

No. 622,339.

Patented Apr. 4, 1899.

G. P. FISHER, JR. & J. REIF, JR.

WOODENWARE PACKAGE.

(Application filed Feb. 13, 1899.)

(No Model.)

Fig. 1.

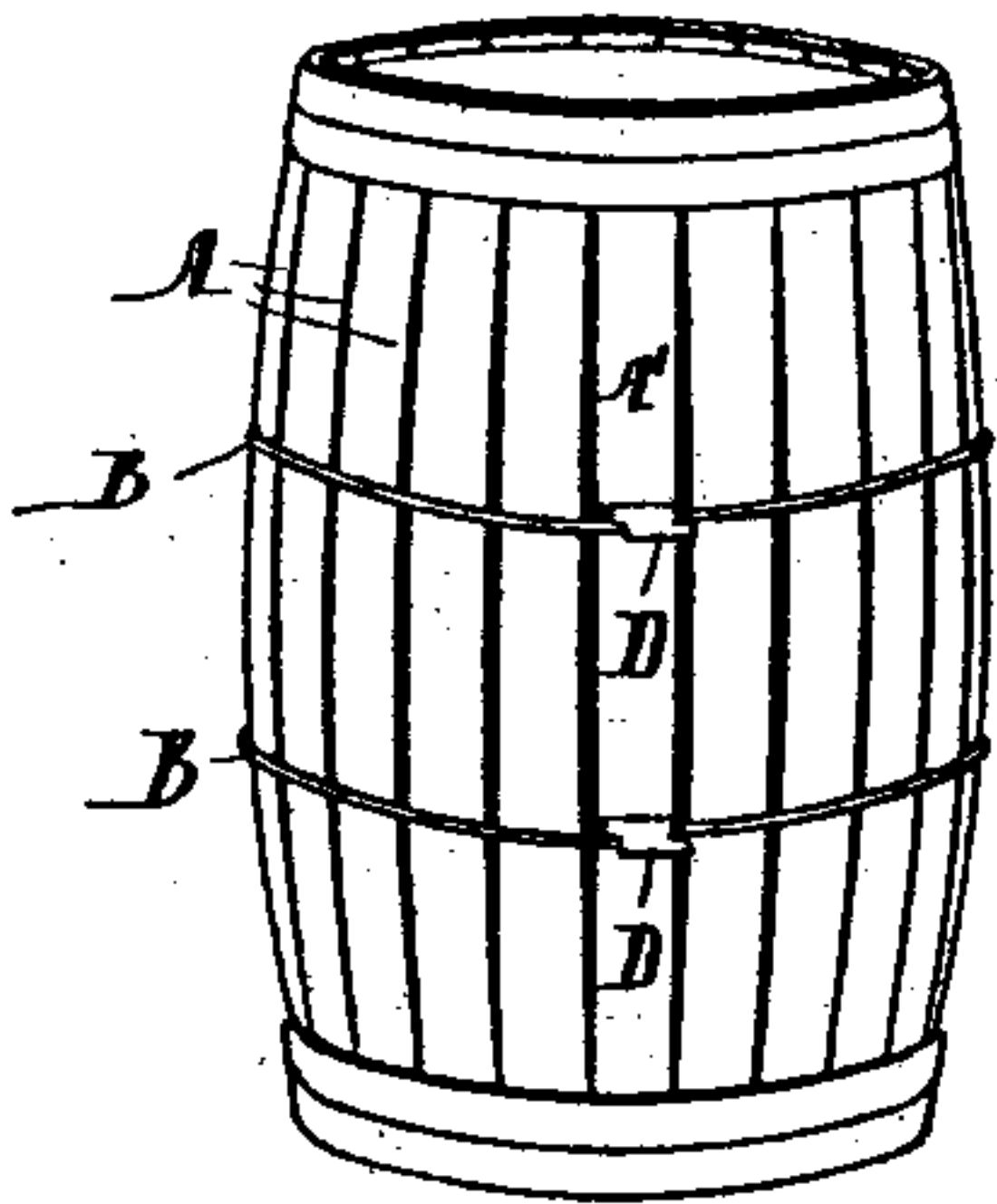


Fig. 2.

