

No. 733,327.

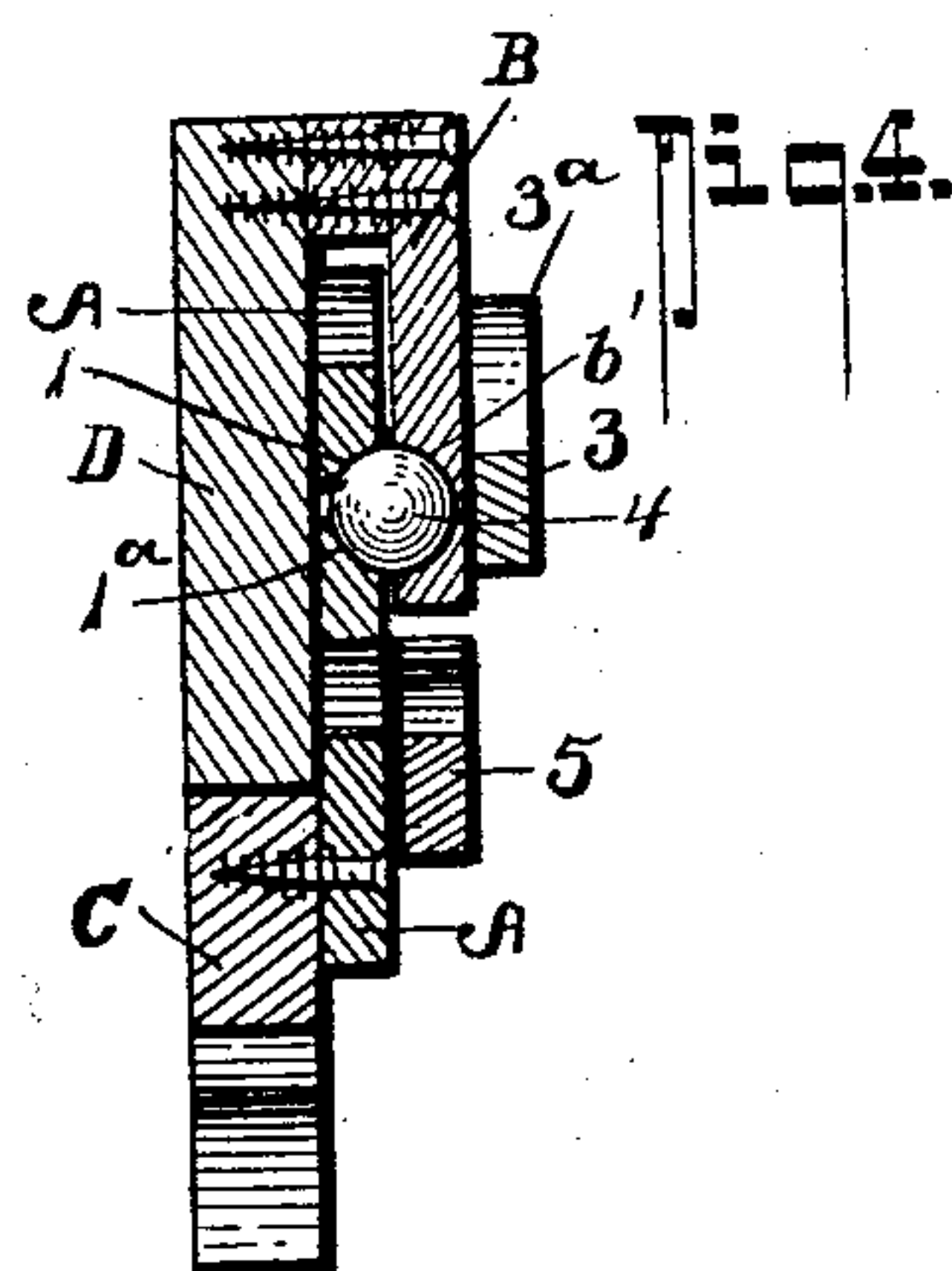
