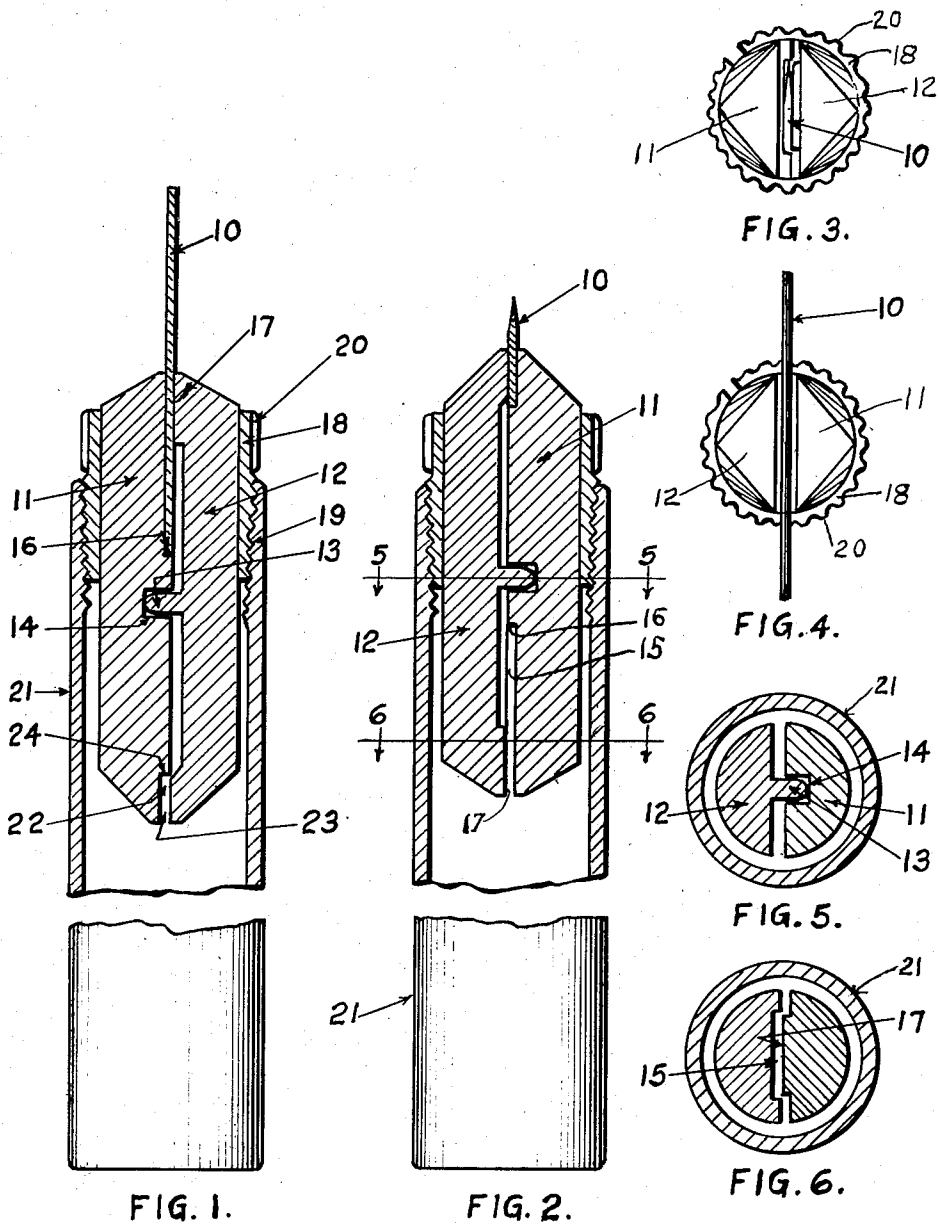


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S. G. BENHAM
CONVERTIBLE HAND TOOL
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CONVERTIBLE HAND TOOL

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8 Claims. (Cl. 30-122)

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The present invention relates to a convertible hand tool and more particularly to a device comprising a blade with a sharp edge and convertible holding means adapted to hold the blade in position for use as an ordinary pocket knife or for use as a scraper.

An important object is to provide a novel and advantageous tool of the character specified.

Another object of the present invention is to provide a device of the character specified which is simple in structure, economical to manufacture and efficient in operation.

In carrying out the invention use may be made of a single edge blade, a handle, double ended jaws pivoted at an intermediate position and constructed at one end to hold the blade in a position longitudinal with respect to said handle and at the other end to hold the blade in a transverse position, and means controlled by said handle to press said jaws together at either end which is positioned to extend beyond the end of the handle. Preferably the blade is a single edge razor blade which is of course very sharp and therefore adapted for use either as a knife or a scraper.

