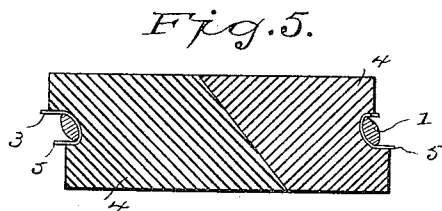
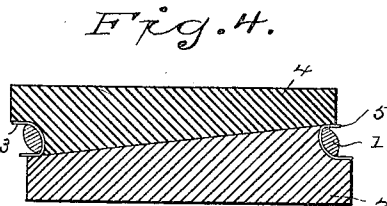
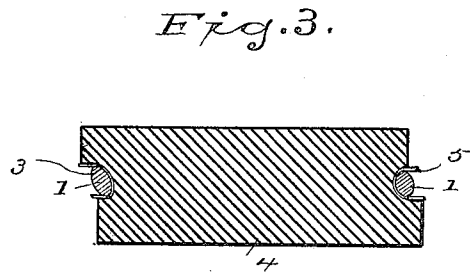
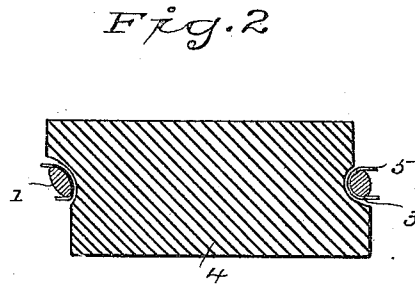
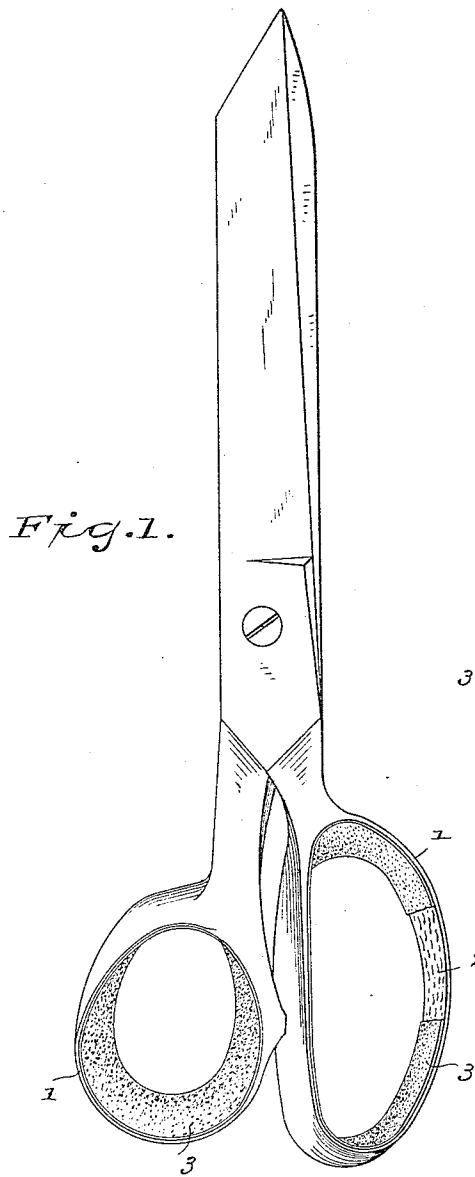


(No Model.)

D. & D. C. WHEELER.
SHEAR BOW.

No. 529,513.

Patented Nov. 20, 1894.



WITNESSES

H. A. Lamb
S. V. Richardson.

INVENTORS

Dwight Wheeler and
David C. Wheeler
By A. M. Wooster, atty.

UNITED STATES PATENT OFFICE.

DWIGHT WHEELER AND DAVID C. WHEELER, OF BRIDGEPORT, CONNECTICUT.

SHEAR-BOW.

SPECIFICATION forming part of Letters Patent No. 529,513, dated November 20, 1894.

Application filed March 31, 1894. Serial No. 505,855. (No model.)

To all whom it may concern:

Be it known that we, DWIGHT WHEELER and DAVID C. WHEELER, citizens of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Shear-Bows; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as it will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to the manufacture of scissors and shears and has for its object to provide the bows of scissors and shears with a lining of leather, felt, cloth or any suitable material, which will give to the shears a neat and attractive finish, will make them pleasant to use as it will protect the fingers against chafing and which will lessen the cost of production as it will dispense with the operations of finishing and plating the inner sides of the bows.

With these ends in view our invention consists in an improved shear bow and in the method of making the same which we will now describe referring by numbers to the accompanying drawings forming part of this specification, in which—

Figure 1 is an elevation of a pair of shears embodying our novel invention, a portion of the lining being broken away to show the rough surface underneath; Figs. 2 and 3, sections of one of the bows and the flexible die by which the lining is attached in place, Fig. 2 showing the die inserted in the bow but remaining in its normal position and Fig. 3 showing the die compressed so as to clamp the lining firmly in position in the bow, and Figs. 4 and 5 are views similar to Fig. 3 showing the die made in two parts.

1 denotes the bows of shears the inner sides of which are left unfinished as at 2, and 3 denotes a lining of any suitable material for example leather, felt or cloth which is attached to the inner sides of the bows in the manner which we will now describe. The inner sides of the bows are left rough just as they come from the molds in casting so that

the expense of finishing the inner sides of the bows and afterward of japanning or plating them is avoided. The inner sides of the bows are then prepared by placing thereon a solution of adhesive gums, the solution used being somewhat in the nature of a varnish, shellac predominating. The special compound of gums is not of the essence of our invention, it being simply necessary that the solution be strongly adhesive and capable of being firmly set by the application of heat so as to attach the linings in place with perfect firmness, making it practically impossible to remove them in ordinary use. The lining denoted by 3 is cut in the form of a ring and the ends secured together by sewing or stitching so as to make the ring of required size. The bow and the ring are then placed over an expanding or flexible die denoted by 4. This die is in fact a block of rubber which is preferably provided with a groove in which the bow and ring are loosely seated, the die being ordinarily shaped substantially as shown in Fig. 2, diagonally opposite ends being cut away sufficiently so that the die may be readily inserted, one end being first placed in position and then the other. After placing the die in position it is compressed as in Figs. 3, 4, and 5 so as to press the lining firmly into place on the inner side and edges of the bow in which position, *i. e.*, the position shown in Figs. 3, 4, and 5, the die is clamped by any suitable means. The die, lining and bow are then placed in an oven and baked. The exact heat to which the oven must be raised or the exact length of time taken in the baking are not of the essence of our invention and may be varied to suit the special adhesive compound used or the judgment of the manufacturer. As a perfectly practical temperature and time we would say raise the temperature to 300° Fahrenheit and allow the bows to bake for thirty minutes, it being simply necessary that the heat be sufficient to thoroughly melt the gums and that it be continued for a sufficient length of time to dry out the moisture and cause thorough adhesion to the rough metal of the bow. After the baking

operation the edges of the linings are trimmed in any suitable manner which finishes them ready for use.

Having thus described our invention, we
5 claim—

The method of lining shear bows herein described the same consisting in applying a solution of adhesive gums to the rough inner side of the bow, preparing the lining in the
10 form of a ring, then placing the bow and the ring over an expanding die, then expanding the die so that the lining will conform to the

outline of the bow in which position it is retained in any suitable manner, and finally baking the lining to the bow while it is held in position by the die. 15

In testimony whereof we affix our signatures in presence of two witnesses.

DWIGHT WHEELER.
DAVID C. WHEELER.

Witnesses:

JOHN T. BURNS,
ALBERT E. TOWE.