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PATENTED FEB. 23, 1904.

J. J. BUTTERWORTH.
GAGE.

APPLICATION FILED FEB. 12, 1903.

NO MODEL.

Fig. 3.

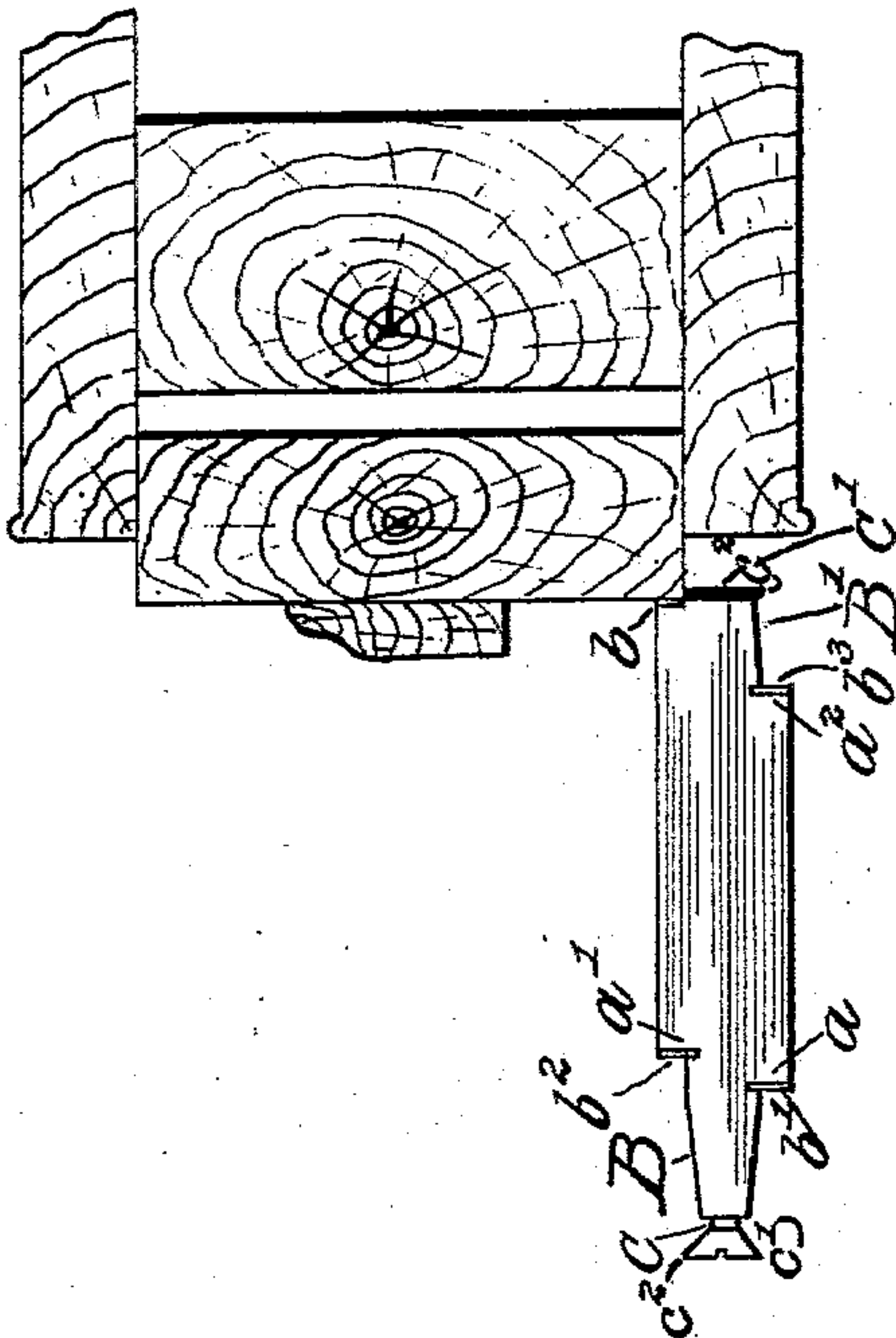


Fig. 1.

