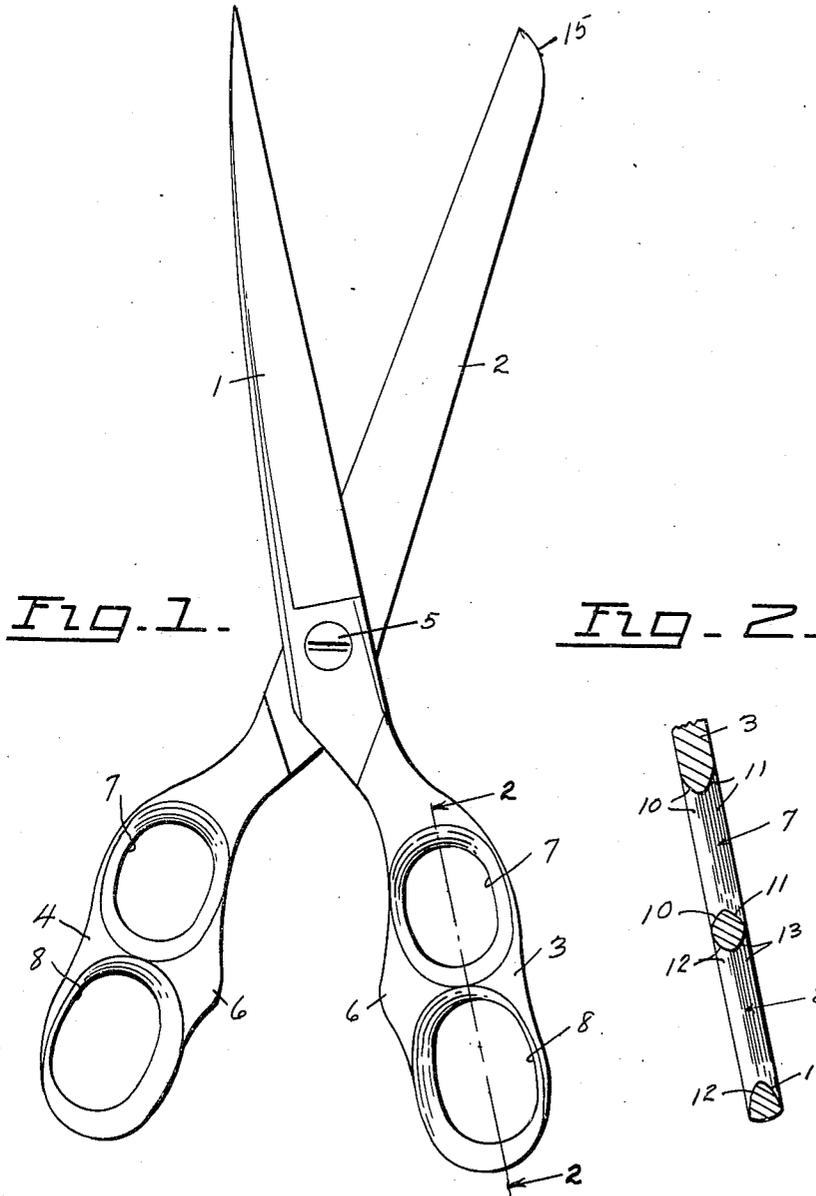


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SCISSORS

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SCISSORS

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This invention relates to scissors, and has for an object the provision of scissors adapted to be used with equal facility and comfort by the right and left hand of a person, or by right handed or left handed persons, and which scissors when so used in either hand are adapted to be manipulated with greater accuracy and dexterity than in scissors of the conventional construction.

Another object is the provision of scissors adapted to be reversed for use by the same hand of the operator, and which scissors are adapted to be manipulated with equal facility and comfort irrespective of which handle is engaged by the thumb of the operator.