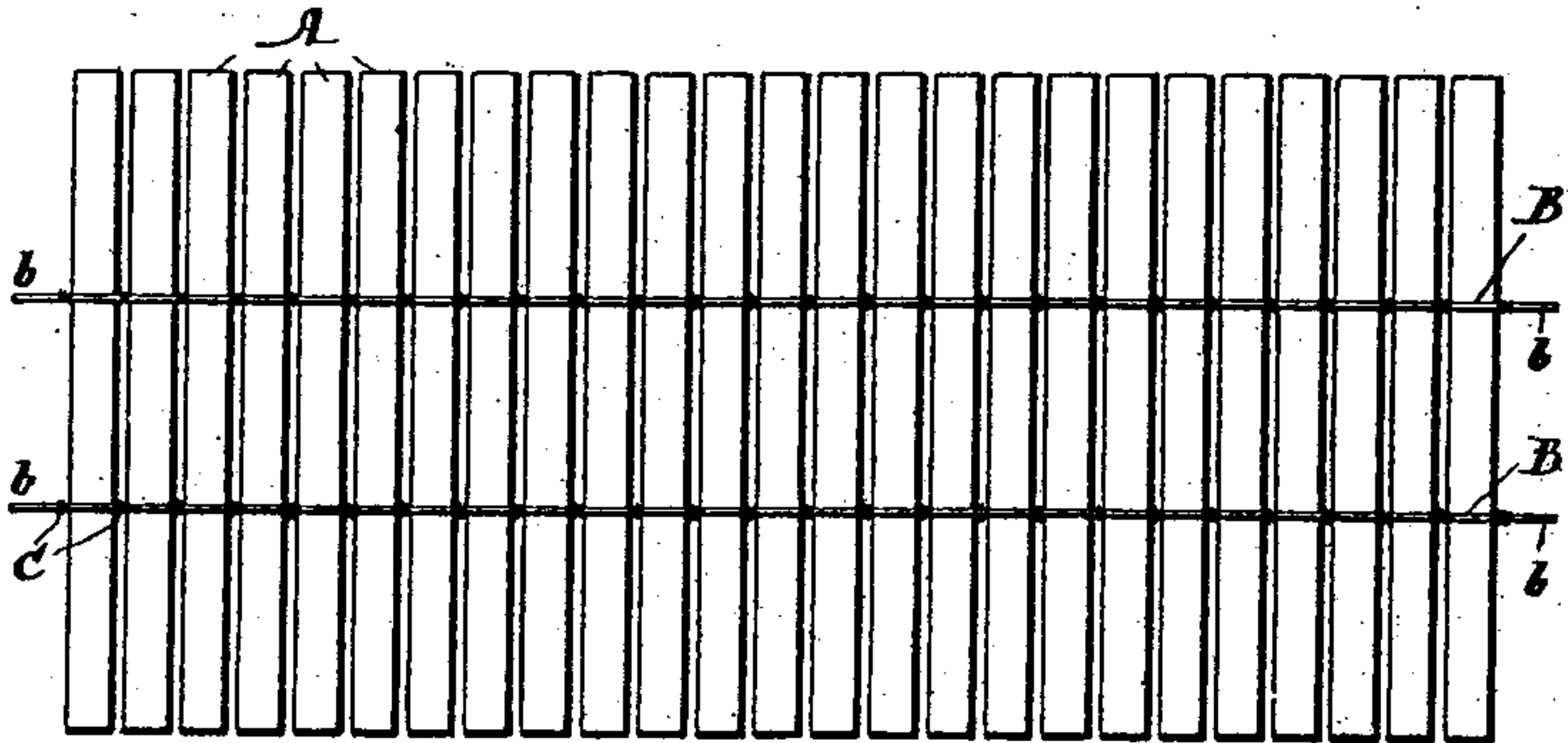


Fig. 3.

