

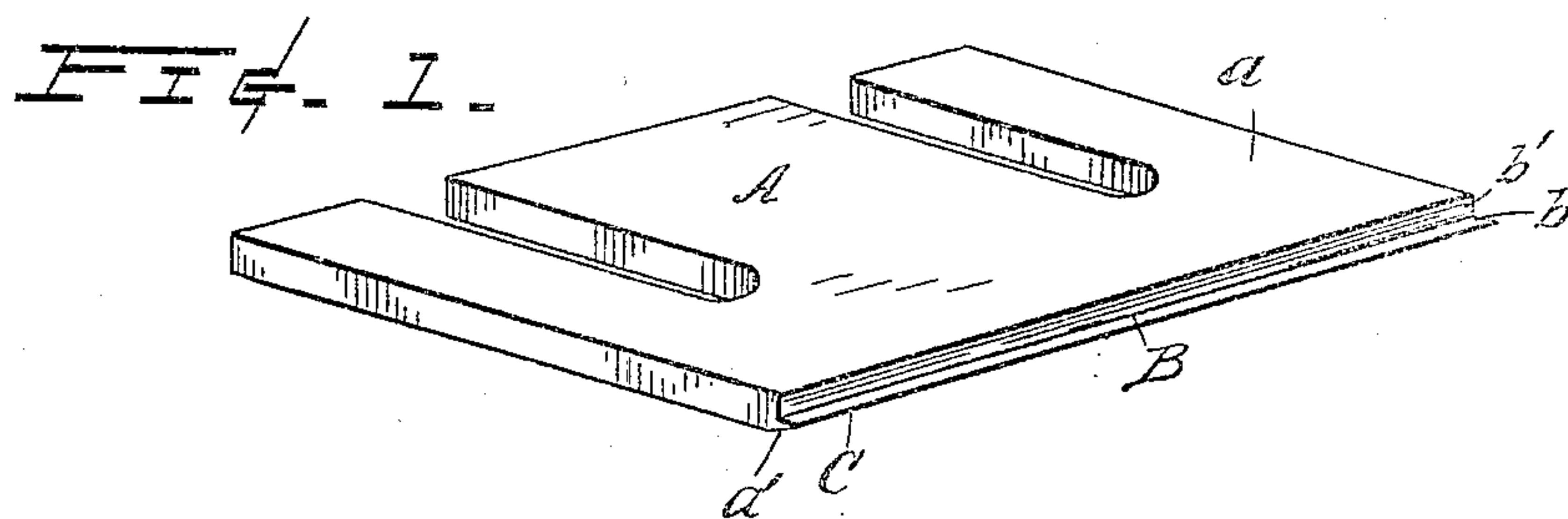
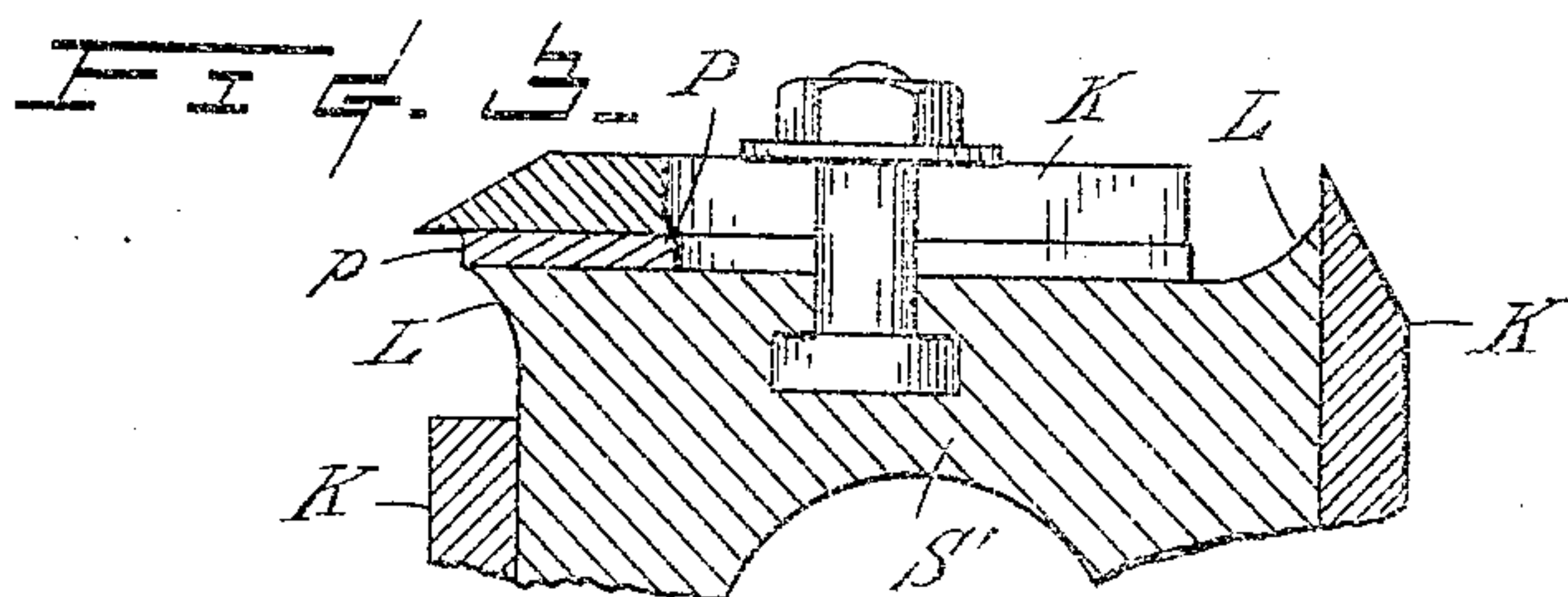