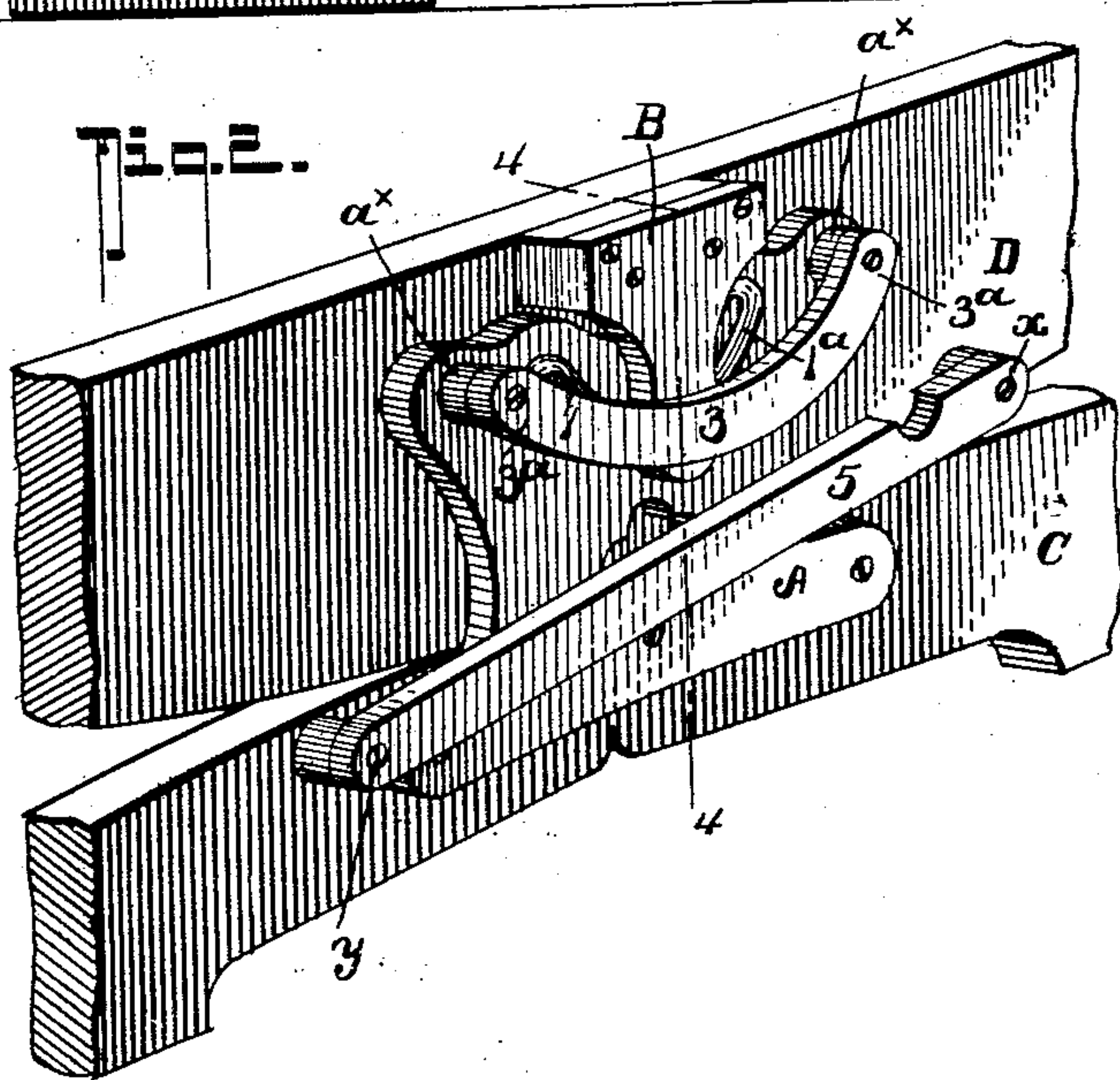
