

No. 684,679.

Patented Oct. 15, 1901.

P. A. CRAVEN & G. CLEAVER.
 DEVICE FOR SHARPENING AND POLISHING SCISSORS.

(Application filed Oct. 9, 1900.)

(No Model.)

FIG. 1.

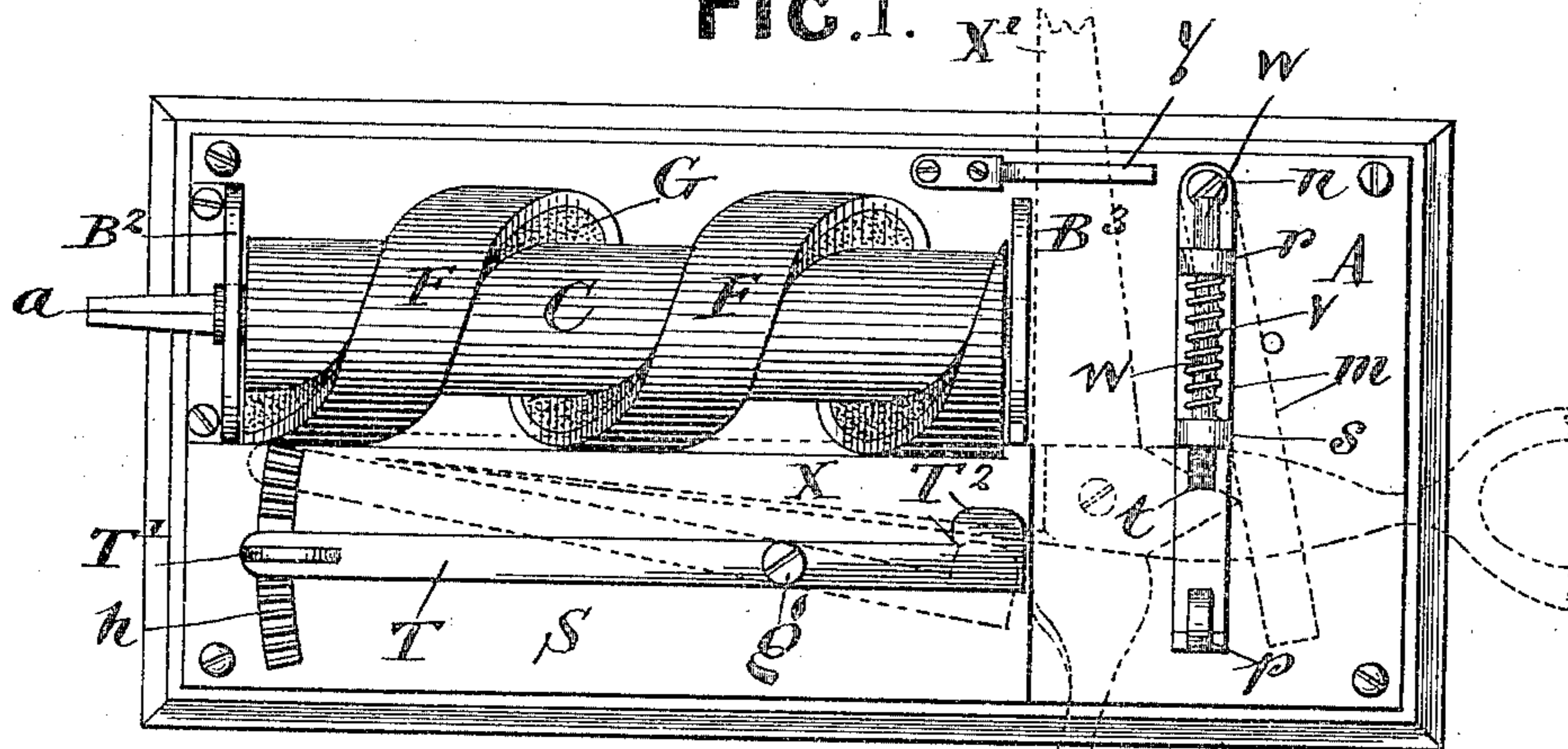


FIG. 2.