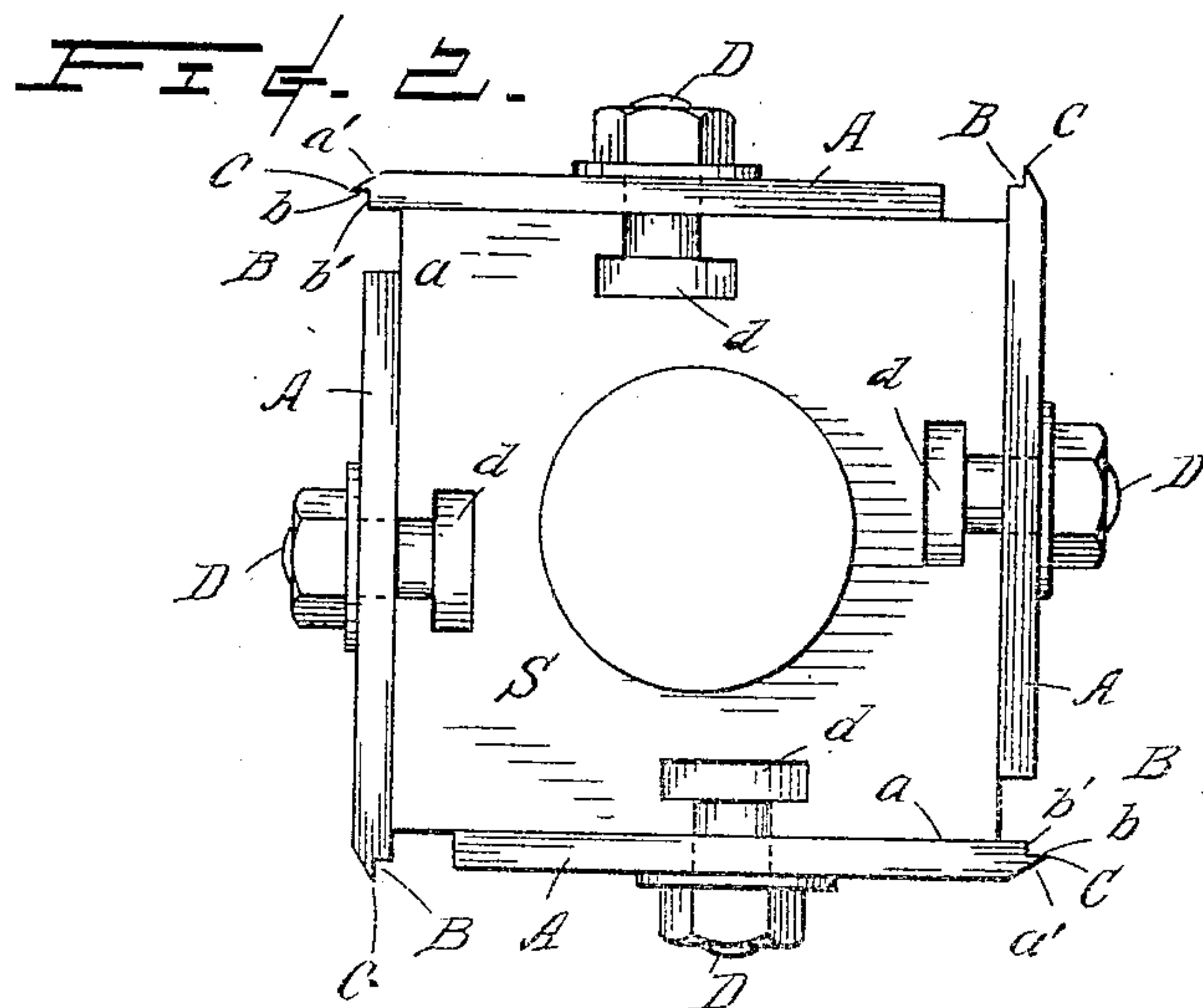
No. 805,450.

