

No. 780,526.

PATENTED JAN. 24, 1905.

G. A. REITZ.
SCISSORS.

APPLICATION FILED MAR. 31, 1904.

Fig. 1.

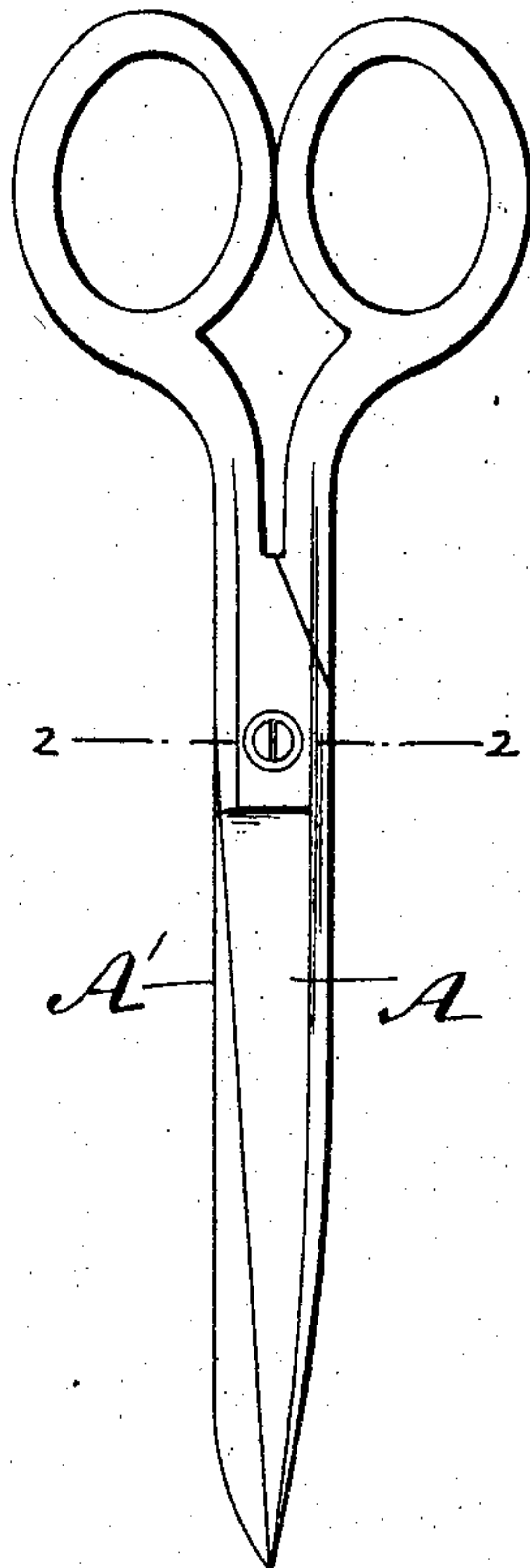


Fig. 2.

