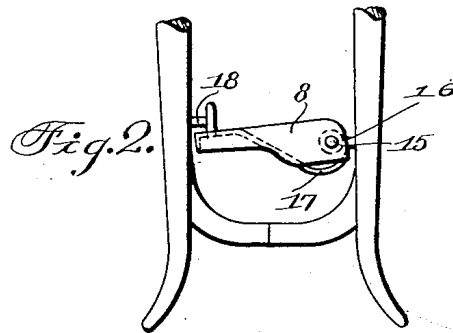


Fig. 2.

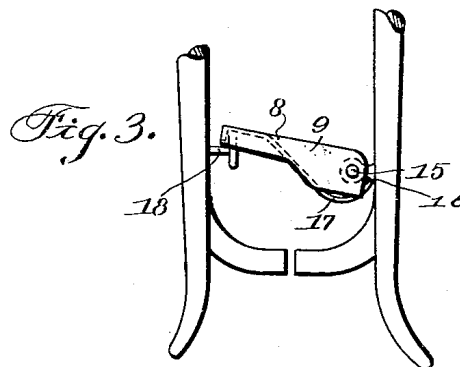


Fig. 3.

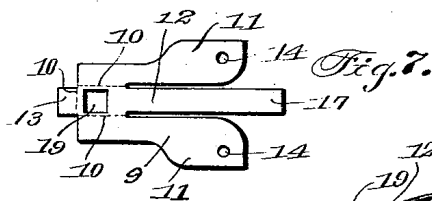


Fig. 4.

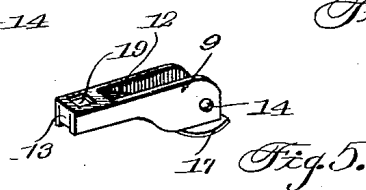


Fig. 5.

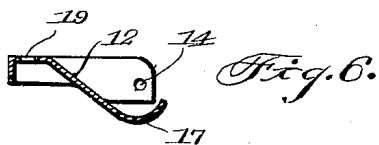


Fig. 6.

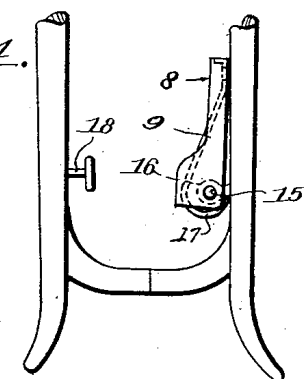


Fig. 7.

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LATCH FOR PIVOTED HANDLES

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My invention is a latch for hand implements having oppositely movable manipulating handles, and an object thereof is to provide a latch for holding the handles in parallelism against relative movement when the implement is not in use, but may be readily released to free the handles for operation when desired.

Further, the invention provides a latch for implements of the pivoted crossed handle type, whereby the co-acting movable parts of the implement are held in closed position when not in use, and which is operable to free the movable parts upon gripping the handles.

With the preceding and other objects and advantages in mind, the invention consists in the novel combination of elements, constructions and arrangement of parts to be hereinafter specifically referred to, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is an elevation of a pair of shears in position for use having my invention associated therewith;

Figure 2 is a fragmentary view of the shear handles and latch in operative position;

Figure 3 is a similar view illustrating the latch in a second operative position;

Figure 4 is a view similar to Figures 2 and 3 illustrating the latch in inoperative position;

Figure 5 is a perspective of the latch element removed from the shears;

Figure 6 is a longitudinal sectional view of the same; and

Figure 7 is an elevation of the blank from which the latch element is formed.

To illustrate the application of the invention, a pair of shears 5, embodying a pair of pivoted crossed handles 6 normally urged apart by an expansible spring 7 is illustrated in the drawing.

A latch element 8, formed from a substantially T-shaped blank of resilient metal 9 is provided. This blank 9 is bent at right angles along parallel lines 10 to afford a pair of parallel flanges or walls 11, while the intermediate leg of the blank provides a spring arm 12. At its forward end the blank is

formed with an extension 13, which is bent at right angles to lie between the walls or flanges at one end to constitute a catch. Transversely aligned openings 14 are formed in the opposite ends of the walls or flanges which receive a pivot pin 15 passing through a laterally projecting ear 16 upon the inner face of one of the handles 6, the ear being disposed between the walls or flanges as illustrated in the drawing.

As illustrated in Figure 6, the leaf spring extends obliquely between the flanges or walls, and has its free end longitudinally curved, as at 17, and engaged against the ear 16 to normally urge the latch element to a position where it extends longitudinally against the inner face of one of the handles 6.

For co-operation with the latch element a keeper or T-shaped stud 18 projects laterally from the inner face of the other handle 6 in transverse alignment with the ear 16.

In normal use the latch element is swung to the position illustrated to engage the catch with the keeper or stud to hold the handles and blades of the shears in closed position against the action of the expansible spring. When it is desired to use the shears, a slight gripping of the handles will disengage the keeper or stud from the catch, and permit the leaf spring to function to return the latch element to the position illustrated in Figure 4. Should it be desired to prevent automatic disengagement of the latch element, as when the shears are in shipment or storage, the latch element is swung to an angular position, illustrated in Figure 2, to engage a rectangular opening 19 in the free end thereof with the keeper or stud.

What is claimed is:

1. In combination a pair of oppositely movable handles, a keeper carried by one of the handles, and a latch element pivotally mounted upon the other handle and engageable with the keeper, the latch element consisting of a length of sheet metal bent into channel-shaped formation and having an intermediate longitudinally curved resilient portion struck out therefrom and having its free end bearing against one of the handle members and

normally urging the latch element to a position to lie parallel to such handle member.

2. In combination a pair of opposed handles, a T-shaped keeper projecting from the inner face of one of the handles, a pivoted latch element carried by the inner face of the other handle, and a leaf spring carried by the latch element and operable to urge the latch element to a position parallel to said handle member, the latch element having an opening in one side to receive one of the branches of the keeper and when so engaged will necessitate manual manipulation of the latch element to free it from the keeper, the latch element being also engageable with the opposite branch of the keeper and when engaged with said branch the latch element will be automatically released from the keeper upon movement of the handles toward each other.

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