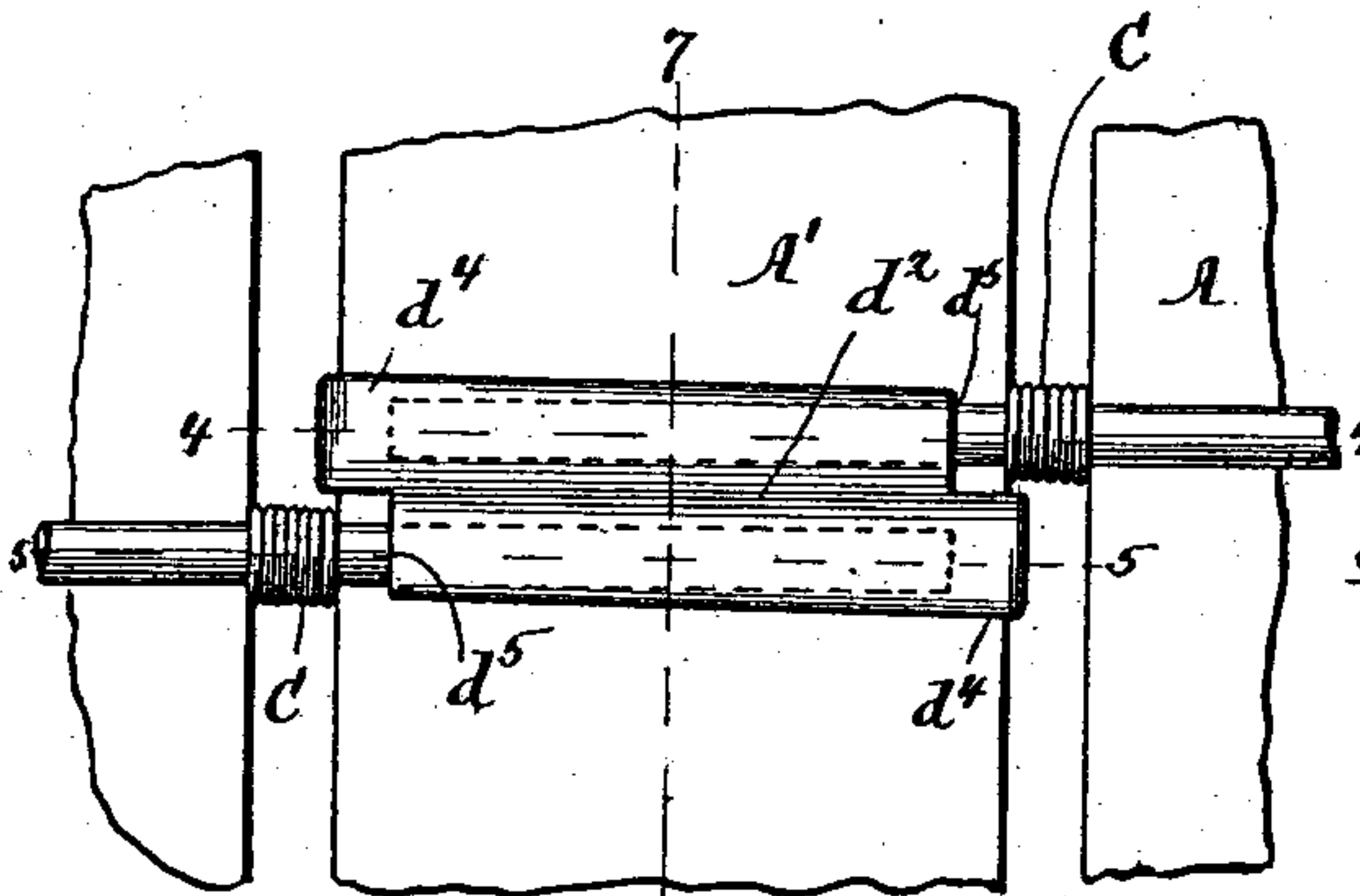


Fig. 8.