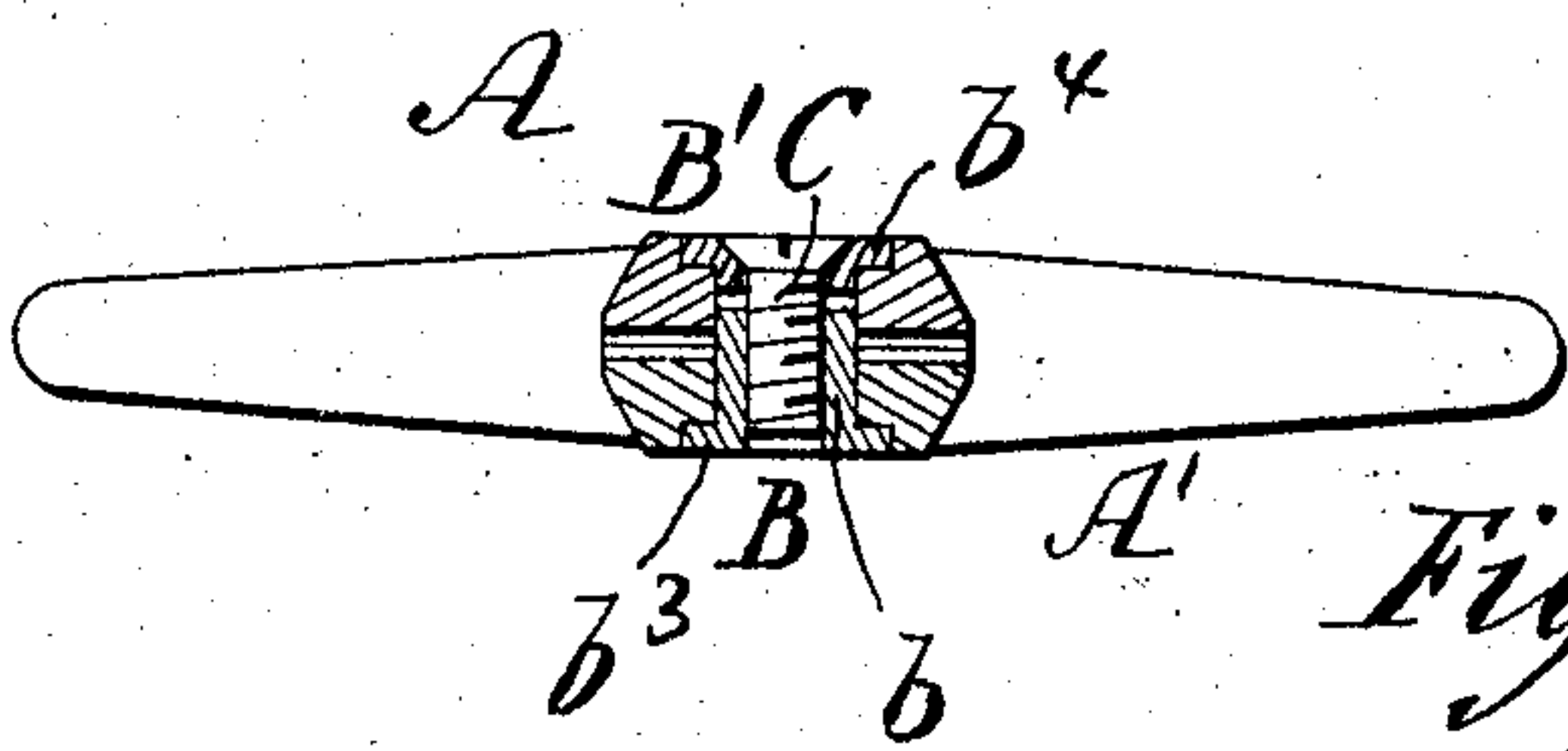