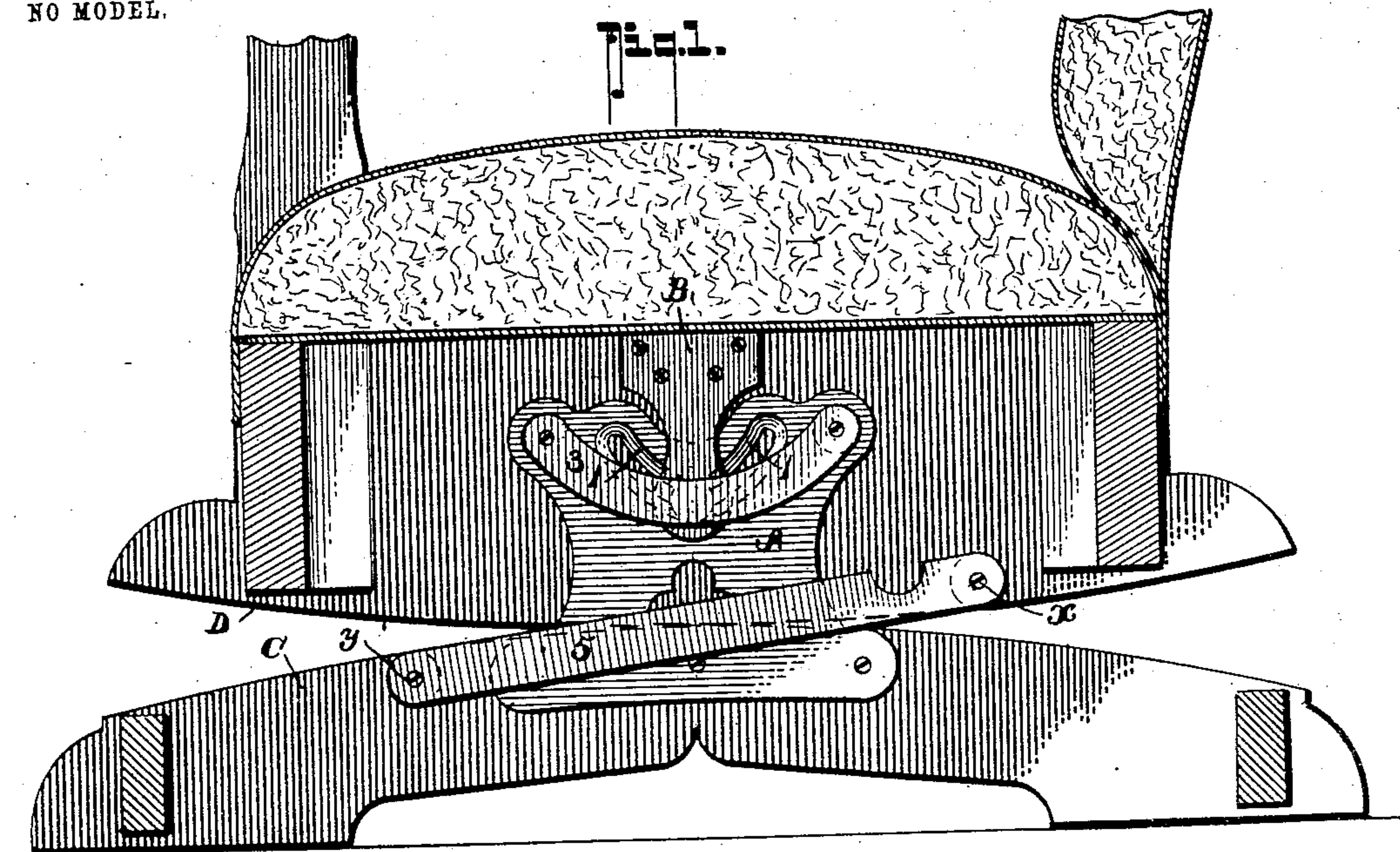
PATENTED JULY 7, 1903.