PATENTED NOV. 28, 1905.

F. L. CONFORTH.

PLANNER KNIFE.

APPLICATION FILED MAY 17, 1905.



WITNESSES:

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FRANK L. CONFORTH, OF BALLARD, WASHINGTON.

PLANER-KNIFE.

No. 805,450.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed May 17, 1905. Serial No. 260,745.

To all whom it may concern:

Be it known that I, FRANK L. CONFORTH, a citizen of the United States, residing at Ballard, in the county of King and State of Washington, have invented certain new and useful Improvements in Planer-Knives, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

10 Figure 1 is a perspective view of a planer-knife embodying my invention. Fig. 2 is an end view of a planer-head, showing such knives operatively secured thereto; and Fig. 3 is a fragmentary cross-sectional view of a planer-head with other types of knives attached.

15 My improvements have reference to planer-knives in which as hitherto ordinarily constructed the meeting edges of the advance bevel-faces with the inner faces form the cutting edge, tear or splinter the surface of the wood being dressed when revolving in a direction opposite to the grain of the wood, and leave an uneven surface.

20 The object of the present invention is the provision of a planer-knife which is capable of overcoming the above-mentioned objections irrespective of the direction of the grain of the wood, the depth of the cut, or the velocity of the feed. I attain this and other ends by the novel construction of a planer-knife which will be hereinafter described, and particularly pointed out in the appended claims.

25 In the drawings the reference-letter A represents a planer-knife having a rabbet B along its forward and inner edges, having its walls b and b' in planes, respectively, parallel with and rectangular to the knife-face a , or approximately so. The angle C, which the wall b makes with the bevel-face a' , is the cutting edge of the knife and the wall b' the chip-breaker. These knives are secured to the head S in any suitable manner, as by bolts D, having their heads d engaged in the head T-slots, as ordinary.

45 In operation the chips are impinged against the wall b and are thereby broken or crumbled, thus preventing the splintering or tearing of the wood fibers and insuring a smooth surface being made.

Referring now to Fig. 3, I show the ordinary planer-knife K, which is adapted only for cutting the forward ends of the chips and prying the same from the wood, and which last operation is commonly aggravated by the provision of the lips L on the head S'. I am aware that heads have been utilized without such lips and cutting edges of the knives positioned at a short distance in advance of the head-face, which is rectangular to the knife with the view of preventing the prying off and breaking of the chips, as aforesaid; but such contrivances are soon abandoned from the fact that the chip-points are driven into the seam between the knife and the head and shortly unfits the knives for accomplishing any work. Plates, such as P, placed between the knives and the head and having rectangular front faces p have also been tried; but are even less satisfactory than where the knives are secured directly to the head, as the seams still remain and are even more readily opened through the multiplying of parts p , causing increased vibrations of the part when the machine is running. With my invention, however, there is no seam in the plane of the cutting edge of the knife, the breaking-wall receiving the impact of the chips. The head may be made without the lips above alluded to and taking the wear from the head due to the abrasion of the chips and extending its length of usefulness.

The thickness of the knives constructed according to my invention can be made of less than half the thickness required in other types known to me and producing much better results.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a one-part planer-knife provided with a recess extending its entire length and positioned at the inner side of the cutting edge said recess having one wall at right angles to the inner surface of the knife and the other wall in a plane parallel to the said inner surface of the knife.

2. A one-part planer-knife, provided with a rabbet B having a wall b parallel with the

knife-face a and a wall b' perpendicular thereto, said first-named wall forming with a bevel-face a' of the knife the cutting edge, substantially as described.

- 5 3. As a new article of manufacture, a one-piece planer-knife provided with a beveled edge and a recess adjacent the beveled edge, said recess having its walls at right angles

one to the other, and said recess being of less depth than said beveled edge. 10

In testimony whereof I affix my signature in presence of two witnesses.

FRANK L. CONFORTH.

Witnesses:

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