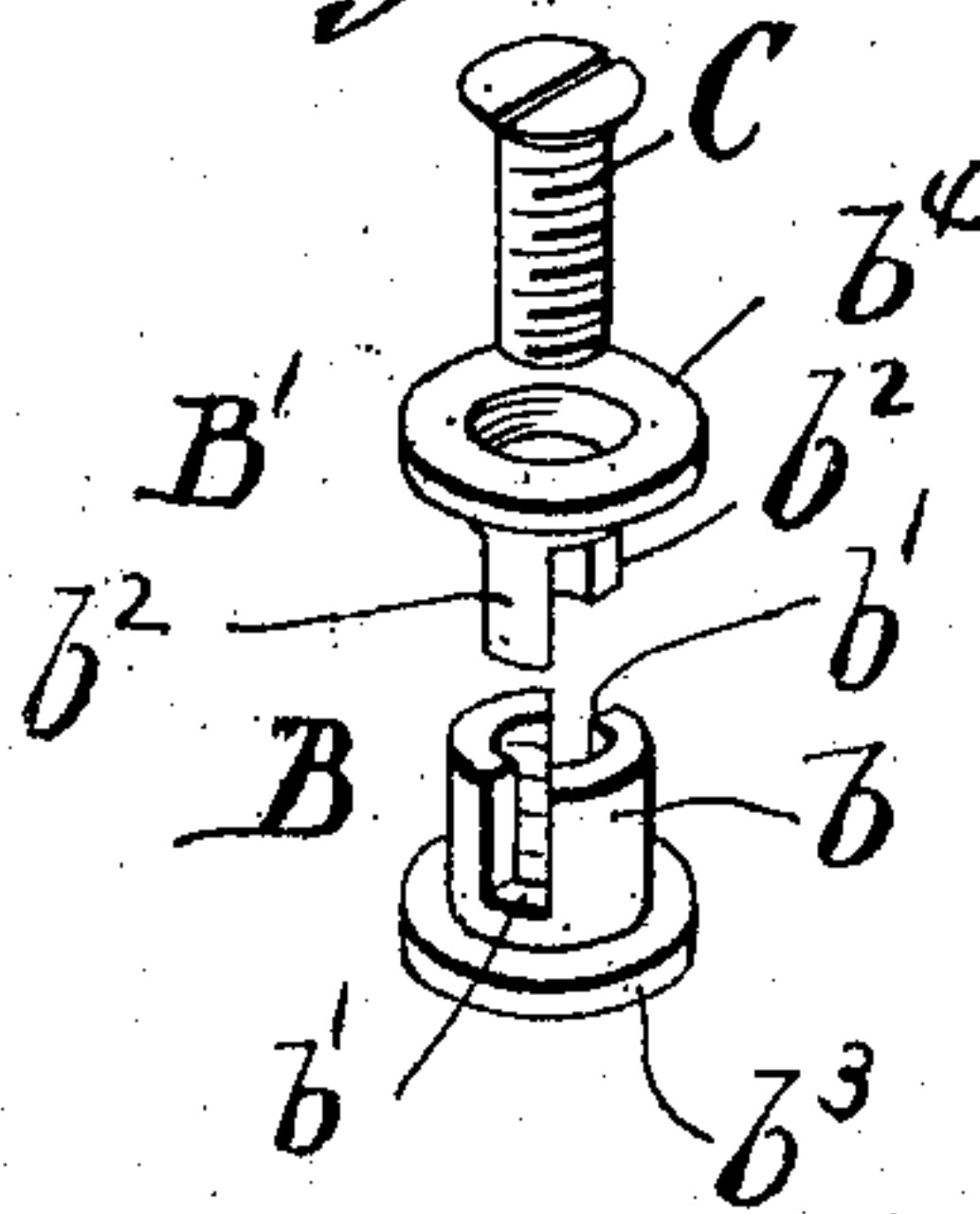