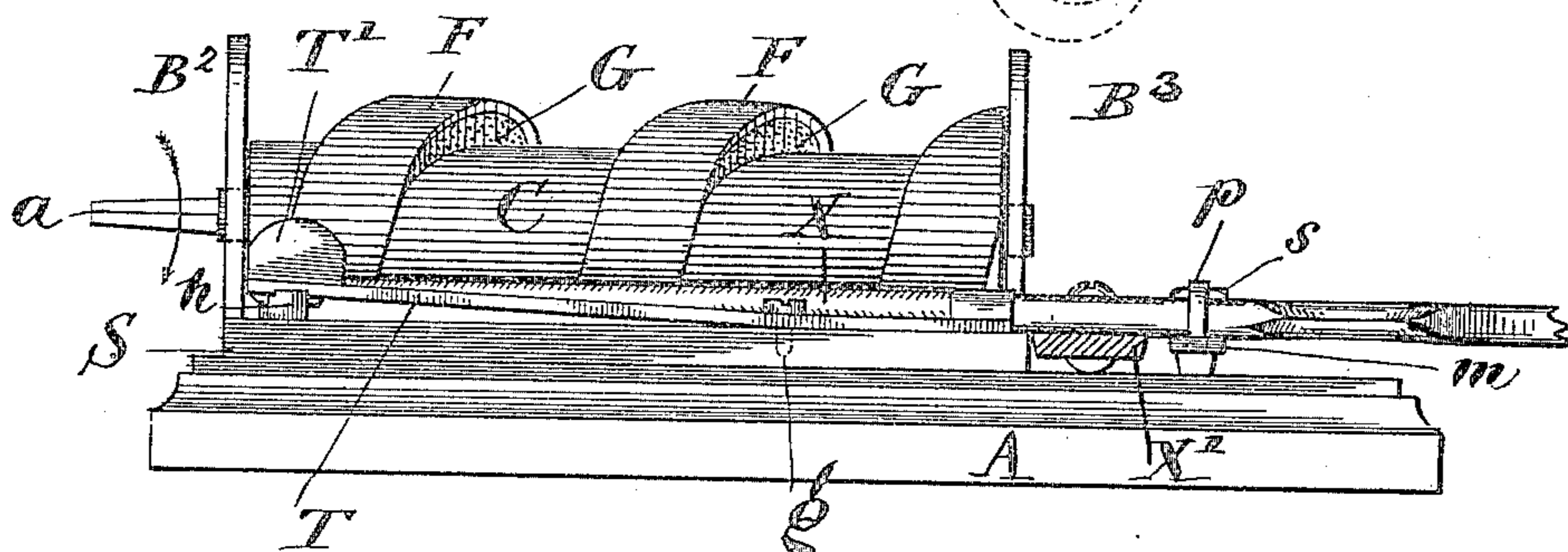


FIG. 5.

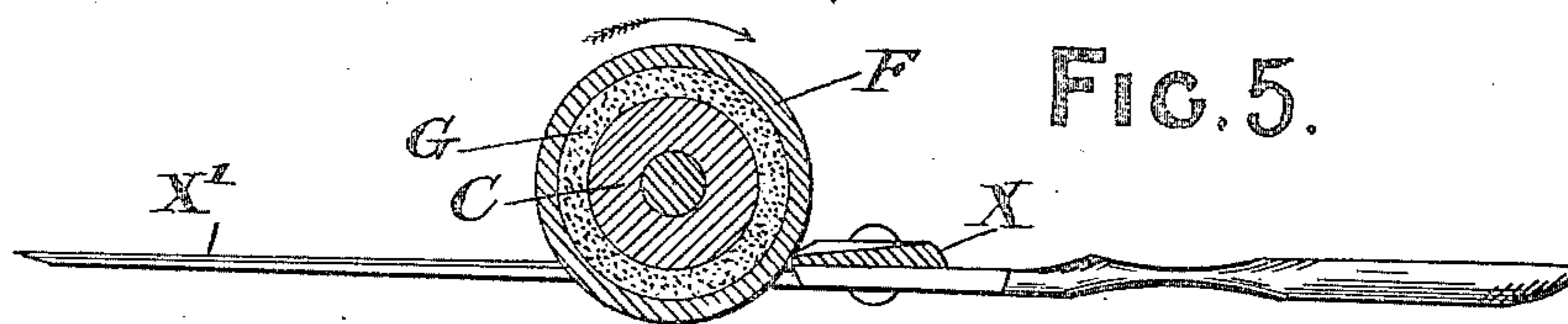


FIG. 3.