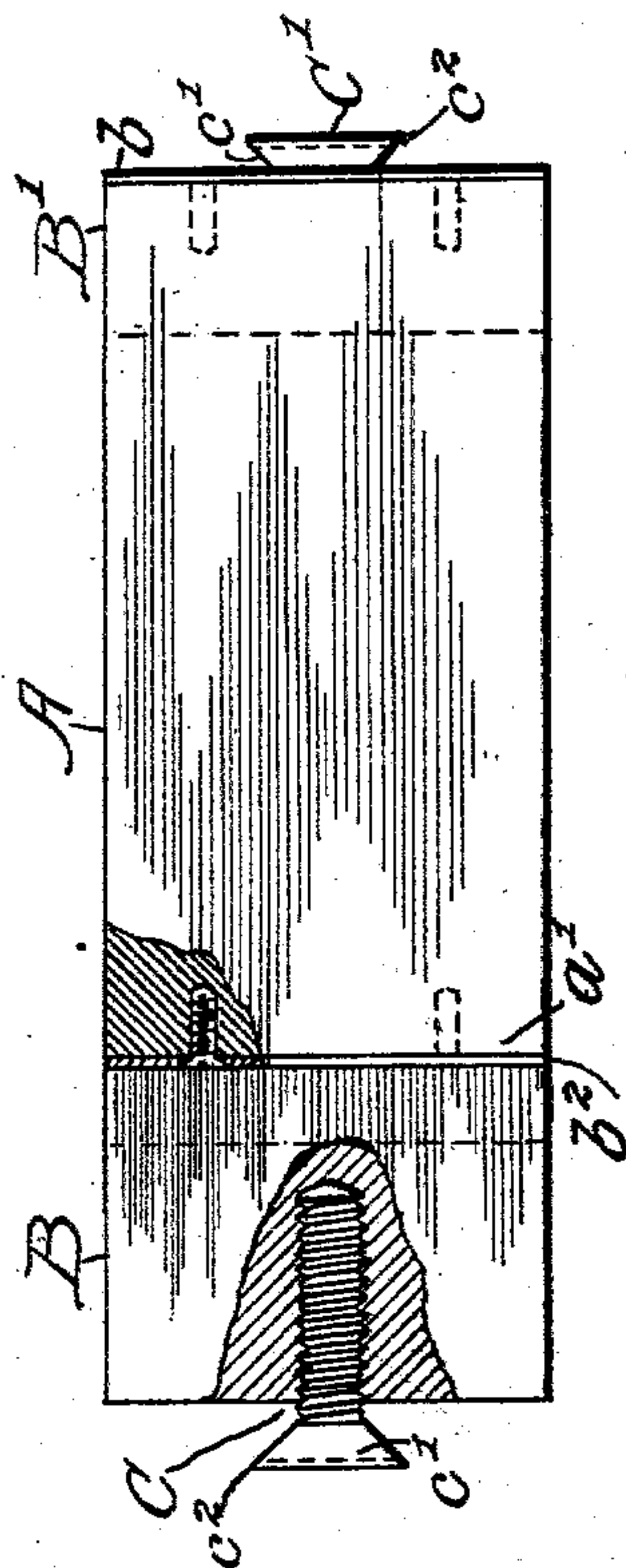
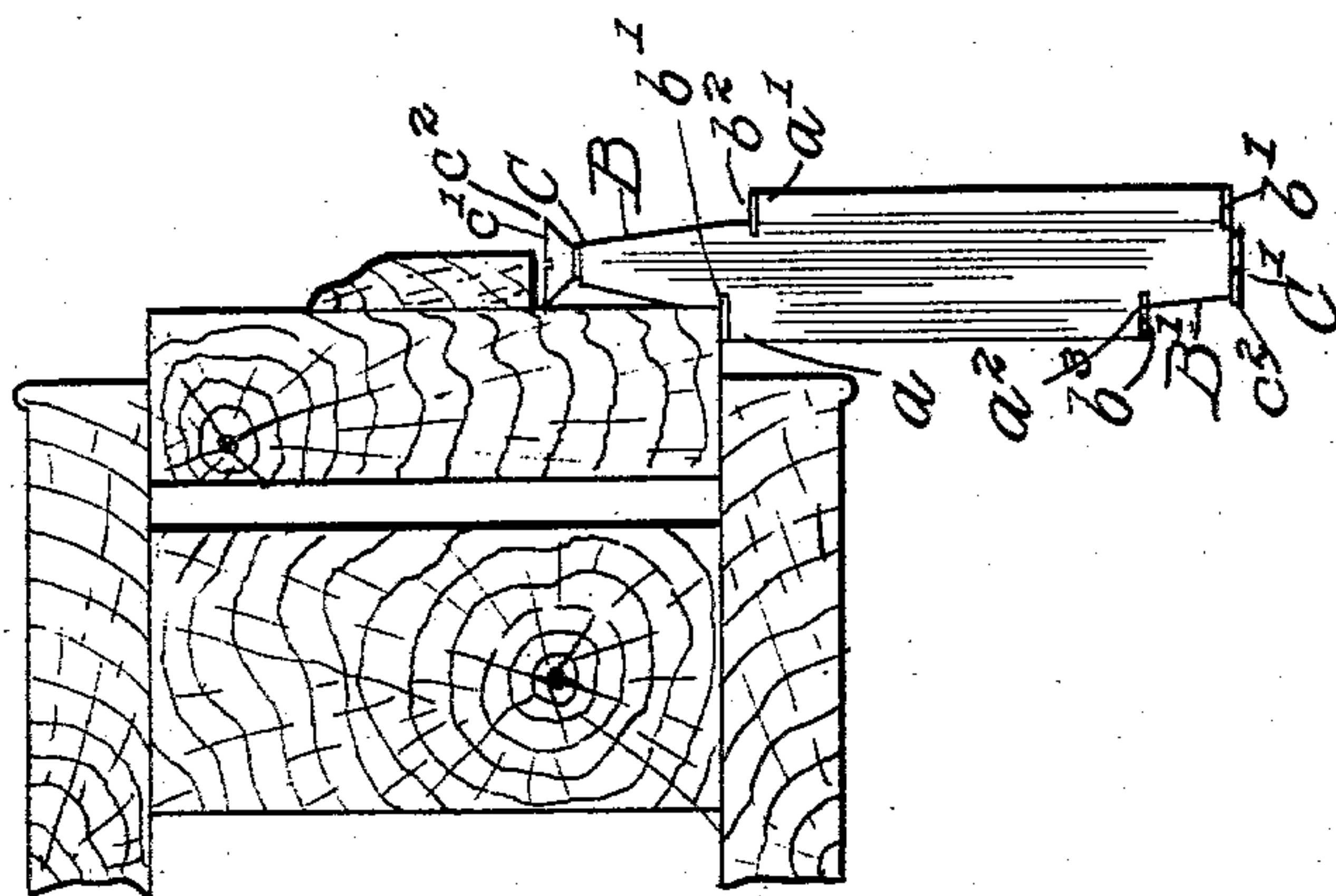