Fig. 5.



WITNESSES:
B. Patterson.
W. Shipley

Fig. 3.

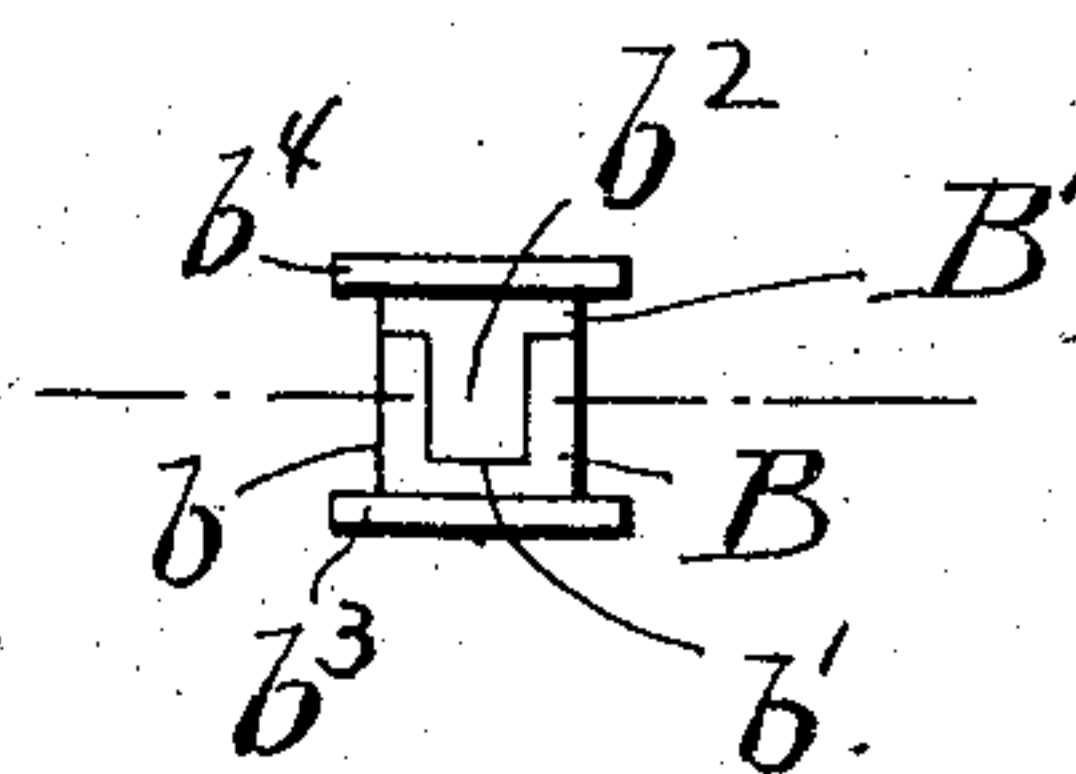
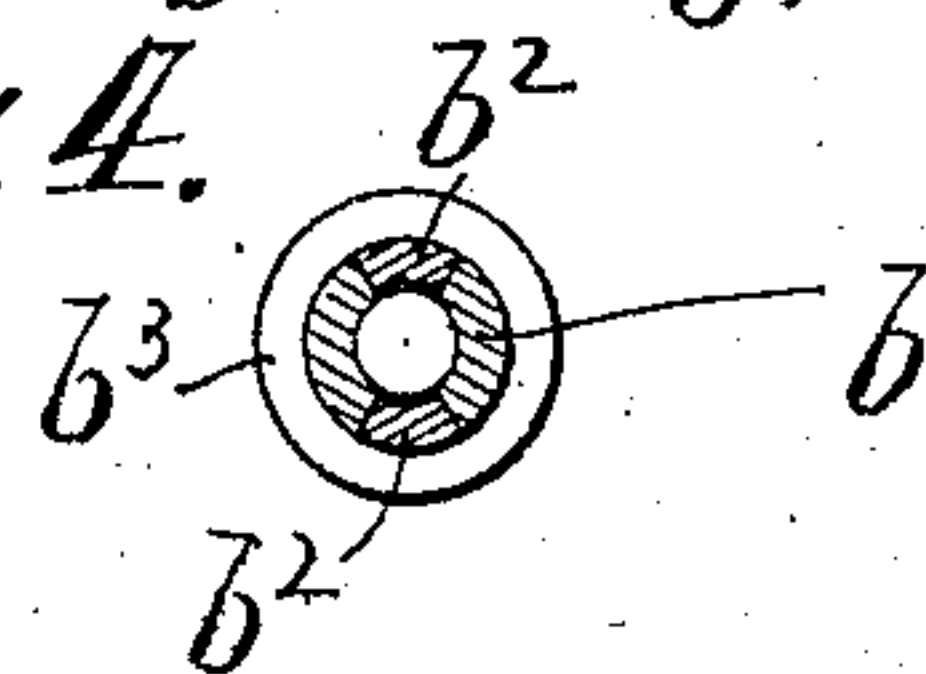


Fig. 4.



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GEORGE AMBROSE REITZ, OF LYNNPORT, PENNSYLVANIA.

SCISSORS.

SPECIFICATION forming part of Letters Patent No. 780,526, dated January 24, 1905.

Application filed March 31, 1904. Serial No. 200,863.

To all whom it may concern:

Be it known that I, GEORGE AMBROSE REITZ, a citizen of the United States, and a resident of Lynnport, county of Lehigh, and State of Pennsylvania, have invented certain new and useful Improvements in Scissors, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

The present invention has reference to improvements in scissors and other devices and implements wherein a pair of members are so connected as to be capable of free pivotal movement with respect to each other; and the more important object of the present invention is to provide for such members simple and highly-efficient pivoting provision not liable to become loose through the constant turning tendency exerted on the ordinary pivoting means through the repeated opening and closing movements of the members.

As the invention can be most conveniently set forth as embodied in connection with a pair of scissors, it is so illustrated and described herein; but, as before intimated, it is adaptable for other constructions and devices, as will become more manifest after a more extended consideration of its detail features and advantages as recited hereinafter.