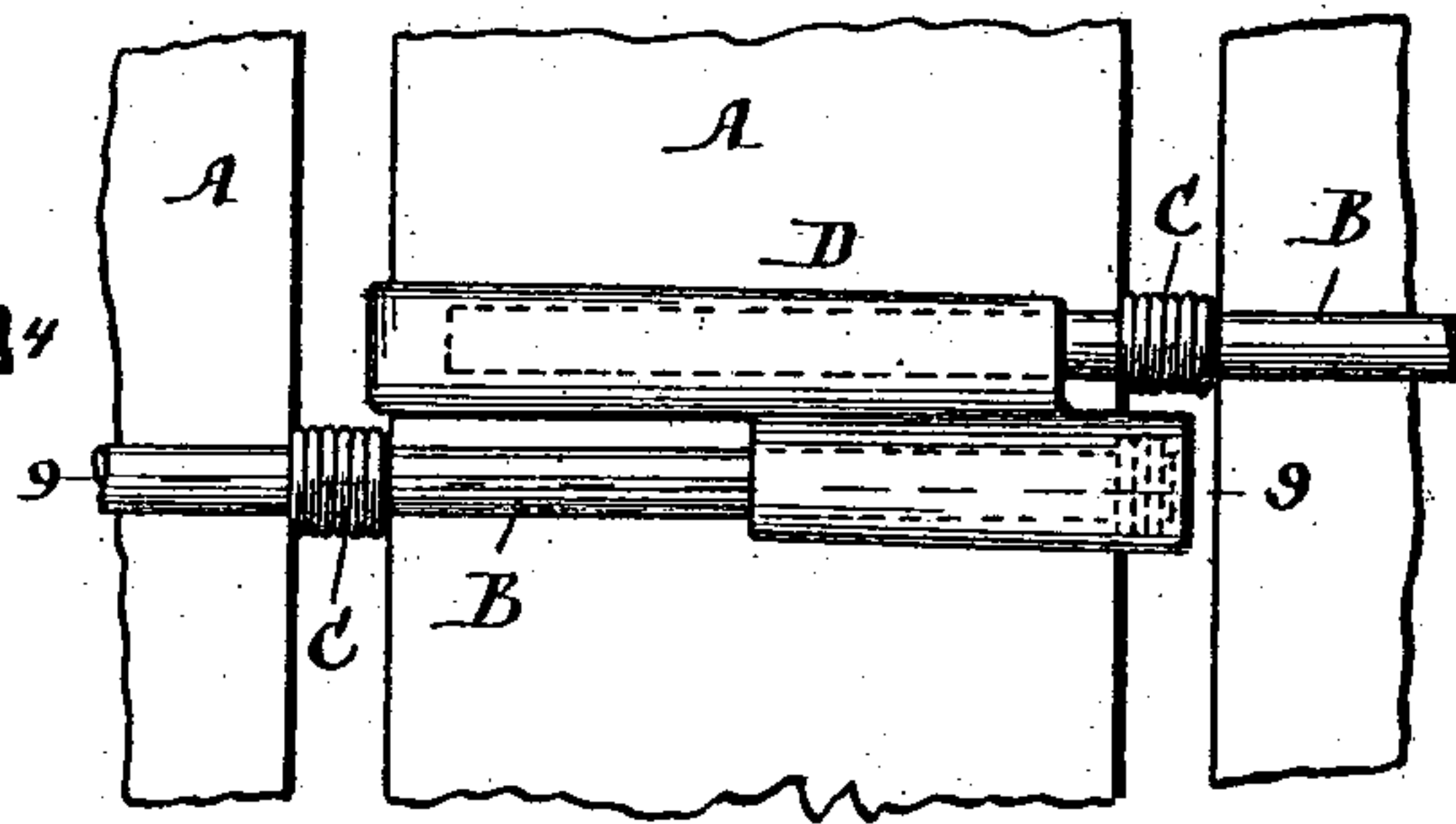


Fig. 4.

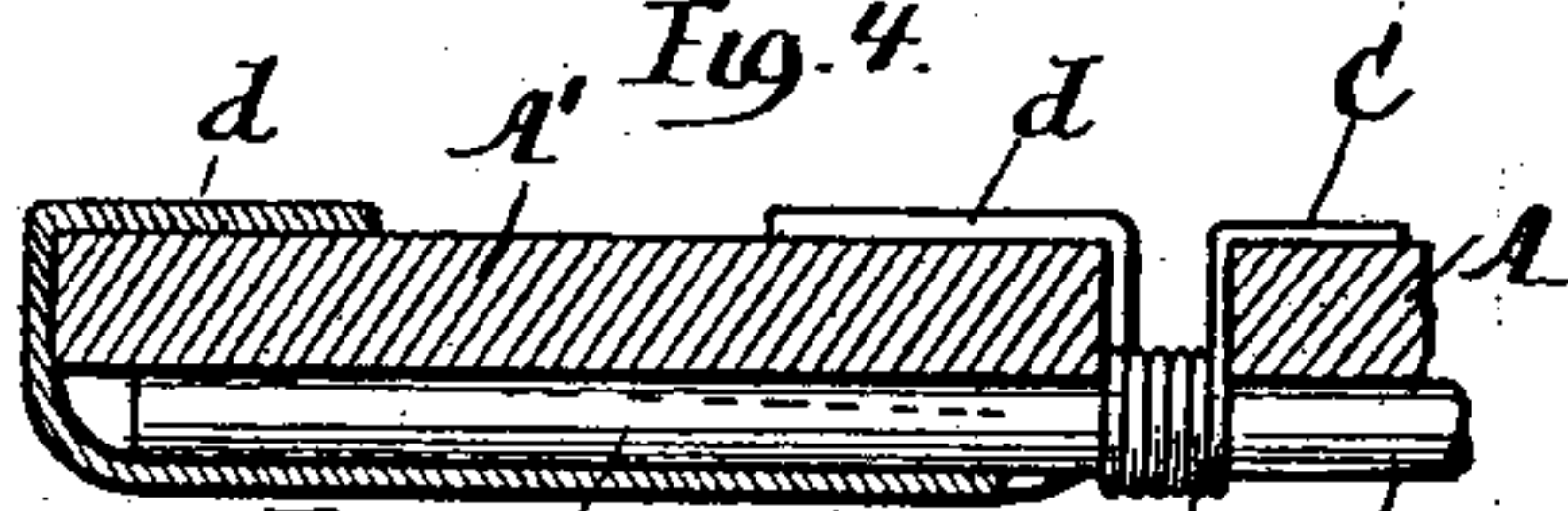


Fig. 9.