Fig. 2.



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UNITED STATES PATENT OFFICE.

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GAGE.

SPECIFICATION forming part of Letters Patent No. 753,120, dated February 23, 1904.

Application filed February 12, 1903. Serial No. 143,007. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. BUTTERWORTH, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Gages; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in "gages," and more particularly to a gage adapted for use in scribing the dimensions of hinges when hanging doors or the like to a jamb.

Heretofore it has been customary to use a gage with a sliding head or fence adjustable upon a shank with respect to a cutting-point rigidly secured near the end of said shank, and it has been difficult in the use of such devices to scribe close to the stop, casing, or other projection because of the projection of the shank beyond the cutting-point. Furthermore, as it is necessary to scribe for the thickness as well as for the width of the hinge two separate gages are required.

The object of this invention is to provide a multiple or combination gage provided with an adjustable cutter or marker at its extremity and adapted to scribe for several dimensions in any of its adjusted positions.

It is also an object of the invention to provide a cheap and simple construction capable of very delicate adjustment within certain limits.

The invention consists in the matters hereinafter described, and more fully pointed out and defined in the appended claims.

In the drawings, Figure 1 is a side elevation, partly broken, of a device embodying my invention. Fig. 2 is a transverse fragmentary section of one side of a door-frame, showing the device in position for marking the width for a hinge upon the jamb. Fig. 3 is a similar section showing the device in position for marking the depth or thickness of the hinge in the jamb.

