

Dec. 26, 1939.

A. A. CROMPTON

2,184,909

SCISSORS

Filed Sept. 17, 1936

3 Sheets-Sheet 1

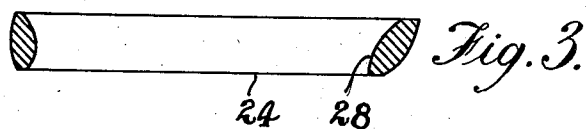
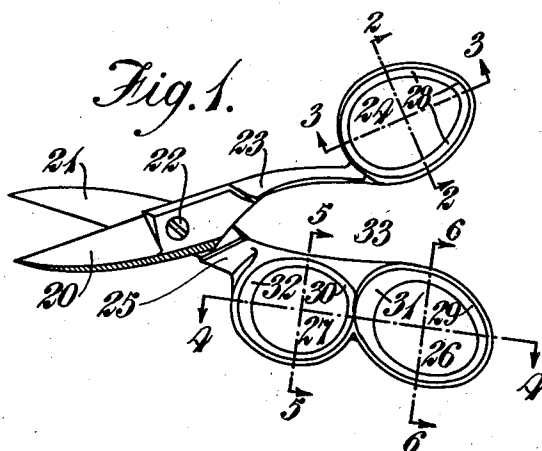
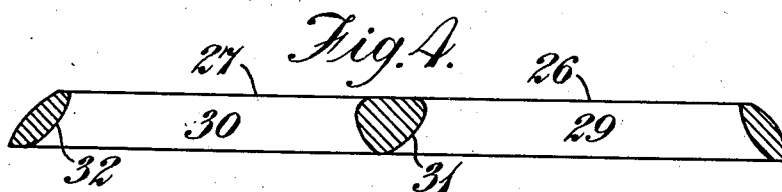


Fig. 6.

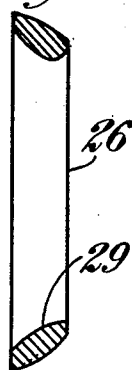


Fig. 5.

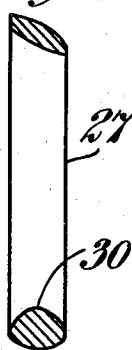
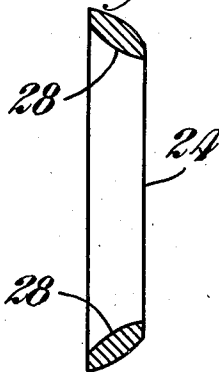


Fig. 2.



A. A. Crompton

By

Lucy & Lucy

Attys.

Dec. 26, 1939.

A. A. CROMPTON

2,184,909

SCISSORS

Filed Sept. 17, 1936

3 Sheets-Sheet 2

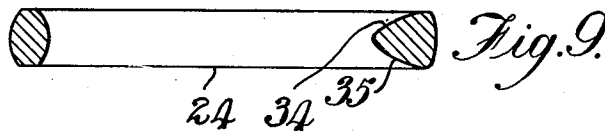
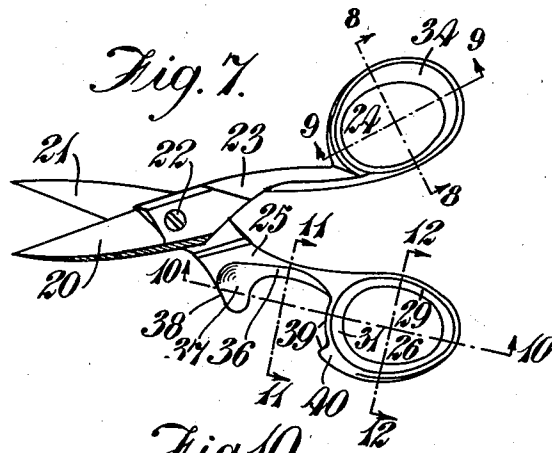
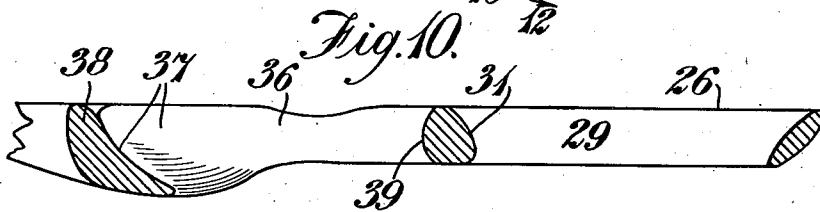
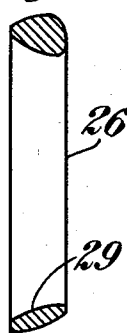
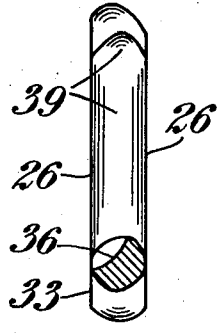
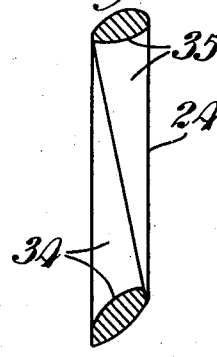