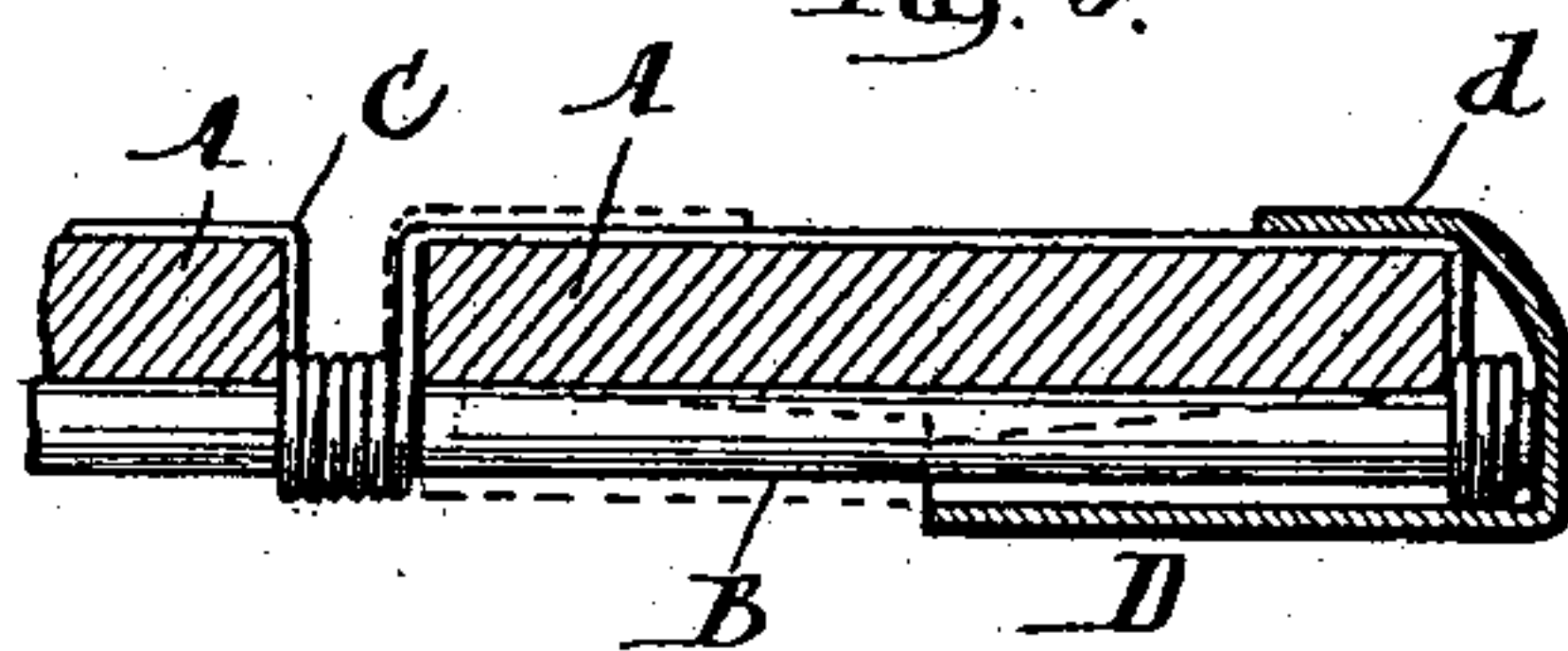


Fig. 5.

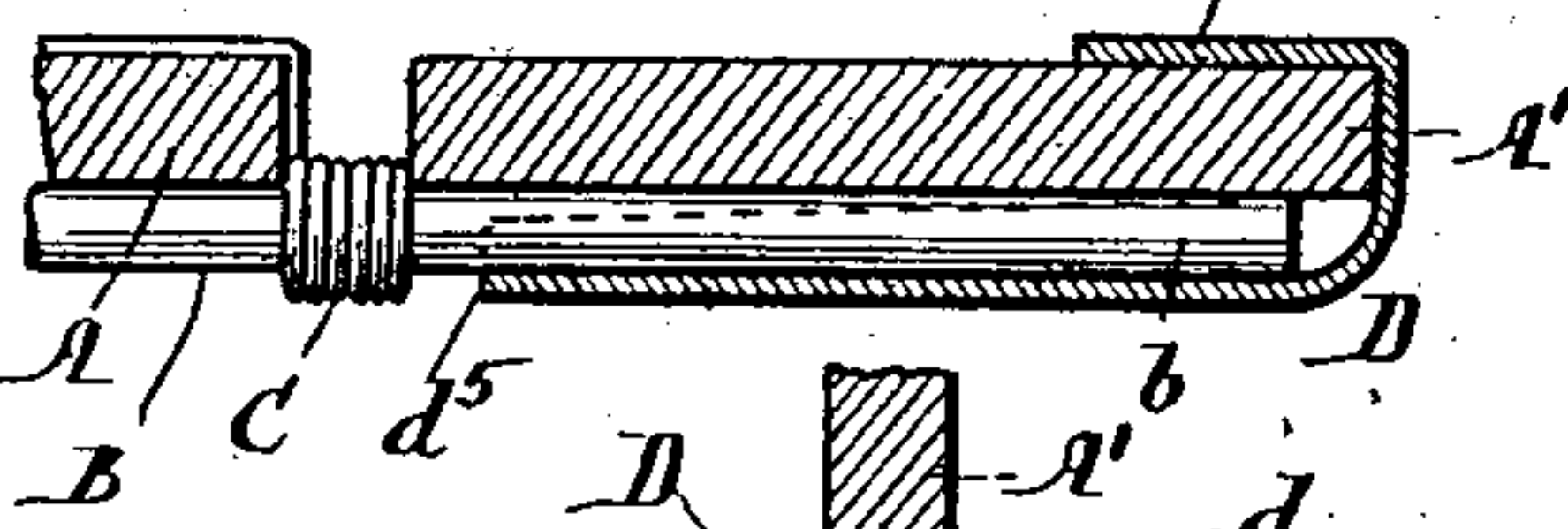


Fig. 7.