The foregoing object can best be understood by reference to a conventional pair of scissors comprising a pair of blades pivotally connected together, adjacent one of their ends and extending past said pivot to provide the handles, each of which is provided with an opening, one being for the thumb of one hand, and generally round, while the opening in the other handle is for the first and second, or second and third fingers of the same hand, and is generally elliptical in outline. The two opposite inner surfaces of the thumb opening that are respectively adjacent to and remote from the pivot that connects the blades are inclined in the same direction relative to the central axis of the thumb opening so as to facilitate the entrance of the thumb into said opening from one side only, which is from the right side of the scissors relative to the operator when the points of the blades are directed away from the latter and the handles are one over the other. This structure is for a right handed operator. When the thumb is then placed in the thumb opening at about said angle relative to the said central axis of said opening, the flat sides of the opening will comfortably fit against said thumb. The side remote from the blades will fit against the portion of the abductor pollicis brevis muscle adjacent the opponens pollicis muscle and extensor pollicis brevis at about the juncture between the metacarpal bone of the thumb and the phalanx adjacent thereto. The side of the thumb opening nearest the blades will fit against the opposite side of the thumb at a point between the ends of the first phalanx and adjacent the juncture between the first and second phalanges.

As to the elongated opening in the handle of the other blade, and which is lowermost when the thumb is in the above described position, the inclination of the two opposite sides of the said opening is opposite to that of the correspondingly positioned above described two opposite sides of

the thumb opening. This is because the fingers that are inserted in said elongated opening extend therethrough at an angle the opposite of that assumed by the thumb.

Upon inverting a pair of scissors of above described construction, it will be seen that the scissors cannot be manipulated with the same comfort and facility as before, since the thumb is now in an opening far too large for it, while the thumb opening is too large for one of the other fingers of the hand, but too small for several of such fingers. Yet scissors are designed to be held in this uncomfortable position for certain operations, such as for cutting cloth on a table, since the lowermost blade when the thumb opening is lowermost is formed with a rounded or angular gliding surface adjacent the point to prevent accidental digging of the point of the lowermost blade into the table or support for the cloth during said cutting. The other blade is provided with a very sharp point for use in other operations, such as the finer and more delicate work of cutting threads or cutting small openings, etc.

Assuming that the operator wishes to use the conventional scissors in the opposite hand, then the finger openings no longer provide flat surfaces that lie against the fingers, but instead, the edges of the finger openings are sharp where they should fit comfortably against the fingers.

These objections in conventional scissors are entirely overcome by my construction, and the scissors are adapted to be manipulated with even greater facility and comfort than the conventional scissors under conditions that heretofore have been considered most favorable for ordinary scissors.

In the drawing,

Fig. 1 is an elevational view of a pair of scissors embodying my invention.

Fig. 2 is a sectional view along line 2—2 of Fig. 1.

In detail, the pair of scissors illustrated comprises a pair of blades 1, 2 having handles 3, 4, respectively formed integrally therewith in extension of one of their corresponding ends and which ends are pivotally connected by a pivot 5.

When blades 1, 2 are in closed position, and one is over the other, the handles are side by side and slight projections 6 on their adjacent sides are in engagement with each other.

The foregoing structure is substantially conventional in all scissors. In such conventional scissors the handles are formed with finger openings of the structure hereinbefore mentioned. In some other structures the handle openings are

both relatively large and elliptical, but these are generally scissors for specific uses wherein no particular fit for any of the fingers is contemplated.

In my construction each handle is formed with a pair of openings 7, 8. The openings 7 in each handle are at the end thereof nearest pivot 5, while the openings 8 are at the outer ends of the handles. Handles 3, 4 are respectively offset to opposite sides of a straight line extending through pivot 5 and the point of engagement between projections 6 on the handles when the latter are together, and when in this position, a pair of straight lines respectively drawn through the openings in each handle would generally extend parallel to the cutting edge of the blades at opposite sides thereof.

The openings 7, 8 in one handle is the exact duplicate of openings 7, 8 in the other handle, and they are in correspondingly the same positions relative to the pivot 5. Openings 7 are preferably smaller than openings 8, and openings 8 are adapted to fit the thumb of either hand of the operator. Openings 7 are adapted to comfortably receive the first or second finger of either hand of the operator.

In referring to these openings as being adapted to fit the thumb and the first or second finger of the operator's hand, it is meant that they comfortably receive said thumb and finger when such thumb and finger are in the usual positions for holding the scissors during cutting thereof.

The openings 7 and 8 are preferably elongated in the same dimension in each handle; that is, in direction generally longitudinally of the blade carrying the handle.

In Fig. 2 it is seen that the two opposite inner sides of the openings 7 and the two opposite inner sides of openings 8 are respectively slanted at 10, 11 and at 12, 13 convergently from opposite sides of the handles generally toward the central axes of said openings respectively.