In the accompanying drawings, forming part of this specification, Figure 1 is a face view of a pair of scissors having my invention in connection therewith. Fig. 2 is a horizontal sectional view of said scissors, the section being taken in the plane indicated by the broken line 2 2, Fig. 1. Fig. 3 is a detail view of the pivot-bushing constituting an important feature of my invention. Fig. 4 is a horizontal section of said pivot-bushing, the section being in the plane indicated by the broken line 4 4, Fig. 3. Fig. 5 is a perspective view of the sections of the pivot-bushing and also the connecting-screw, the several parts being in such mutual apposition as to indicate the coactive relation of these parts.

As is well known with regard to scissors and other constructions embodying a pair of pivotally-connected cutting or other character of members, that when the pivot means is pre-

sented by a simple rivet the latter for many purposes is not particularly strong, and especially at the riveted head, which eventually gives to a greater or less extent, thereby resulting in such loose relation of the members that their operative capacity and accuracy are seriously impaired if not entirely destroyed. Attempts have been made to remedy these difficulties by employing as the pivot the plain shank of a screw the threaded end of which projected sufficiently beyond one of the members to receive a clamping-nut which could be riveted and when desired tightened and again riveted to take up looseness occasioned by use; but this latter, as well as other arrangements involving externally-engaged parts, are subject to frictional turning of the members in opening and closing, and are therefore unsatisfactory for the purpose for which they were primarily designed.

As disclosed more particularly in Figs. 2 to 5, the pivoting element of the scissors members A A' is prescribed by the externally-smooth barrel of a bushing consisting of the sections B B', the barrel portion *b* of the section B containing diametrically-located rectangular recesses *b'* *b'*, open at and extending from the unflanged end of said portion *b*. The barrel portion of the section B' is correspondingly cut away, but to a greater extent, so as to present two diametrically-located narrow tongues *b²* *b²*, adapted to fit snugly within the recesses *b'* *b'* of the other section, the contiguous edges of the fitted portions of the sections B B' being beveled to make such joint that the portions *b* and tongues *b²* will conjointly present a cylindrical bearing barrel or bushing. Those ends of the sections B B' which are to lie in external relation with respect to the members A A' have flanges *b³* *b⁴*, which occupy countersinks at the ends of the pivot-opening in the members. The interior surfaces of both the barrel portion *b* of the section B and of the tongues *b²* of the section B' are threaded, so that when fitted together they will present an opening the threads of which are designed to be mutually engaged by a securing-screw C, having a channeled head *c* at one end to provide for the turning of this

screw by a suitable driver and also to secure an end bearing in drawing, so that when the sections B B' are introduced in the opposite ends of the pivot-opening of the members A A', so that the tongues b^2 partially enter the recesses b' , the screws C can then be inserted through the opening in the section B' and revolved, so that its shank will take the threads of the parts of both sections and operate to draw them together and coact to so retain them that an externally-smooth pivot-barrel is provided. Additionally the flanges b^3 b^4 serve to confine the members in their pivotal relation, and with the purpose of snugly receiving the conical head of the screw the opening in the flange b^4 is countersunk, as shown most clearly in Fig. 2. Obviously all surfaces of the pivoting element directly subjected to the frictional turning movements are plain and smooth, so that there is no liability of the screw being revolved independently of the bushing.

The forming of recesses b' in the portion b of the section B less in dimensions than the remaining parts of said portion leaves sufficient metal at the barrel portion of one section as to provide a strong holding part, and thus avoid undue creaking of the engaging portions of both sections.

I do not wish to be understood as limiting myself to the particular arrangement shown and described, but reserve the right to all modifications within the scope of my invention.

Having now described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. In a scissors or other construction embodying a pair of pivotally-connected members, the combination of a pivoting device having an externally-smooth sectional bushing, comprising two sections both of which are interiorly threaded, flanged, and have interlocking tongues and slots of different widths, and a connecting-screw adapted to mutually engage both of said inner threaded sections.

2. In a scissors or other construction embodying a pair of pivotally-connected members, the combination of a pivoting device comprising an externally-smooth and internally-threaded sectional bushing having tongues which interlock, and slots with beveled edges, into which said tongues extend, the tongues of one section differing in width from the tongues of the other, both sections having outer flanges, the opening in one of which is countersunk, and a headed screw, the threaded shank of which is adapted to mutually engage both of said inner threaded sections.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 12th day of March, A. D. 1904.

GEORGE AMBROSE REITZ.

Witnesses:

WILLIAM H. REITZ,
MATILDA G. OSWALD.