O. C. MOORE.
ROCKER JOINT.

APPLICATION FILED APR. 18, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



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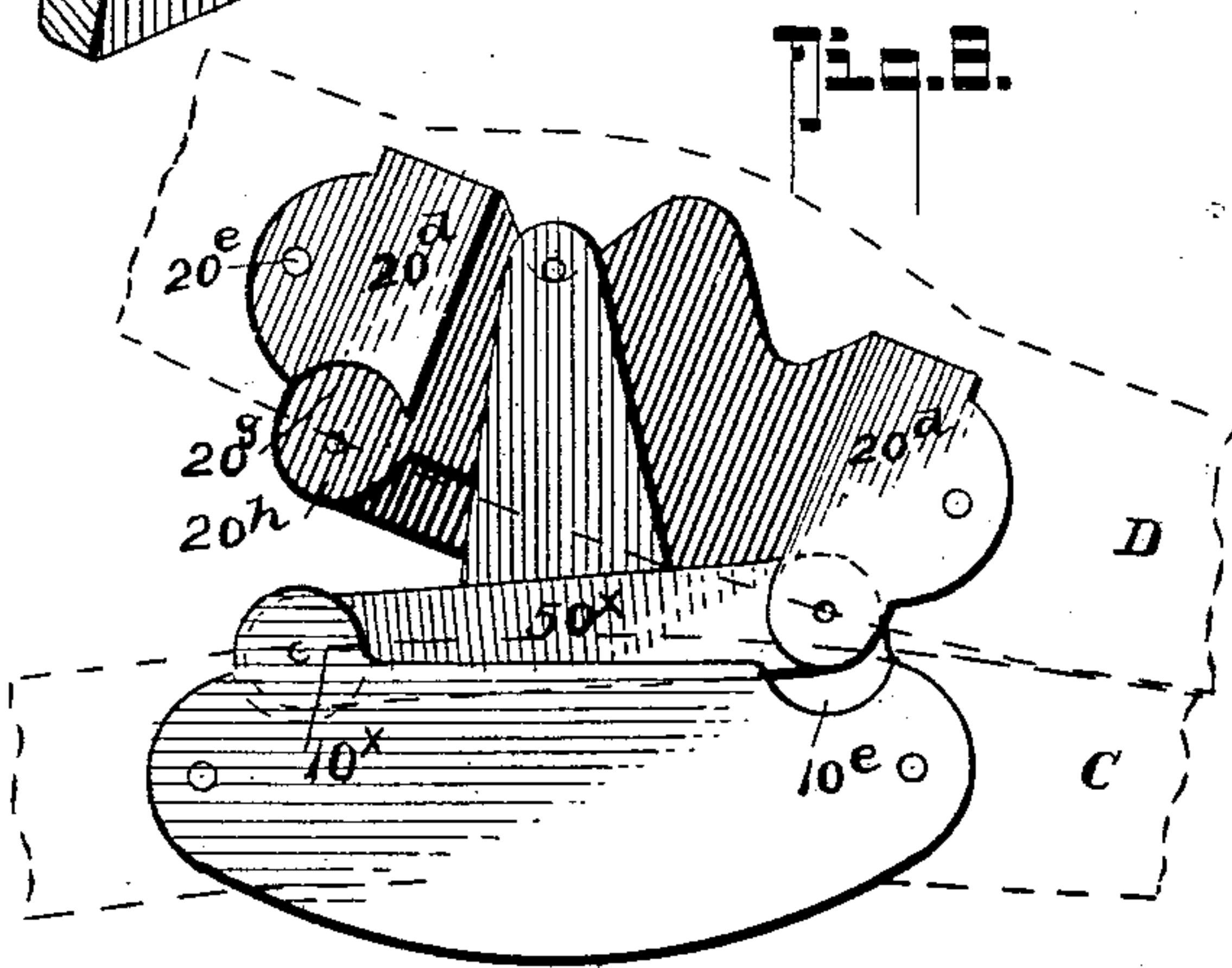
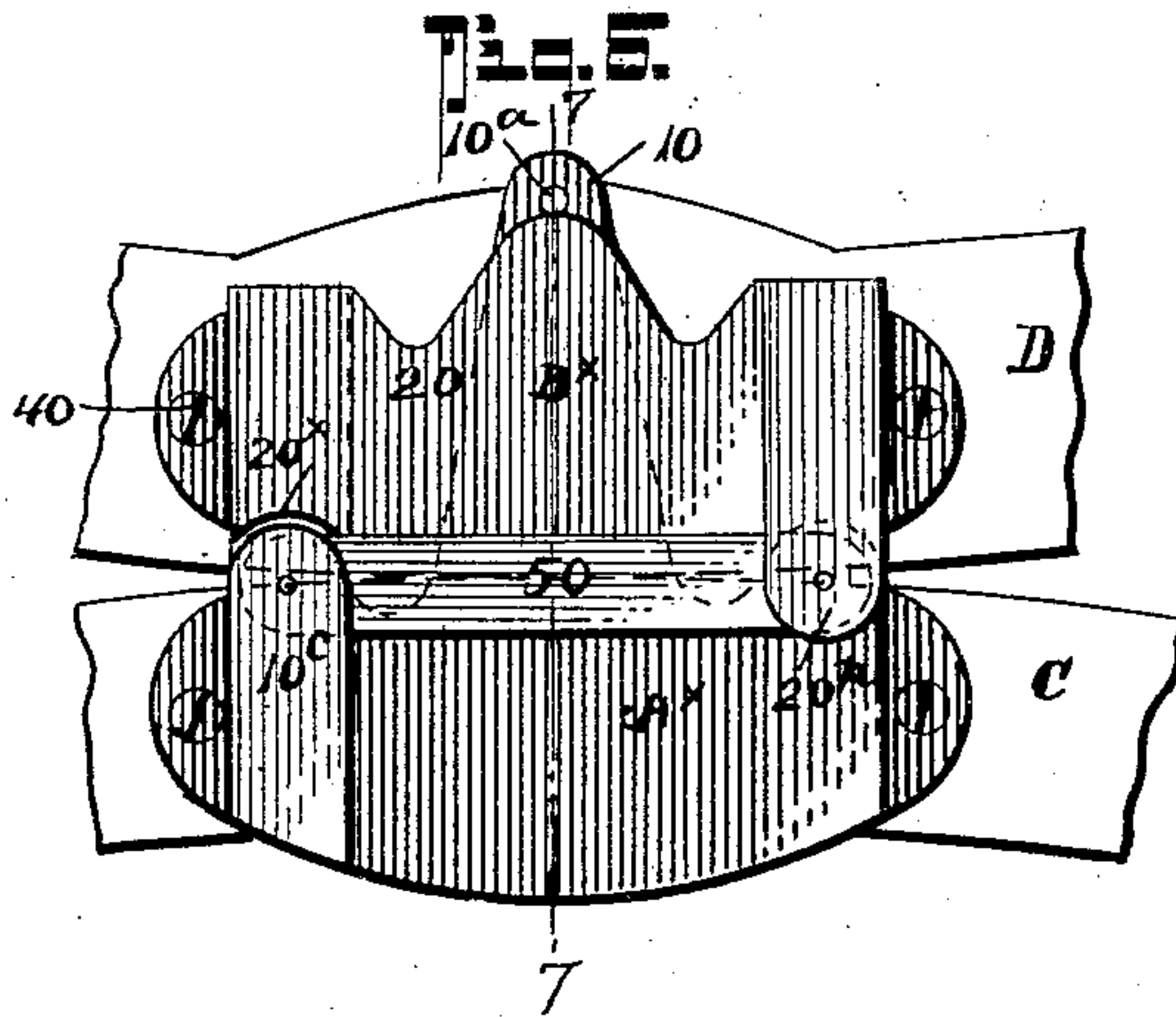
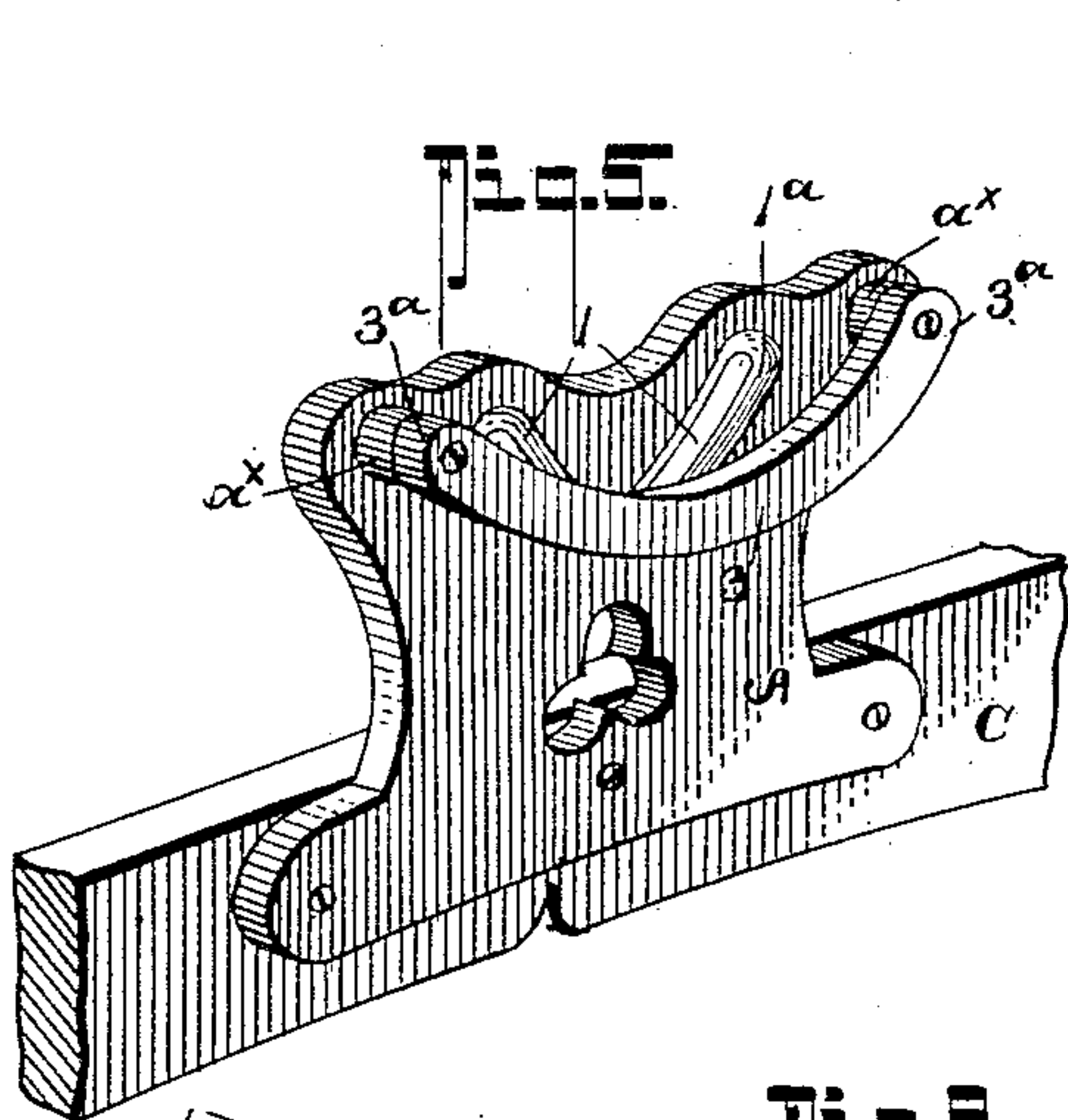