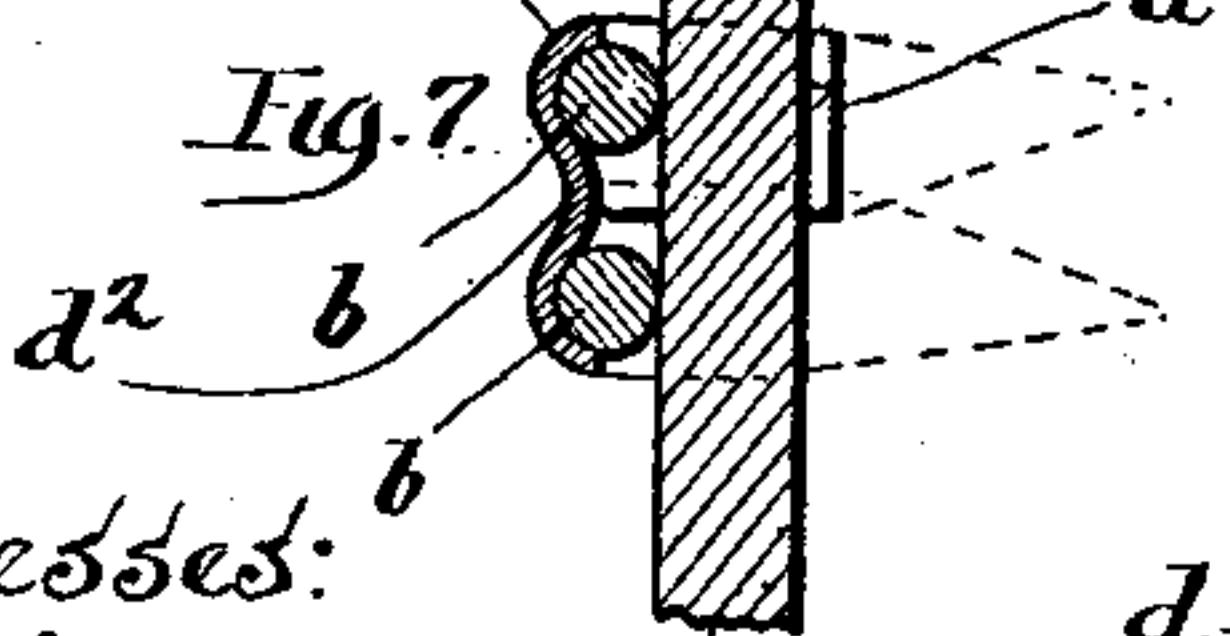
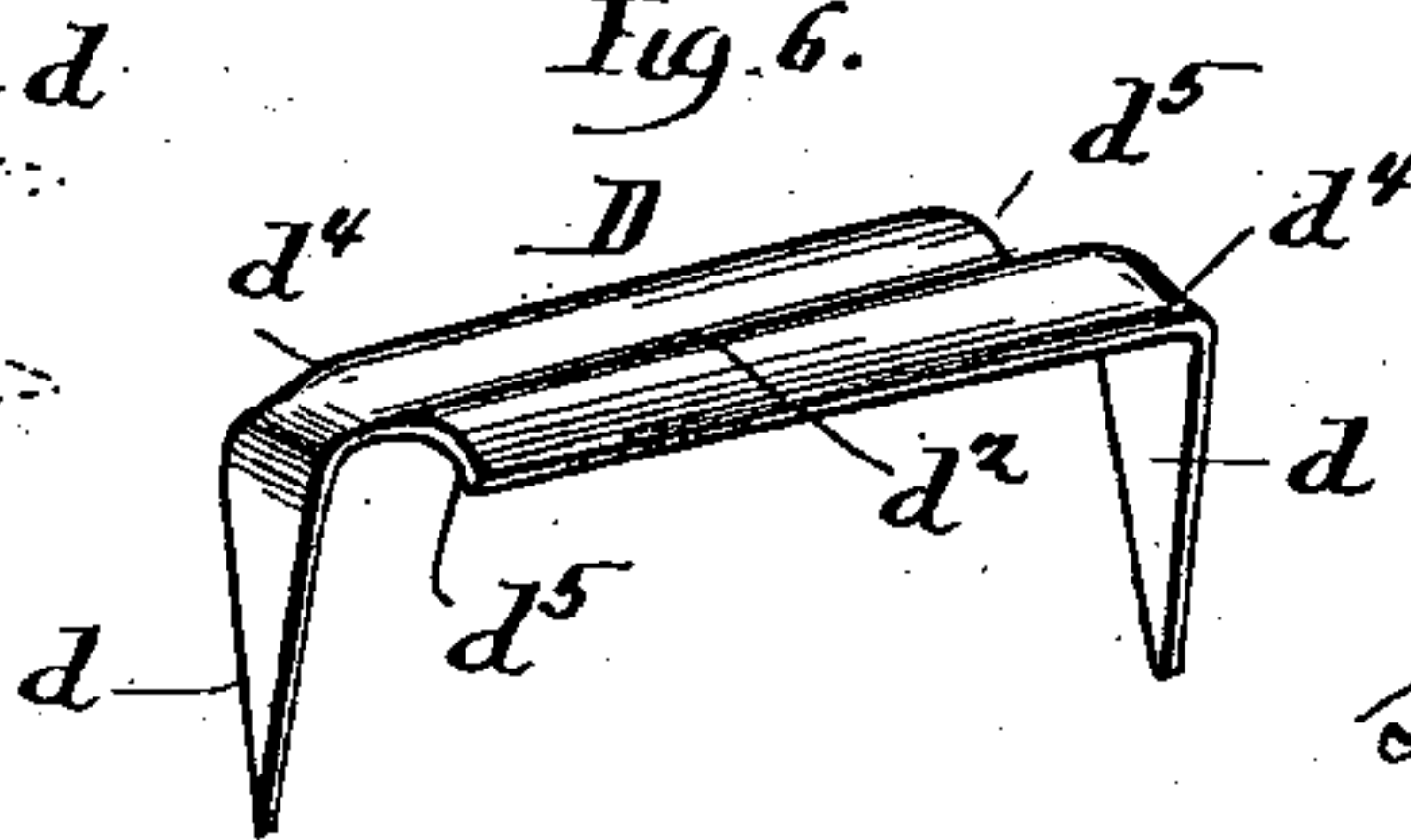