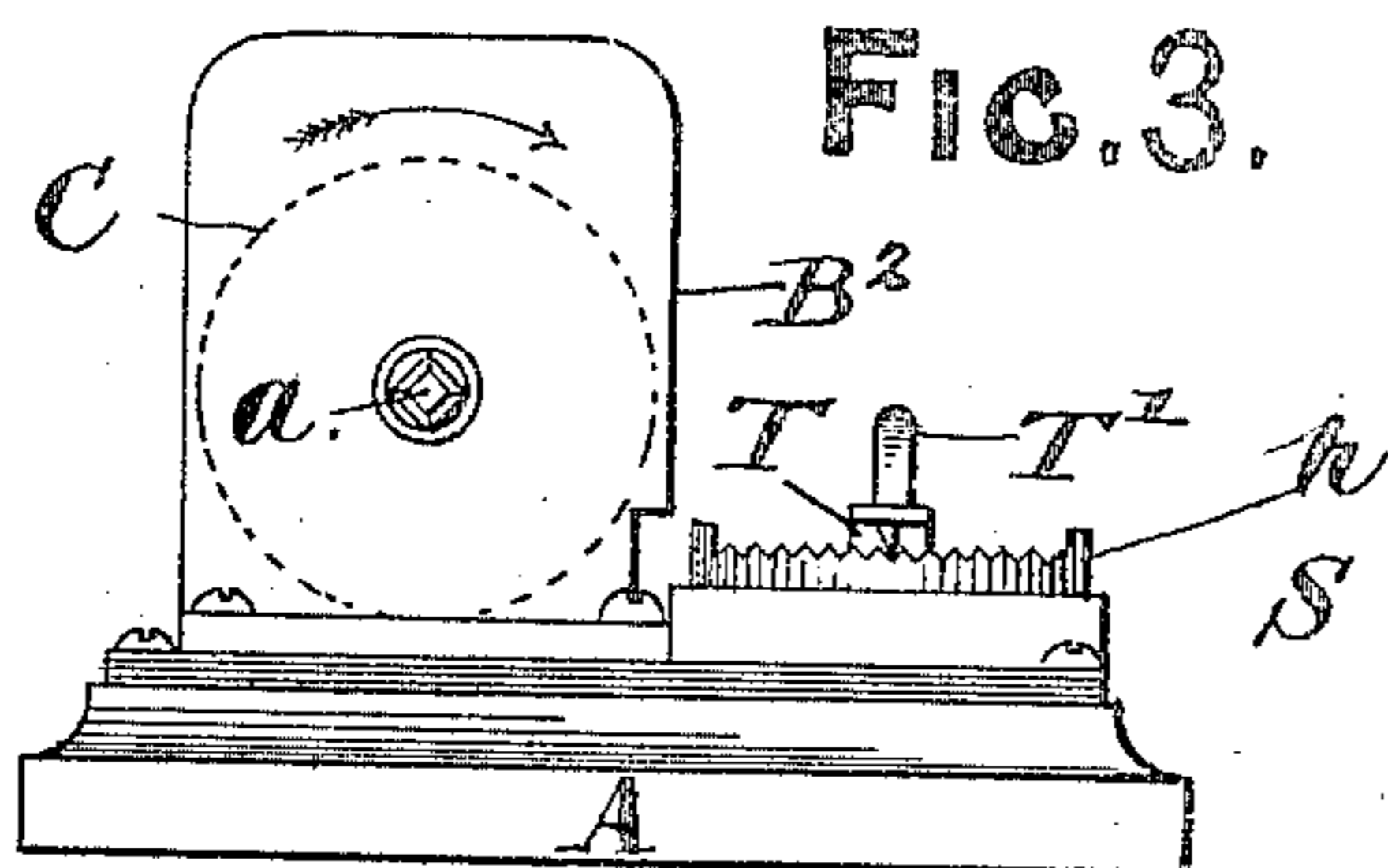
