

No. 638,648.

Patented Dec. 5, 1899.

H. M. SHEER.
BOX FASTENER.

(Application filed Mar. 18, 1898.)

(No Model.)

Fig. 1.

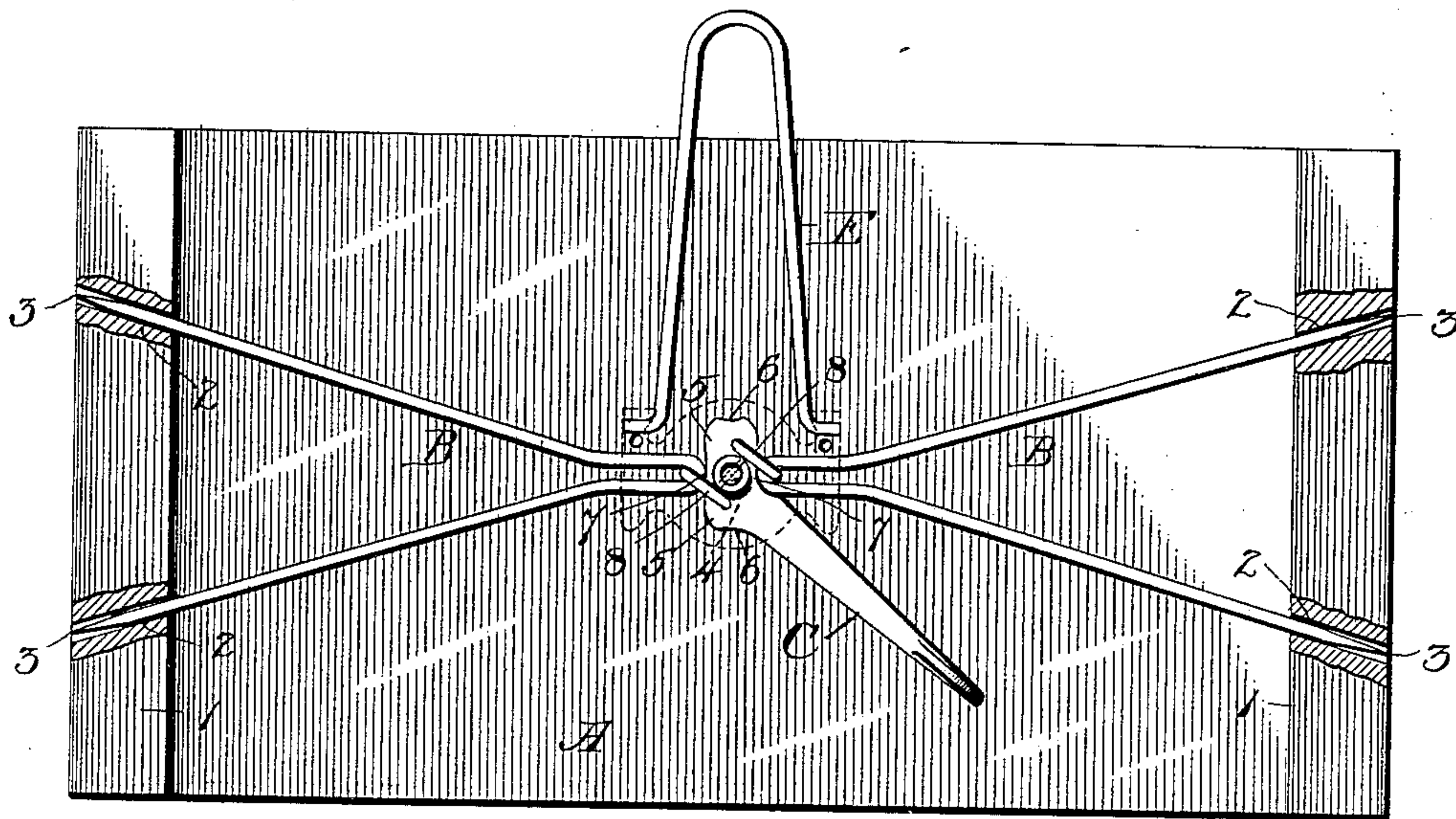


Fig. 2.