Fig. 12.

Fig. 11.

Fig. 8.



A.A. Crompton
By *Lacey & Lacey* Attys.

Dec. 26, 1939.

A. A. CROMPTON

2,184,909

SCISSORS

Filed Sept. 17, 1936

3 Sheets-Sheet 3

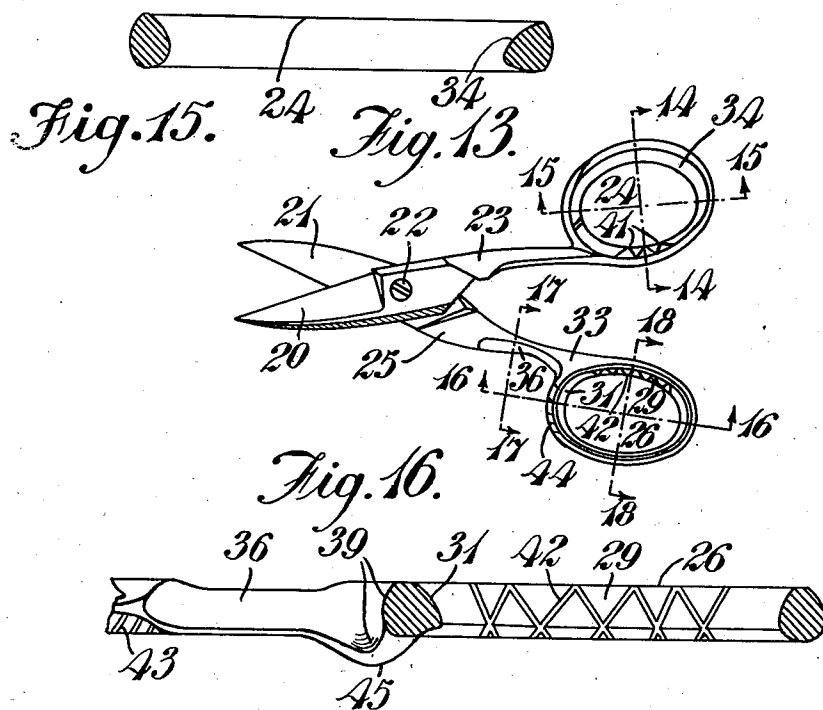
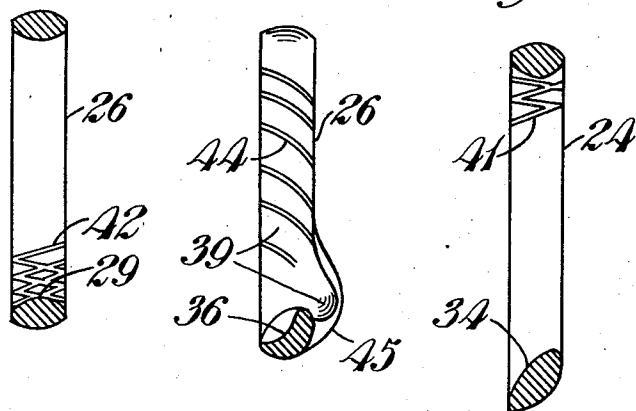


Fig. 18. Fig. 17. Fig. 14.



By A. A. Crompton

Lacy, Lacy,

Attys.