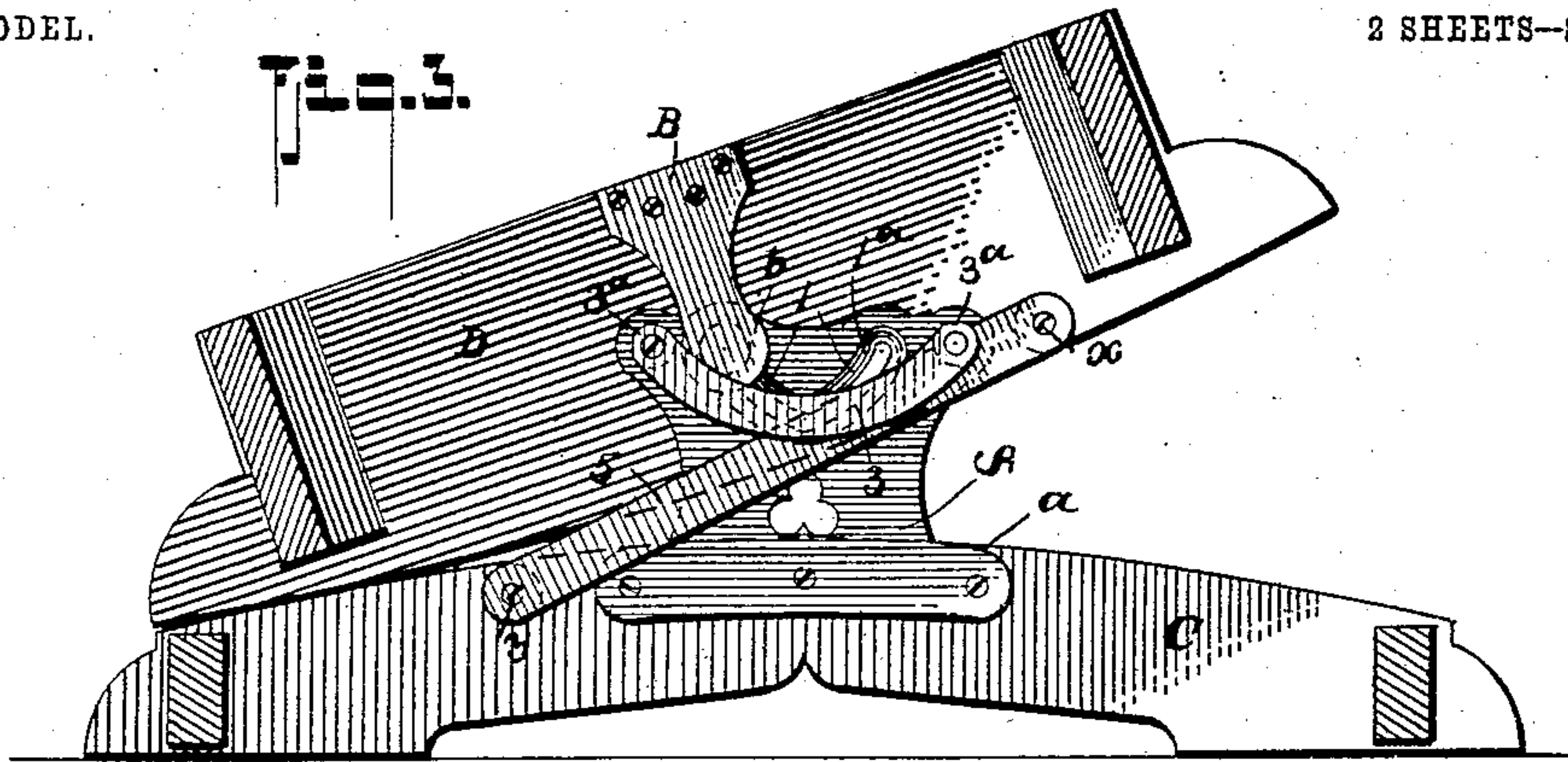
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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