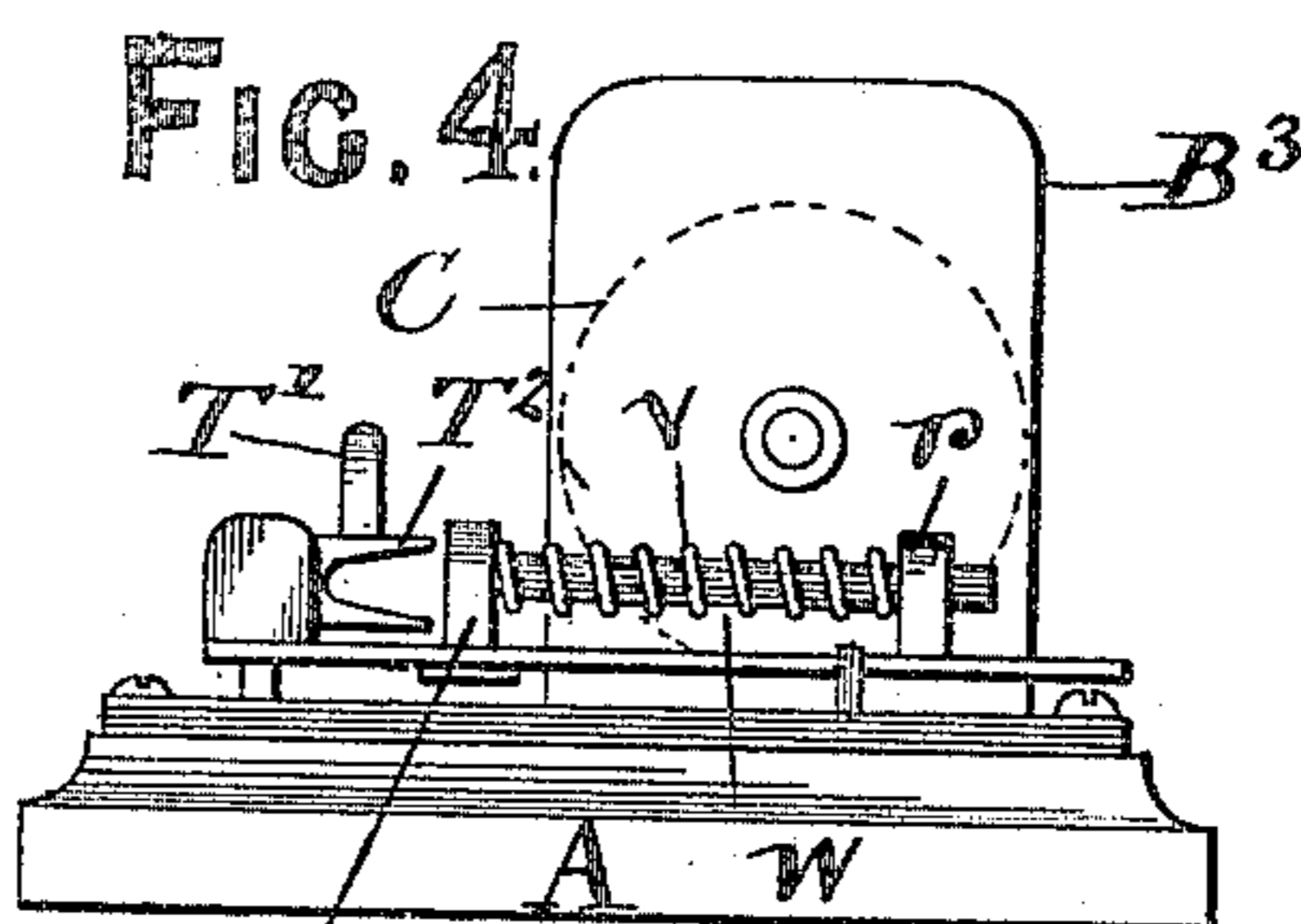