UNITED STATES PATENT OFFICE

2,184,909

SCISSORS

Abraham Alexander Crompton, near Uttoxeter,
Staffordshire, England

Application September 17, 1936, Serial No. 101,307
In Great Britain September 17, 1935

1 Claim. (Cl. 30—256)

This invention relates to scissors, shears and like shearing instruments, of the type comprising a pair of hinged blade members crossing one another at the hinge, and provided with shanks cranked or thickened to be in substantially the same plane and having bows to embrace respectively the thumb and a finger or fingers of the hand, the main object of the invention being the provision of an improved construction to facilitate the use of such an instrument by the right and left hand at will.

When the normal instrument of this type, intended for use by the right hand, is held with the pivot horizontal and the points away from the observer, the lower blade, which is attached to the upper bow, is on the left and the upper blade, which is attached to the lower bow, is on the right, so that the left blade and upper bow are operated by the thumb and the right blade and lower bow are operated by a finger or fingers. The bows are frequently shaped to fit comfortably the thumb and fingers of the right hand, for which purpose the interior surfaces of the bows are inclined to the blade members, those of the upper bow extending forwardly and to the left from the rear right side. Alternatively, in some cases the bows have been shaped to fit the thumb and finger of the left hand in instruments with the lower blade and upper bow on the right for use in the left hand.

It is, in general, rather awkward to operate with the left hand an instrument pivoted and designed for use with the right hand, because the natural squeezing action of the fingers and thumb in this case tends to cause the blades to separate, instead of urging them together as when operating the instrument with the hand for which it is pivoted.

According to the present invention the two blades of scissors, shears or like shearing instruments of the type referred to (which are not reversible) are pivoted together in the manner usual for operation by one hand, for example the right hand, one blade is provided with a bow shaped to fit the thumb of the other hand, for example the left hand, and the other blade with one, two or more bows or gripping surfaces adapted to receive the finger or fingers of that other hand. The gripping surfaces may be provided with grooves, ribs or chequers.

If desired a gripping surface may be provided on the shank between a bow and the pivot for engagement by a finger of the user. Further, a gripping surface may be provided by a web, flange, boss or the like and two of the finger

bows may be separated by such a web of substantial width adjacent to the shank.

In some cases the finger bow may be closed by a thimble-like web or framework.

In the accompanying drawings:

Figure 1 is an elevation of a pair of scissors according to the present invention.

Figures 2, 3, 4, 5, and 6, are sectional views drawn to an enlarged scale and respectively taken on the line 2—2, 3—3, 4—4, 5—5, and 6—6 of Figure 1 and looking in the direction of the arrows indicated.

Figure 7 is an elevation of a modification.

Figures 8, 9, 10, 11, and 12, are sectional views drawn to an enlarged scale and respectively taken on the lines 8—8, 9—9, 10—10, 11—11, and 12—12 of Figure 7 and looking in the direction of the arrows indicated.

Figure 13 is an elevation of another modification.

Figures 14, 15, 16, 17, and 18 are sectional views drawn to an enlarged scale and respectively taken on the line 14—14, 15—15, 16—16, 17—17, and 18—18 of Figure 13 and looking in the direction of the arrows indicated.

Like reference numerals indicate like parts throughout the drawings.

With reference first to Figures 1 to 6 inclusive, the two blades 20 and 21 of the scissors shown in Figure 1 are pivoted together in the manner usual for operation by the right hand, i. e. when the instrument is held with the pivot 22 horizontal and the points away from the observer (and throughout the following description it is assumed that the instrument is held in this position), the lower blade 20, which is attached by the shank 23 to the upper bow 24, is on the left and the upper blade 21, which is attached by the shank 25 to the lower bow 26, is on the right so that the left blade 20 and upper bow 24 are operated by the thumb and the right blade 21 and lower bow 26 are operated by a finger or fingers. The shanks 23 and 25 are cranked or thicker than the blades in the usual manner to bring the bows 24 and 26 into substantially the same plane.

The upper bow 24 is shaped to fit the left thumb and the lower bow 26 is shaped to fit a finger of the left hand. Preferably, as shown, the lower shank 25 is provided with a second bow 27 which is also shaped to fit a finger of the left hand.