OTHO C. MOORE, OF NORFOLK, VIRGINIA, ASSIGNOR OF ONE-HALF TO
JAMES BARKLEY, OF NORFOLK, VIRGINIA.

ROCKER-JOINT.

SPECIFICATION forming part of Letters Patent No. 733,327, dated July 7, 1903.

Application filed April 18, 1902. Serial No. 103,590. (No model.)

To all whom it may concern:

Be it known that I, OTHO C. MOORE, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented a new and Improved Rocker-Joint, of which the following is a specification.

My invention seeks to provide a simple, inexpensive, durable, and effective means for controlling the action of platform rocking-chairs, cradles, nursery-cribs, or other like apparatus requiring similar motion.

My present invention in its generic nature comprises two castings or stamped metal members, one for the base or stationary member of the rocking-chair or other like object and the other for the rocking member supportable upon the base member, said two members being especially designed to cooperate with each other in a manner whereby to provide for an easy, uniform, and safe rocking action and to maintain the rockers from spreading during motion or at rest and to permit the said rocker members to operate without danger of binding at any point in the arc described by them in action.

In its more complete form my invention embodies a pair of opposing metal plates or members and a supplemental connection for joining the rocker and base portions having such correlative construction that in operative condition they produce a strong and compact rocking joint, which also acts to maintain the rocking members in their proper cooperative position without the use of springs or equivalent devices.

My invention in its more subordinate nature consists in certain details of construction and peculiar combination of parts, all of which will hereinafter be fully described, and specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section of a portion of a rocking-chair equipped with my improved rocker-joint. Fig. 2 is a detail perspective view of the joints applied for use. Fig. 3 is an elevation of said joint, the rocking member being shown tilted to its extreme movement in one direction. Fig. 4 is a transverse section of the same on the line 4 4 of Fig. 2. Fig. 5 is a detail perspective view of the lower or stationary joint member. Fig.

6 is a side view, and Fig. 7 a cross-section on the line 7 7 of Fig. 6, of a modified construction of my invention, hereinafter referred to. Fig. 8 is a side view of the construction shown in Figs. 6 and 7, the rocker member being shown tilted.

In the practical application of my invention the same comprises two members A and B, of metal, cast, stamped, or otherwise formed. The member A, which hereinafter will be termed the "stationary member," is fixedly secured to the inner side of the stationary or base frame C in any suitable manner. To provide a rigid bearing for the member A, its bottom end is widened, as at *a*, and curved to fit flush with the concaved upper edge of the base C, as shown. The upper end of the member A is extended a suitable distance above the base C, and the said upper end is formed with a V-shaped slot 1, the inner or bearing surface 1^a of which is concaved in cross-section, the reason for which will presently appear. Near the ends of the V-slot the member A has inwardly-projecting hubs *a*^x, to which the ends 3^a 3^a of a curved guard member 3 are secured. Between the curved guard 3 and the slotted portion of the member A is slidably held the pendent end *b* of the upper rocker-joint member, the upper end of which is fixedly secured to the rocker-frame D.