Since the thumb and middle or second finger of a person's hand are almost the same thickness, it will be seen that the middle finger will readily fit in one of the openings 8 when the thumb is in the other opening 8, and when the first or index finger is in opening 7 that is alongside the one in which the middle finger is positioned. In view of the slanted sides 10, 11 and 12, 13 of said openings as described above, it is immaterial whether the scissors is held in the right or the left hand or whether they are held in normal or inverted position by either the right or left hand. In any position a comfortable and a positive grip is assured and the scissors can be manipulated with greater facility and certainty than heretofore.

The advantages are obvious in almost any of the conventional scissors or shears of which I am aware, but particularly in the type herein illustrated wherein the blades of the scissors are designed for the table cutting and for finer precision point cutting according to which of the blades is lowermost. The blades of the scissors illustrated are of the conventional type for performing these operations, the blade 2 being formed with the blunt or well rounded outer end, as at 15, while the end of blade 1 is sharply pointed. When blade 2 is lowermost and glides along a table, there is no possibility of its outer end gouging the surface of the table, and the handle structure enables comfortable yet positive manipulation of the scissors for cutting goods on a table with either hand.

Having described the invention, I claim:

1. In a pair of scissors, the improvement that comprises; a pair of openings formed in each handle, the said openings in either handle being adapted to receive therein the index finger and the middle finger respectively, of one hand of an operator when the pair of scissors is held in scissors actuating position in said hand, and one of the said openings in either pair thereof being adapted to receive the thumb of such hand therein when the pair of scissors is in said position and the thumb is in said one of said openings in one handle and the index finger and middle finger of the same hand are in the openings in the other handle.

2. In a pair of scissors, the improvement that comprises; a pair of openings formed in each handle, the said openings in either handle being adapted to receive therein the index finger and the middle finger respectively, of one hand of an operator when the pair of scissors is held in scissors actuating position in said hand, and one of the said openings in either pair thereof being adapted to receive the thumb of such hand therein when the pair of scissors is in said position and the thumb is in said one of said openings in one handle and the index finger and middle finger of the same hand are in the openings in the other handle, the openings of each pair being generally aligned longitudinally of the handle carrying the same whereby one of the openings in each pair is adjacent the pivot connecting the handles and the other opening of each pair is remote from said pivot, the openings in said handles that are remote from said pivot being slightly larger than the openings that are adjacent said pivot.

3. In a pair of scissors, the improvement that comprises; a pair of openings formed in each handle, the said openings in either handle being adapted to receive therein the index finger and the middle finger respectively, of one hand of an operator when the pair of scissors is held in scissors actuating position in said hand, and one of the said openings in either pair thereof being adapted to receive the thumb of such hand therein when the pair of scissors is in said position and the thumb is in said one of said openings in one handle and the index finger and middle finger of the same hand are in the openings in the other handle, the openings of each pair being generally aligned longitudinally of the handle carrying the same, whereby one of the openings in each pair is adjacent the pivot connecting the handles and the other opening of each pair is remote from said pivot, the openings in said handles that are remote from said pivot being elongated longitudinally of the handles respectively.

4. In a pair of scissors, the improvement that comprises; a pair of openings formed in each handle, the said openings in either handle being adapted to receive therein two of the fingers of one hand of an operator not including the thumb and one of the said openings in either handle being adapted to receive therein the thumb of such hand, the inner surfaces defining said openings being convergent from opposite sides of each handle toward a central plane co-planar therewith and the openings in each handle being generally in line longitudinally of each handle whereby the handles may be positively held and operated with equal facility and comfort by the fingers of either hand of an operator and with either handle uppermost.

5. In a pair of scissors, the improvement that

comprises; a pair of openings formed in each handle, the said openings in either handle being adapted to receive therein two of the fingers of one hand of an operator not including the thumb and one of the said openings in either handle being adapted to receive therein the thumb of such hand, the inner surfaces defining said openings being convergent from opposite sides of each handle toward a central plane co-planar therewith and the openings in each handle being generally in line longitudinally of each handle whereby the handles may be positively held and operated with equal facility and comfort by the fingers

of either hand of an operator and with either handle uppermost, the blade integral with one of said handles having a relatively blunt outer end as compared with the outer end of the blade that is integral with the other of said handles, and the outer end of the blade on said other of said handles being relatively sharp, said opening in one of said handles being the counterpart in shape and size of the opening in the other of said handles, and the opening in either pair that is adapted to receive said thumb being slightly larger than the other opening of each pair.

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