June 2, 1953 C. J. SULLIVAN ET AL 2,640,264

THUMB GUIDE SHEAR HANDLE

Filed Dec. 27, 1950

Fig. 1

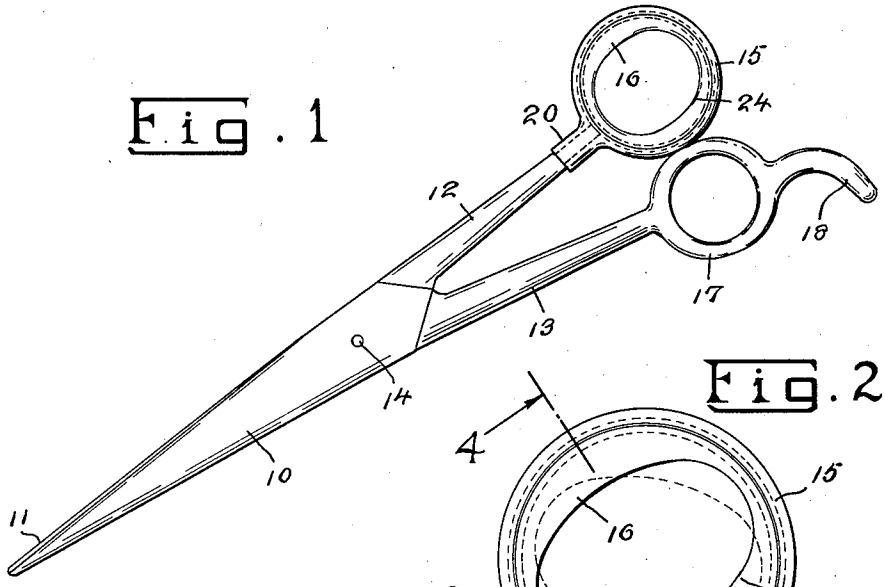


Fig. 2

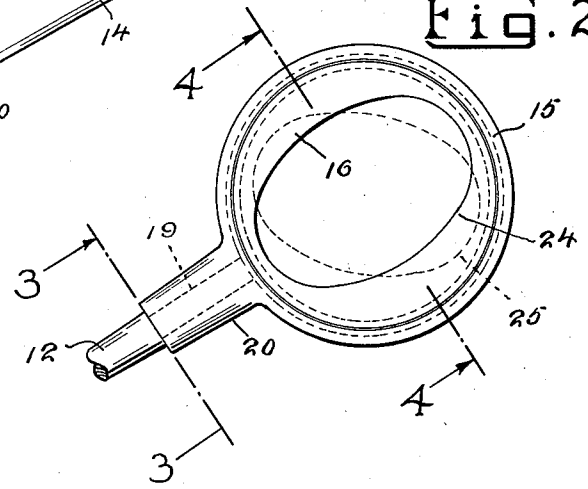


Fig. 3

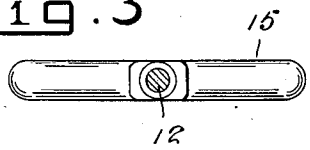


Fig. 4

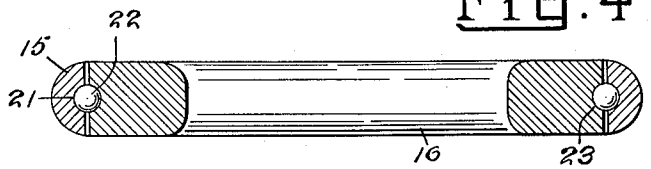
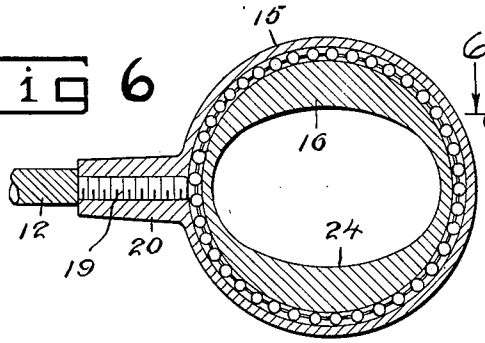


Fig 6



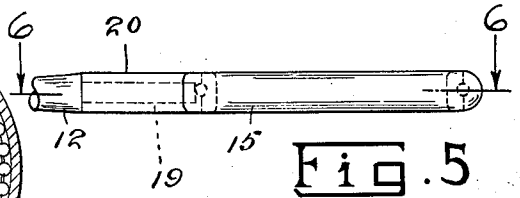


Fig. 5

INVENTORS.
Cecil J. Sullivan
Walter B. Wright

BY Victor J. Evans & Co.
ATTORNEYS

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THUMB GUIDE SHEAR HANDLE

Cecil J. Sullivan and Walter B. Wright,
Modesto, Calif.