As shown in said drawings, a rectangular

block of hard wood or other desired material A is shaped at one end to provide on opposite sides outwardly-directed transverse shoulders a and a' at right angles with the sides of the block and at unequal distance from the extremity. The end B of the block beyond said shoulders is of uniform width, but tapers in thickness toward the end to approximately half the thickness at the shoulder a . The opposite end of said block is provided with the transverse shoulder a^2 , similar to the shoulders a a' , but at less distance from the end of the block and having the end portion B' tapered, as before described. On the extremity of the end B', opposite said shoulder a^2 , a metallic wear-plate b is let into the end of the block with its outer surface flush therewith, and shoulders a a' and a^2 are each faced with a similar wear-plate b' , b^2 , and b^3 , respectively, each of which is joined into the block at its lower edge and rigidly secured in position by means of screws or the like, and form straight edges at right angles with the axis of the gage.

In each of the ends B and B' machine-screws C and C', respectively, are secured in alignment with the axis of the gage and each adjustable toward and from the shoulders on the adjacent end. Said screws are provided with the usual flat grooved heads c' c' of a diameter sufficient to project slightly beyond the tapered sides of the end on which secured and are sharpened at the periphery to form the cutting or marking edges c^2 c^2 for the gage at the extreme ends thereof.

The operation is as follows: Obviously, the engaging shoulders being disposed at different distances from the extremity of the gage, each cutting edge is adapted to strike two lines at different distances from the margin of the jamb or other surface to be marked without adjustment. As shown, the shoulders are so arranged that when the screw C is in its innermost position, with the base of its head seated on the end of the block, the adjustment is such with respect to the shoulder a as to adapt the device to scribe for the width of the leaf of a hinge suitable for a one-and-three-eighths-inch door or with respect to the shoulder a' for a one-and-three-fourths-inch door. The screw C' when in its innermost position

may conveniently scribe for the width of a leaf of a hinge suitable for a seven-eighths or one-and-one-eighth-inch door, and if used as shown in Fig. 3 when so adjusted it scribes
5 for the thickness of the leaf. Obviously the cutters, having screw-threaded engagement with the block, may be very accurately adjusted with respect to the adjacent shoulders by simply turning said screws, which not being tapered remain firmly in adjusted position.
10 The cutters may be sharpened by grinding the flat head of the screw. There being four engaging shoulders or engaging surfaces, each at a different distance from the adjacent cutter, it is obvious that the device is at all
15 times set for four scribing distances.

Obviously many details of construction may be varied without departing from the principles of this invention.

20 I claim as my invention—

1. A gage comprising a solid body, a plurality of transverse integral shoulders thereon, a wear-plate on each of said shoulders and a cutter in each end of said body longitudinally adjustable with respect to said shoulders, said body being tapered at its ends to permit the cutters to overhang said shoulders.
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2. In a device of the class described a rigid body, a plurality of transverse shoulders thereon, a wear-plate on each of said shoulders, a screw engaged in the end of and movable longitudinally of said body and an integral cutting-head on said screw and adjustable thereby with respect to said shoulders.
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3. In a device of the class described the combination with a rigid body having a plu-
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ality of integral transverse shoulders thereon, a wear-plate permanently secured on each of said shoulders, a screw of uniform diameter seated and longitudinally movable in the end of said block and a circular, peripherally-sharpened head on said screw adjustable with respect to either of said shoulders. 40

4. In a gage the combination with a rigid body of wood or the like, of a plurality of transverse metal-lined shoulders facing toward opposite ends thereof, a screw engaged in each end of said block axially thereof, a cutting edge on the heads of each screw adjustable with respect to said shoulders, one or both of the extremities of the gage serving to scribe for thickness. 50

5. In a device of the class described the combination with a rigid body of wood or the like, of a plurality of transverse metal-lined shoulders arranged on each side of said body and facing the ends at distances from the ends with the hinge thickness of various doors, an untapered screw seated axially in each end of said body and a cutting edge on the outward extremity of each of said screws adjustable with respect to said shoulders and the ends of the body which may also be used for scribing purposes. 60

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses. 65

JOSEPH J. BUTTERWORTH.

Witnesses:

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A. C. ODELL.