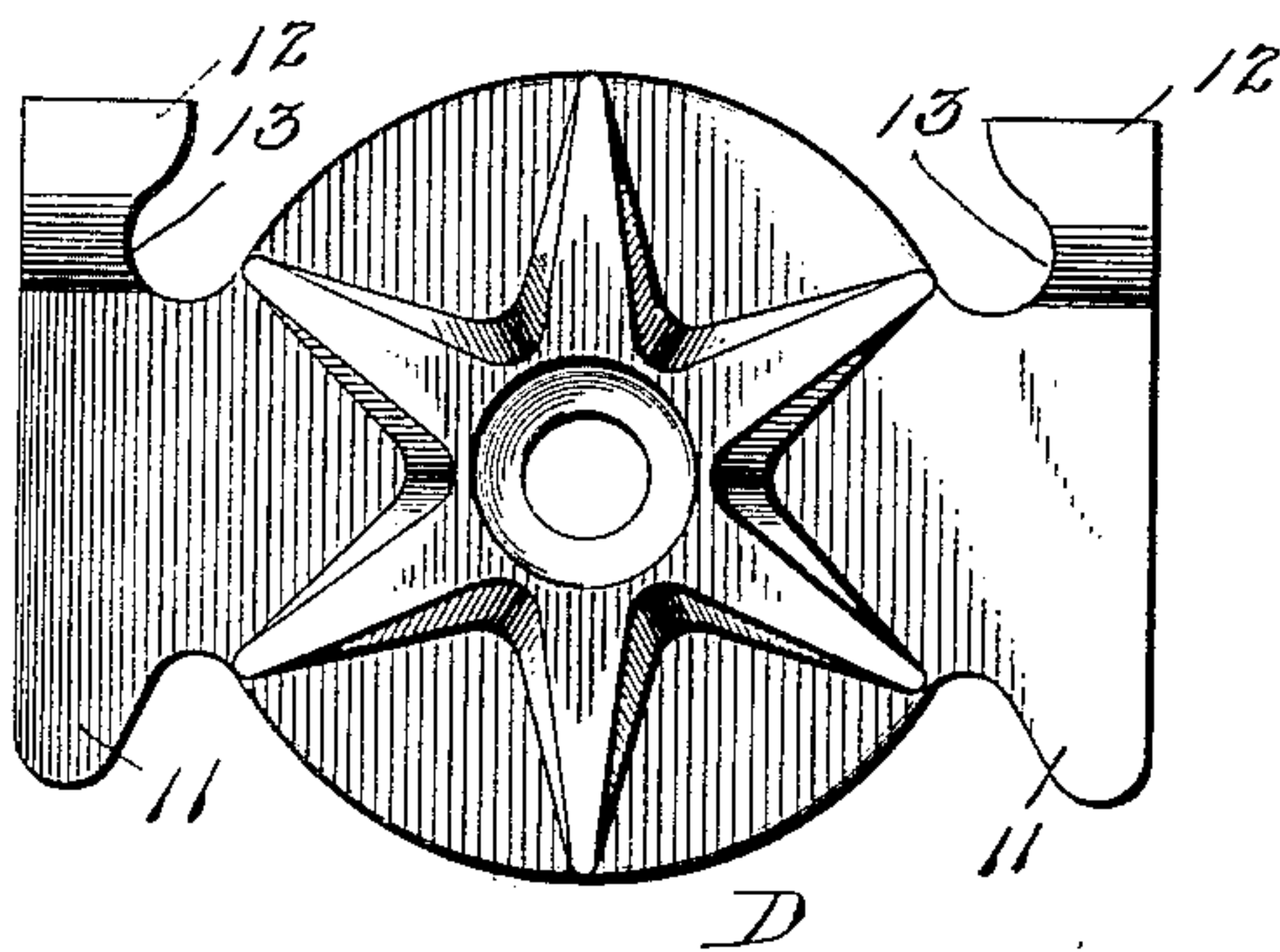