Other objects, features and advantages will appear upon consideration of the following detailed description and of the drawings in which:

Fig. 1 is an elevation partly in section of the tool showing the single edge blade in position for use as a knife;

Fig. 2 shows a side elevation partly in section with the single edge blade secured in position for use as a scraper;

Fig. 3 is a view from above of the tool as illustrated in Fig. 1;

Fig. 4 is a view from above of the tool as arranged in Fig. 2;

Fig. 5 is a section taken along the line 5-5 of Fig. 2; and

Fig. 6 is a section taken along the line 6-6 of Fig. 2.

Referring to the drawings a single edge blade 10 is gripped by means of double-ended jaws 11 and 12 constituting a device in the nature of a chuck. Said jaws 11 and 12 are pivoted at a position intermediate their ends by means of a stud or pin 13 extending from the member 12 into a recess 14 in the member 11. At one end of the gripping device comprising the members 11 and 12, the member 11 is provided with a longitudinal recess 15 into which the blade 10 is inserted longitudinally with its inner end engaging a shoulder 16. The corresponding end of member 12 is provided with a projection 17

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adapted to enter the recess 15 when not obstructed by the blade 10.

It will be evident from the foregoing description that pressing the outer ends of the members 11 and 12 together will grip the knife therebetween. To press said members 11 and 12 together as illustrated in Fig. 1 use may be made of a split ring 18 (Figs. 3 and 4) having a tapered threaded portion 19 at its inner end and a knurled portion 20 at the other end. With the split ring 18 in this position a hollow handle 21 with a corresponding inwardly-screw-threaded open end, is screwed over the threaded inner end of said split ring 18 until the ring is contracted enough to press corresponding ends of the members or double-ended jaws 11 and 12 together and grip the knife 10 in fixed position. Said handle 21 has a closed outer end and is of sufficient length to receive inside thereof blades 10 when not in use.

When said blade 10 is to be used as a scraper, that is, transversely of the body of the tool, the end which is in the handle and out of use in Figure 1, is positioned at the forward end of the tool and the blade is set in a recess 22 in the jaw or member 11 against a shoulder 24 at the inner end of said recess. The other jaw 12 is provided at the corresponding point with a projection 23 to engage the knife and grip it in said recess 22. The split ring 18 having previously been placed over the jaws or members 11 and 12 at the outer end of the assembly (Fig. 2), the handle 21 is screwed on said split ring 18 until the jaws holding the blade 10 grip the same firmly.

Of course the two members or jaws 11 and 12 may be pivoted in a different manner but the pin and recess connection holds the jaws or members 11 and 12 against lengthwise movement and lateral movement relative to each other. Preferably said jaws 11 and 12 are made of plastic material. Obviously the jaws may be changed without change in effect. For example the projection 23, Fig. 1, might be placed on member 11 and the member 12 provided with a recess 22.

It will be evident that the tool as arranged in Figs. 1 and 2 will furnish an effective knife or scraper for ordinary service, the blade being of sharp hard steel so that it will remain sharp for a considerable period.

A great advantage of the tool of the present invention is that the jaws 11 and 12 are pressed together close to the position of the blade to be clamped.

It should be understood that various changes may be made and that certain features may be

used without others without departing from the true scope and spirit of the invention.

What is claimed is:

1. The combination of a blade having a longitudinal cutting edge with a device for holding said blade comprising an assembly of two double-ended jaws pivoted on each other at an intermediate point, a handle having a tubular end to receive either end of said assembly and means operated by said handle for pressing the outer ends of said jaws together to grip said blade therebetween.

2. The combination according to claim 1 wherein at one end of the said assembly double-ended jaws one of said jaws has a recess to receive longitudinally one end of said blade and the other jaw has a projection to enter said recess and grip said blade therein.

3. The combination according to claim 2 wherein at the other end of said assemblage of double-ended jaws one of them is provided with a recess terminating in a transverse shoulder to locate said blade transverse of said handle with its edge beyond the outer ends of said jaws and the other jaw is provided with a projection to engage said blade and hold it in position in said recess.

4. The combination according to claim 1 wherein said means for pressing said jaws together comprises a split ring to be placed over either end of the two jaws, said ring having a tapered external screw thread, and said handle having a correspondingly tapered internal screw thread.

5. The combination according to claim 1 wherein the pivoting of said jaws is effected by means of a pin projecting from one jaw and extending into a recess in the other.

6. The combination according to claim 1 wherein said blade is a single-edge blade and said cutting edge is straight.

7. The combination according to claim 1 wherein said means for pressing said jaws together comprises a sleeve with a longitudinal slit to be placed over either end of the two jaws, said sleeve having a tapered internal screw thread at one end and a knurled portion at the other end, and said handle having a correspondingly tapered internal screw thread.

8. The combination according to claim 1 wherein at one end of the assembly of double-ended jaws one of said jaws is provided with means to hold one end of said blade longitudinally of the jaw and the other jaw is shaped to engage said blade and press it against said first mentioned jaw.

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