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PERCY ALBERT CRAVEN AND GEORGE CLEAVER, OF LONDON, ENGLAND.

DEVICE FOR SHARPENING AND POLISHING SCISSORS.

SPECIFICATION forming part of Letters Patent No. 684,679, dated October 15, 1901.

Application filed October 9, 1900. Serial No. 32,507. (No model.)

To all whom it may concern:

Be it known that we, PERCY ALBERT CRAVEN and GEORGE CLEAVER, subjects of Her Majesty the Queen of Great Britain, residing at 19 Ludgate Hill, in the city and county of London, England, have invented a new or Improved Useful Device for Sharpening and Polishing Scissors, (for which we have applied for patent in Great Britain, No. 7,578, dated April 24, 1900,) of which the following is a specification.

The invention consists in the features and combinations of parts hereinafter described, and particularly pointed out in the claim.

Figure 1 is a plan view, while Fig. 2 is a side elevation, of our sharpening apparatus when adapted for receiving, holding, and sharpening the blades of scissors, shears, and the like, the former view showing by dotted outline the position of a pair of scissors or shears when being sharpened, while the latter view shows the position of such scissors or shears by full lines, partly in section. Fig. 3 is an end elevation of Figs. 1 and 2 as it would appear when viewed from left to right, while Fig. 4 is an end view as it would appear when seen from right to left. Fig. 5 is a section taken through any part of the roller and blade to show the relative positions of the said blade and roller during the sharpening process.

In carrying out our invention we employ a roller C, having a helical surface F of leather or other suitable material. This surface is mounted upon a backing of rubber or like elastic material G to allow the outer surface to yield when required. These parts F and G surround the central part of the roller C and are united thereto by cement. This roller C is carried in bearings formed in standards B² and B³, which said standards need be only half the width of those needed when two rollers are used, as in Figs. 1 and 2, the said roller being provided with a helical surface or surfaces F and G, as in the manner previously described, or substantially so. In the space occupied by the second roller in the previous arrangement we place and fix a plate S of a depth corresponding to that of the probable thickness of a blade of the scissors or shears to be sharpened, and upon this we mount a lever-arm T, pivoted at a point g,

one end of which said lever-arm is provided with a vertical finger-hold T', while its opposite end has a horizontal bifurcated projection T², adapted to embrace the back edge of the blade of the scissors or shears while being sharpened. The end of the arm T having the finger-hold T' rides upon a serrated, notched, or toothed sector h and is so constructed underneath as to engage with any one of the said serrations, notches, or teeth and remain so engaged by the springiness of this end of T occasioned by the point of connection g.

Upon the space at the back end of the base A is pivotally mounted at a point n the one end of an arm m, the opposite end of m being provided with a vertical finger-hold p. The upper surface of the said arm m is provided with a fixed lug r and a lug s, the latter adapted to slide in a longitudinal groove t in m, the two lugs being normally separated by the tension of a spiral spring v, surrounding a rod w, connected to the lug s and passing through a hole in the lug r.

Assuming that the blades of a pair of scissors or shears are to be sharpened, the lever-arm T would be placed in the position shown by dotted outline in Fig. 1, which would permit one of the blades—say X—of the scissors or shears to be placed in an existing space between the plate S and one side of the helical roller, while the handle of the same blade would rest upon the arm m behind the lug s, and at the same time the free end of the other blade X would be caused to engage beneath a spring-plate y, fixed upon the base A. The finger-hold end of the lever-arm T would then be passed along the serrated surface h until its bifurcated opposite end T² had engaged with and grasped the back of the blade X and pushed its cutting edge close up against the helical surface or surfaces F of the roller in such a position that the curve of the said helical surface fits upon the angled cutting edge of the blade X, as shown in Fig. 5, the said lever-arm retaining the blade in this position by reason of its engagement with one of the teeth of the surface h, and such force as would be used in placing the blade X in this position would cause its handle to push the lug s toward the lug r against the tension of the thereby-compressed spring v, the backward

pressure of the said spring and the forward pressure of the lever-arm T serving to place the whole length of the cutting edge of the blade X in close contact with the helical surfaces of the roller.

The end of the roller carried by the standard B² is extended to form a hold α , as in the previous arrangement, for the reception of a crank-handle for rotating the same, and the shear or scissor blade would be sharpened by rotating the said roller in the direction indicated by the arrows in Figs. 2, 3, and 5. Any suitable grinding medium or material may be fixed or spread upon the helical surface F, or the said surface F may itself be formed of such a material or substance to facilitate the sharpening of the blade. The position of the blades X and X' may be transposed when X has been and X' requires sharpening.

We may by a slight modification of the dimensions and disposition of the said roller so construct and arrange our said invention as to be adaptable for use in cleaning and polishing the blades of table and like knives, scissors, shears, and the like.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is—

The improved device or apparatus for sharpening the blades of scissors, shears, and the like, consisting of the combination of a base A supporting standards B² and B³, the latter forming bearings for a roller C, having a helical surface F, with means for rotating the said roller, and means for supporting the blades of a pair of shears, scissors or the like; while being sharpened, such means consisting of a spring-plate y , a lever-arm T with bifurcated end T² and arm m with spring-lugs and fixed lug r , substantially as herein described and shown.

In witness whereof we have hereunto set our hands in presence of two witnesses.

PERCY ALBERT CRAVEN.
GEORGE CLEAVER.

Witnesses:

GEORGE THOMAS HYDE,
HENRY CONRAD HEIDE.