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2 Claims. (Cl. 30—341)

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This invention relates to shears of the type having thumb and finger gripping loops in the ends of the handles, and in particular a pair of shears having a thumb loop or eye with an inner thumb receiving guide journaled in the eye and having an elongated opening therein whereby the guide oscillates as the shears are used.

The purpose of this invention is to eliminate the discomfort caused by pressure of the thumb loop of a pair of shears on parts of a thumb extended through the loop where shears are used continuously.

In the conventional type of shears the thumb and finger receiving loops at the ends of handles are rigid and loops twist on the thumb and with continuous use of the shears such as in cutting garment materials the pressure of the thumb loop on the upper forwardly disposed surface of the thumb is uncomfortable and often produces blisters. With this thought in mind this invention contemplates an inner guide journaled in a thumb loop of a pair of shears whereby the surfaces of the guide follow the position of the thumb when the shears are used so that the pressure is equally distributed around the contacting surfaces of the thumb and guide.

The object of this invention is, therefore, to provide means for forming a thumb receiving eye or loop on the handle of a pair of shears so that the thumb contacting surfaces of the loop oscillate to follow the positions of the thumb in cutting with the shears.

Another object of the invention is to provide an attachment for providing an oscillating movement in the thumb loop of a pair of shears that may be installed on shears now in use.

A further object of the invention is to provide a pair of shears having an oscillating thumb guide in the thumb receiving loop thereof which are of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a pair of shears having cutting blades with handles in which conventional finger receiving elements are provided on one handle and the other handle is provided with an eye having a thumb guide journaled therein.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a front elevational view showing a pair of scissors or shears with the improved oscillating thumb guide positioned on one of the handles thereof.

Figure 2 is a similar view on an enlarged scale

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showing the thumb guide with the handle of the shears broken away and with other parts omitted and illustrating the turning or oscillating movement of the thumb guide in dotted lines.

Figure 3 is a cross section through the end of the handle on which the thumb guide is positioned being taken on line 3—3 of Figure 2 and showing the thumb receiving eye in elevation.

Figure 4 is a cross section taken on line 4—4 of Figure 2 showing the thumb guide and mounting ring therefor.

Figure 5 is a side elevational view showing the thumb receiving ring or loop with the guide therein and with the handle upon which the ring is mounted broken away.

Figure 6 is a longitudinal section taken on line 6—6 of Figure 5 illustrating the mounting of the thumb guide in the eye or ring on the end of the handle of the shears.

Referring now to the drawings wherein like reference characters denote corresponding parts the improved shears of this invention include blades 10 and 11 having handles 12 and 13, respectively, with the handles pivotally connected by a pin 14 and with the handle 12 provided with an eye 15 having a thumb guide 16 therein, and with the handle 13 having a finger receiving loop 17 and also a projection 18.

The end of the handle 12 is provided with a threaded stud 19 on which a hub 20 at one side of the ring 15 is threaded and, as illustrated in Figures 4 and 6 the ring 15 is provided with a ball race 21 with balls 22 free to rotate in the race. The balls 22 also extend into an inner race 23 in the guide 16 and with the parts mounted in this manner the guide 16 is free to rotate in the outer ring or loop 15.

The guide 16 is provided with an elongated thumb receiving opening 24 and the guide is free to oscillate or rotate in the ring so that as the shears are used the surfaces around the opening 24 follow corresponding surfaces of a thumb extended through the opening and the guide oscillates from the position shown in full lines in Figure 2 to that shown by the dotted lines 25.

With the thumb guide 16 moving continuously in this manner shears upon which the improved thumb receiving eye is positioned may be used continuously without discomfort to the thumb.

It will also be understood that thumb guides of this type may be provided in different sizes so that a single pair of shears may be used by men, women and children.

It will be understood that modifications may be made in the design and arrangement of the

parts without departing from the spirit of the invention.

What is claimed is:

1. In a pair of shears, the combination which comprises a pair of pivotally connected cutting blades having handles extended beyond the pivotal connections of the blades with finger holding means on the end of one of the said handles and with a threaded stud extended from the end of the other handle, a ring having a ball race therein and having an internally threaded hub extended from one side threaded on the threaded stud of the handle, a thumb guide having an elongated thumb receiving opening therethrough and a ball race in the outer surface positioned in the said ring, and balls positioned between the ring and guide whereby the guide is rotatably mounted in the ring.

2. In a pair of shears, the combination which

comprises a pair of pivotally connected cutting blades and each blade having a handle portion at one end thereof, a ring at the end of one handle portion, a ball race in said ring, a thumb guide having a ball race in the outer surface thereof positioned in said ring and balls positioned between the guide and ring within the ball races for rotatably mounting the guide in the ring.

CECIL J. SULLIVAN.
WALTER B. WRIGHT.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
440,436	Pearsall	Nov. 11, 1890
785,934	Border	Mar. 28, 1905
1,017,545	Hopkins	Feb. 13, 1912
1,526,407	Wright	Feb. 17, 1925