The member *b* has a concaved central seat *b*['], that opposes the concaved surface of the V-slot in the member A, and in said seat is held a ball-bearing 4, adapted to ride on the V-slot and which forms, as it were, an inwardly-extending projection for the end *b* of member B for engaging the V-slot and properly guiding the said end *b* in its movements over the member A. The angularity of the V-shaped slot, the length of the two branches of said slot, and the correlative opposing concaved surfaces of the members C and D in practice are so disposed and cooperate in such manner that when the rocking frame D is tilted to the extreme forward motion the ball-bearing projection on the stem or part *b* of the member B will engage with that end of the branch of the V-slot at the tilted side of the rocker-frame D, (see Fig. 3,) and when said frame is rocked to the limit in the other direction the roller projection will engage with

the end of the other branch of the V-slot, and hence a further tilting of the frame D beyond a predetermined limit is avoided. To further prevent undue tilting of the member D and to also hold the several parts from undue lateral motion or strain, a supplemental connecting member 5 is provided in the nature of a flat bar having a pivotal connection with the base C at one side of the member A, held to extend over the member A, and pivotally joined at the other end and at the other side of the member A to the rocking member D. The connection of the member 5 is such relatively to the opposing curved faces of the members C and D and the upper end of the member A that the member D reaches the limit of its tilt in the rearward direction before the pivotal point x of the said member 5 reaches the horizontal plane of its pivot-point y , and said point x when the member D is tilted to its limit in the other direction engages the upper end of member A. (See Fig. 4.)

In Figs. 6, 7, and 8 I have illustrated a modified construction of my invention which differs from the preferred construction in that the member A^x has an integral centrally-disposed and upwardly-extending arm 10, and the member B^x has a body portion 20, that straddles the arm 10 and has its upper edge formed with an inverted-V-shaped projection to cooperate with a stud 10^a on the arm 10. In this modified form the member A^x has a vertical bifurcated extension 10^c, and adjacent said extension the member has a concaved seat 10^e in a plane with the extension 10^c. At each end the member B^x has an inwardly-extending flange 20^d, the inner edges of which have integral apertured ears 20^e to receive the fastening-screws 40, and said member B^x also has a concaved seat 20^x to engage and rock on the bifurcated extension 10^c of the part A^x when it (the member B^x) is shifted to one of its tilted positions. At the end opposite the seat 10^e the member A^x has an upwardly-extending lug 10^x to cooperate with the concaved portion 20^e on the member B^x , and in line with the said seat 20^e said member B^x has an outwardly-projecting bifurcated flange 20^h in a plane with the bifurcated extension 10^c of the member A^x . Two supplemental members (indicated by 50 and 50^x) are used in this modified form that cross and connect with bifurcated portions of the two members A^x and B^x and which serve practically the same function as the supplemental connection shown in Fig. 5.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains.

It will be noticed in my construction of rocker-joint that no springs or other like means are necessary to control the oscillatory movement of the rocker, and by reason of the

peculiar construction of the said joint the rocker-frames are maintained in perfect vertical alinement with the base portions without material lateral strain on the parts.

Further changes in the details of construction of my invention may be made without departing from the scope of the appended claims.

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

1. In a rocking-chair, the combination with two opposing members one of which rockably engages the other, of a casting rigidly secured to one of the opposing members and projected at right angles therefrom, said casting having a V-shaped bearing, a second casting rigidly connected to the other member, a member carried by the said second casting for engaging and riding in the aforesaid V-shaped bearing, means for holding the two castings in a cooperative arrangement, said means including a link member pivotally joined at one end to one of the opposing rocker members at one side of the V-shaped bearing and similarly joined at the other end to the other opposing member at the other side of the V-shaped bearing, as set forth.

2. A joint for rocking-chairs comprising a base portion having a vertically-extended member, a rocking frame mounted upon the base portion having a member for opposing the said vertically-extended member of the base, one of the said members having a V-shaped guide-surface, a supplemental member carried by the other members for engaging the V-shaped guide-surface, and a supplemental means for limiting the tilt of the rocker-frame, said means consisting of the link 5, secured at one end to the base, and at the other end to the rocking frame, and the curved guard 3, and the stops a^x at the ends thereof, secured to the vertically-extended member of the base, all being arranged substantially as shown and for the purposes described.

3. The combination with the base C, and the member A, secured centrally thereof, and projected vertically therefrom, said member having a V-shaped slot in its upper end in a plane with the base C, said slot being concaved in cross-section; of the rocking frame D, the member B fixedly secured thereto, said member having a pendent portion adapted to project over the slotted end of the member A, said projected portion having a concaved seat in line with and opposing the V-shaped slot in the member A, a ball-bearing held in the said seat and slot, and means for holding the member B up against the member A, all being arranged substantially as shown and for the purposes described.

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