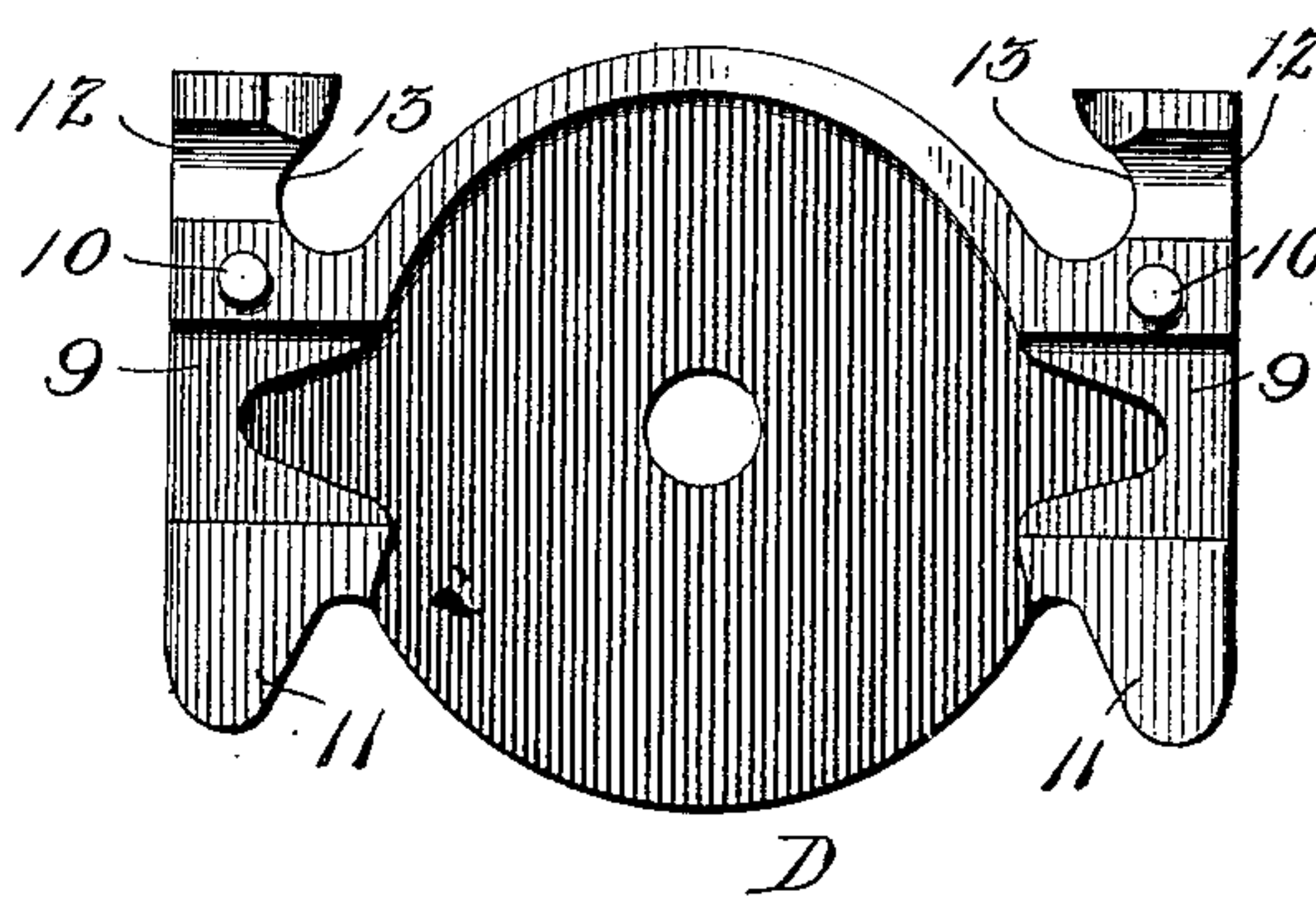