In general this shaping of the bows 24, 26, and 27, is such that the openings on the left into which the left thumb and fingers are in-

serted are of greater extent than the openings on the right through which the left thumb and fingers project.

In particular the interior surfaces 28 of the thumb bow 24 are of substantial width and are shaped to receive the ball of the left thumb on the inner or shank side of the bow and to bear comfortably on the opposite or outer side against that part of the thumb which is in the neighbourhood of its knuckle. Thus the end joint of the thumb may comfortably be flexed to pull the bow 24 towards the palm of the hand.

The interior surfaces of the finger bows 26 and 27 are likewise shaped on the inner or shank sides as indicated at 29 and 30 respectively in Figures 6 and 5 to provide bearing and gripping surfaces for the balls or sides of the second and index fingers of the left hand. These two bows 26 and 27 are also shaped as indicated at 31 and 32 respectively to fit the knuckles, or parts of the fingers adjacent thereto, of the left hand. Thus, a pushing action may easily be applied by the first two fingers of the left hand to urge the bows 26 and 27 away from the palm of the hand and, by this pushing action in conjunction with the action of the thumb in pulling the bow 24 towards the palm of the hand, the two blades 20 and 21 may be pressed and held in contact with one another during the whole operation of closing the scissors.

A web 33 of substantial width adjacent to the shank 25 is provided between the bows 26 and 27 and the surface of this web, which is visible in Figure 1, provides a gripping surface for the ball of the index finger when the scissors are used in the right hand. Similarly the surface of the web 33 on the opposite side to that shown in Figure 1 provides a gripping surface for the ball of the index finger of the left hand.

In the modification illustrated in Figures 7 to 12 inclusive the thumb bow 24 is provided with interior surfaces 34 which are of substantial width and are designed to fit the left thumb in a similar manner to that previously described with reference to the surface 28 shown in Figures 1, 2 and 3. The end of the bow remote from the points is, however, also shaped as shown at 35 in Figure 9 to fit the right thumb.

The finger bow 26 shown in Figures 7, 10 and 12 is shaped to fit the second finger of the left hand, being provided with interior surfaces 29 and 31 to bear comfortably on the ball or side and on the parts of that finger adjacent to its knuckle.

Between the bow 26 and pivot 22 a gripping

surface 36 is provided on the shank 25, for the ball or side of the index finger of the left hand. This gripping surface 36 is extended as shown at 37 on a boss or protuberance 38 projecting from the shank 25.

A further gripping surface for the ball or side of the index finger of the left hand is provided at 39 on the exterior of the bow 26 and on a boss 40 projecting therefrom.

In the modification illustrated in Figures 13 to 18 inclusive the gripping surface for the thumb of the left hand provided on the inner or shank side of the bow 24 is provided with grooves 41 to enable a better grip to be obtained. Similarly the gripping surface 29, on the shank side of the bow 26, is provided with grooves or chequers 42 to increase the grip obtained by the second finger of the left hand.

The gripping surface 36 for the side of the index finger of the left hand is formed on the side of the shank 25 and may be continued partially round the shank by grooves as indicated at 43.

The gripping surface for the ball or end of the index finger of the left hand on the exterior of the bow 26 is provided with grooves 44 and is continued in a hollowed projection or web 45 at the junction of the bow 26 with the shank 25.

Although the bows and gripping surfaces of the scissors herein described and illustrated are specially designed for manipulation by the left hand, nevertheless operation of the instrument by the right hand is not adversely affected since, even though the bows may not fit the fingers of that hand so well, the action is more natural and is not impeded.

What I claim is:

In scissors, a pair of blades having shanks, means pivotally connecting the blades, said shanks having mating bows and one of said shanks having an additional bow of the same size as and disposed forwardly of the first mentioned bow on said shank, said last mentioned bows being connected by a web, all of said bows having their inner surfaces rounded so as to conveniently receive the thumb and fingers, the first mentioned bow on the shank opposite the shank carrying two bows having its inner surface also chamfered to conveniently receive the thumb of either hand and the forwardly disposed bow being chamfered to conveniently receive the forefinger of either hand so that the scissors may be operated from either hand.

ABRAHAM ALEXANDER CROMPTON.