Fig. 6.



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UNITED STATES PATENT OFFICE.

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WOODENWARE PACKAGE.

SPECIFICATION forming part of Letters Patent No. 622,339, dated April 4, 1899.

Application filed February 13, 1899. Serial No. 705,452. (No model.)

To all whom it may concern:

Be it known that we, GEORGE P. FISHER, Jr., of Chicago, in the county of Cook, State of Illinois, and JOSEPH REIF, Jr., of Hebron, in the county of Porter, State of Indiana, have invented certain new and useful Improvements in Woodenware Packages, of which we do declare the following to be a full, clear, and exact description.

The invention has relation more particularly to that class of woodenware packages in which the body of the package is composed of a series of slats that are connected to one or more main binding-wires of relatively large size by wires that are twisted around the binding-wire at points between the slats.

The object of this invention is to provide improved means for connecting together the ends of the binding wire or wires; and the invention consists in the features of improvement hereinafter described, illustrated in the accompanying drawings, and particularly defined in the several claims at the end of the specification.

In the accompanying drawings, the invention is shown as applied to a barrel made from slat-and-wire fabric, because the invention is particularly applicable in connection with barrels of this character, since it enables the barrels to be shipped in "knocked-down" shape and to be readily and securely set up for use.

Figure 1 is a perspective view of a barrel embodying the invention. Fig. 2 is a plan view of the "mat" or body of the barrel in extended position. Fig. 3 is a view upon an enlarged scale of that portion of the barrel immediately about one of the wire-fasteners. Fig. 4 is view in section on line 4 4 of Fig. 3. Fig. 5 is a view in cross-section on line 5 5 of Fig. 3. Fig. 6 is a perspective view of the fastener for the ends of the wire, the legs of the fastener being shown in extended position. Fig. 7 is a view in cross-section on line 7 7 of Fig. 3. Fig. 8 is a view similar to Fig. 3, but showing the fastener upon the end of

the mat. Fig. 9 is a view in cross-section on line 9 9 of Fig. 8.

A designates the slats whereof the barrel is composed, these slats being connected to the binding-wires B by means of tie-wires C, that extend upon the sides of the slats opposite the binding-wires and are coiled about the binding-wires between the slats. Between the ends of the mat that is formed by the slats A, attached to the binding-wires B, may be interposed a key-slat A', that carries the fasteners, whereby the projecting ends *b* of the binding-wires will be connected together. Two fasteners are shown in the drawings; but it will be obvious that one or more fasteners may be used, according to the number of binding-wires upon the barrel or like package. Each fastener, as shown, consists of a staple-like body having a crown D and legs *d* formed integral with the crown and usually from plate metal. The crown of the fastener is provided with some suitable means to hold it sufficiently away from the surface of the slat to permit the free ends or terminals of the binding-wire to be inserted in the openings at the opposite ends of the crown when the fastener is attached to a key-slat, as shown in Fig. 3 of the drawings, and the fastener is also provided with means to hold the ends or terminals of the binding-wire against lateral displacement. Preferably these results are attained by forming the crown of the fastener with a raised seat *d'* to receive the free ends *b* of the binding-wire, this raised seat extending lengthwise of the crown of the fastener and transversely of the key-slat. Preferably, although not necessarily, the crown of the fastener D is depressed, as at *d''*, to divide the seat *d'* into separate compartments for the separate ends of the wire B. The outer edges of the crown of the fastener D being bent inward, so as to bear against the face of the key-slat A', serve to hold the crown of the fastener sufficiently raised above the face of the slat to permit the free ends *b* of the binding-wire to be inserted beneath the crown of the fas-