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY M. SHEER, OF QUINCY, ILLINOIS.

BOX-FASTENER.

SPECIFICATION forming part of Letters Patent No. 638,648, dated December 5, 1899.

Application filed March 18, 1899. Serial No. 709,613. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. SHEER, a citizen of the United States of America, residing at Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Egg-Case Fasteners, of which the following is a specification.

My invention relates to an improvement in egg-case fasteners, the object being to provide a simple, inexpensive, and effective means for closing a box or crate of any description and more particularly an egg box or crate, either at the top or at any point down in the box or crate, as consumption of the contents takes place; and the invention consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a top view of my improved egg-case fastener with the cap-plate removed, and Figs. 2 and 3 are top and bottom plan views of the cap-plate, respectively.

A represents a wooden cover made in the required dimensions for the box or crate to which it is to be applied, and 1 1 indicate cross-cleats secured at each end of the cover on the upper side thereof, and in these cleats or blocks, if preferred, holes 2 2 are formed.

B B indicate a pair of prongs preferably constructed of wire bent into V shape, with their inner ends coming to a point adjacent to each other and their outer ends sharpened or pointed, as at 3 3, to penetrate the inner ends of the box or crate to which the cover is to be applied, they passing through holes 2 2 in the cleats or blocks 1 1.

A hand-lever C is pivoted between the inner ends of the prongs on a screw or pin 4, and this lever is provided with a pair of cams 5 5, lying on opposite sides of the pivot or fulcrum, these cams being adapted to bear upon the inner ends of the prongs when the lever is turned in one direction to force said prongs simultaneously outward. The lever is likewise provided with recesses 6 6, to which the cams lead and in which the inner ends of the prongs rest, holding the lever on a dead-center and the lever at the same time locking the prongs in their outward throw when the lever

is thrown into one of its extreme positions. The lever is also provided with seats 7 7, close to and at opposite sides of the pivot and to which the cams lead, to receive the inner ends of the prongs when the lever is thrown to the opposite position from that described and when the prongs are made to recede from their position in the wall of the box or crate. As a means for forcing these prongs inward with the motion of the lever, the links 8 8 are provided, they being pivoted at one end to the lever and at the opposite end hooked into the inner U-shaped ends of the prongs. Cap-plate D is fitted over the pivoted end of the lever and constructed to guide the prongs at their inner ends in a strictly rectilinear movement, and for this purpose the grooves 9 9 are formed in the inner face of the cap-plate. The plate is held in position by the pins 10 10 and the pivot 4, which forms the fulcrum for the lever. Stops 11 11 are formed on the plate for defining the movements of the lever.

A handle E is pivoted in bearings 12 12, formed in an edge of the cap-plate. This handle is made of a wire preferably bent in the middle, with its ends springing outward, and the bearings 12 12 are inclined or cam-shaped on their inner edges to hold the handle against the cover when in one position, and they have the notches 13 13 to receive the handle when in its upright position and retain it there until sufficient force is applied to move it downward.

From the foregoing it will be seen that as the prongs are forced outwardly they are inclined to spread laterally or apart, thus forcing themselves securely into position in the box or crate, where they will remain until withdrawn by manipulating the lever.

It is hardly necessary to say that the parts are few, simple, and perfectly easy to construct and assemble, and, furthermore, they constitute a secure and easily-operated fastening device which can be applied to any article in which a similar style of fastening is desired.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth; but,

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

1. The combination with a pair of prongs
5 having a straight sliding connection with a lid or cover, their inner ends in proximity to each other, of an operating-lever pivoted between the inner ends of the prongs and loosely connected therewith, said lever provided at
10 its pivoted end with cams and oppositely-located recesses and seats with which the prongs have sliding connection.

2. The combination with a V-shaped prong,
of a lever having a cam thereon which en-
15 gages the inner end of the prong a link extending from the lever to the prong and the lever provided with a recess which engages the inner end of the prong when the latter is forced outwardly and with a seat into which
20 the inner end of the prong recedes when the prong is drawn inwardly.

3. The combination with a V-shaped prong,
a cover with which it has sliding connection

and a cap-plate between which and the cover the prong is caused to have a rectilinear move- 25 ment, of a lever provided with a cam for engaging the prong and forcing it outwardly and a link extending from the lever to the prong for drawing the latter inwardly.

4. The combination with a cover, a pair of 30 V-shaped prongs having sliding connection therewith and a cap-plate having grooves on its inner face between which and the cover the inner ends of the prongs are guided in rectilinear movement, said cap having bear- 35 ings, of a lever having cams and seats formed thereon and links extending therefrom to the prongs, a pivot for securing the cap-plate in position and forming a bearing for the lever and a handle held between the bearings of 40 the cap-plate and the cover.

HENRY M. SHEER.

In presence of—

IRA M. MOORE,
WILLIAM EHER.