tener. The legs d of the fastener are by preference narrower than the crown D , and the openings at the ends of the crown are arranged in offset relation to each other, as clearly seen in Figs. 3 and 6 of the drawings. The legs are also preferably bent in opposite directions in order to bring those portions of the edges of the crown adjacent the legs, as at d^1 , in position to bear upon the face of the slat. By arranging the legs d at one end of the fastener opposite the opening at the other end each leg serves as a stop for the free end of the wire that will be inserted in the opposite open end portion of the fastener. Preferably the crown D of the fastener is cut away, as at d^5 , adjacent each leg in order to permit the free ends b of the wire to be more readily inserted beneath the crown of the fastener. The fastener is attached to the key-slat by placing the fastener on the slat and clenching the legs d against the inner side of the face of the slat.

From the foregoing description it will be seen that each fastener serves to hold the ends of the binding-wire in place not only against lateral movement, but also against longitudinal movement, and as the legs or stops at the ends of the fastener (in the preferred form of the invention) serve to prevent the pushing of the ends of the binding-wire through the seats beneath the crown the crowding together of the slats in the operation of trussing the barrel is avoided.

In setting up the barrel the mat is bent into circular form and the free ends b of the binding-wires B are inserted into the open ends of the channels of the fasteners, the key-slats being first interposed between the ends of the mat. The tendency of the mat to resume a flat position will cause the free ends b of the binding-wires to bind against the under side of the crowns of the fasteners and against the edges of the key-slat, and thus retain the mat in circular condition. By means of a cooper's windlass or similar contrivance the upper ends of the slats A and key-slat A' will be drawn together, as shown in Fig. 1, after which the head and hoops will be set in position in the usual manner. The barrel will then be reversed and the opposite ends of the slats will in like manner be drawn together and be encircled by the usual hoops.

It is obviously not essential to our invention that the fastener should be placed upon a key-slat, as above described, but may be placed upon one of the end slats of the mat, as illustrated in Figs. 8 and 9 of the drawings. When thus employed, the binding wire or wires B will be cut off quite close to the edge of one of the end slats, and the fastener will be set over this end slat in such manner that one of the legs d shall pass around the end of the binding-wire and then clench against the inner face of the slat. This leg of the fastener thus serves as a stop to pre-

vent the longitudinal movement of the binding-wire, while the opposite leg of the fastener engages the inner edge of the slat. In setting up a barrel from a mat having the fasteners thus applied thereto the free straight ends or terminals of the binding-wires B will be inserted in the openings at the ends of the fasteners, after which the heads and hoops will be applied to the body of the barrel, as before described.

While we have described the preferred form of our invention, it will be seen that certain features thereof may be employed without its adoption as an entirety and that the details of construction may be modified without departure from the spirit of the invention.

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

1. In a slat barrel having one or more wire hoops, the combination with one of the slats, of a fastener provided with a crown extending transversely of the slat and holding beneath it the terminals of the binding-wire and having stops opposite the ends of said wire terminals to limit their longitudinal movement.

2. A slat barrel the body whereof comprises a series of slats united by a binding-wire, one of said slats having fixed thereto an open-ended staple-like fastener the crown whereof is raised above the surface of the slat and so adapted to permit a terminal of the binding-wire to be inserted under the crown of the fastener after the fastener is fixed in position and to retain said terminal against lateral movement, said fastener having legs that are clenched against the inner face of the slat.

3. A slat barrel, the body whereof comprises a series of slats united by a binding-wire having straight terminals, one of the slats having fixed thereto an open-ended staple-like fastener having its crown extending over the straight terminals of the binding-wire and having legs that clench against the opposite face of the slat, whereby said wire terminals are held in place.

4. A slat barrel having one or more wire hoops formed with straight and lapping terminals, one of the slats having fixed thereto an open-ended staple-like fastener, the crown whereof extends transversely of said slat and over said lapping terminals and serves to unite said terminals and prevent their longitudinal movement.

5. A fastener for the ends of a wire comprising a sheet-metal staple, the crown whereof is provided with a raised portion open in the direction of the length of the fastener and adapted to receive the ends of a wire and having legs adapted to clench against the under side of a slat.

6. A fastener formed from a sheet-metal blank and having a crown raised to receive the lapping ends of a wire and stops at the

ends of said raised part to limit the endwise movement of the wire ends, said stops being arranged in offset relation at the opposite ends of said raised part of the crown.

- 5 7. A fastener for the ends of a wire having at its ends legs to engage a slat and having a crown connecting said legs, said crown being formed with a raised part to receive the ends of the wire and with inwardly-turned side

edges adapted to bear upon the slat face and to maintain the raised part in position to permit the ends of a wire to be inserted.

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