

No. 687,941.

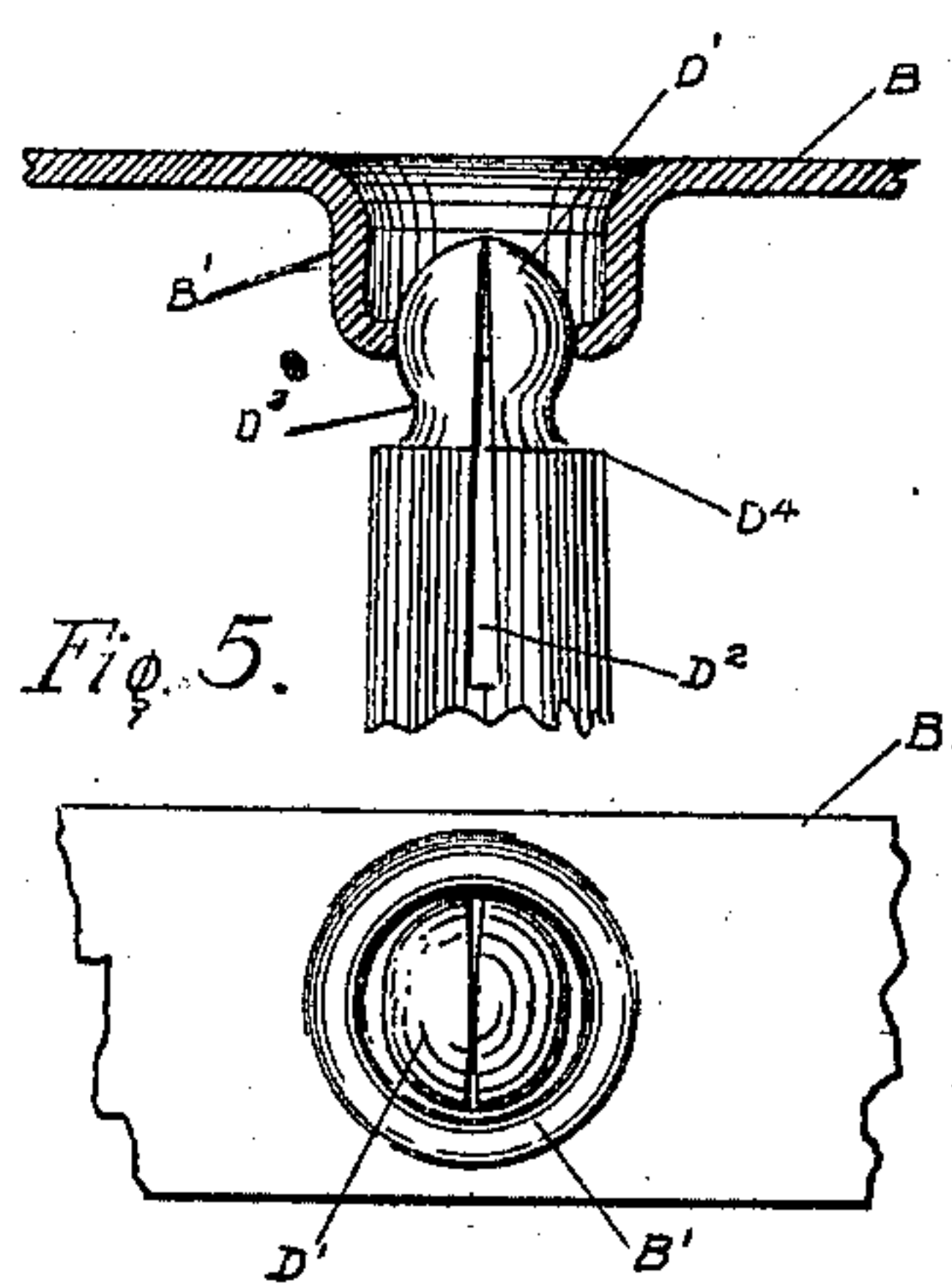
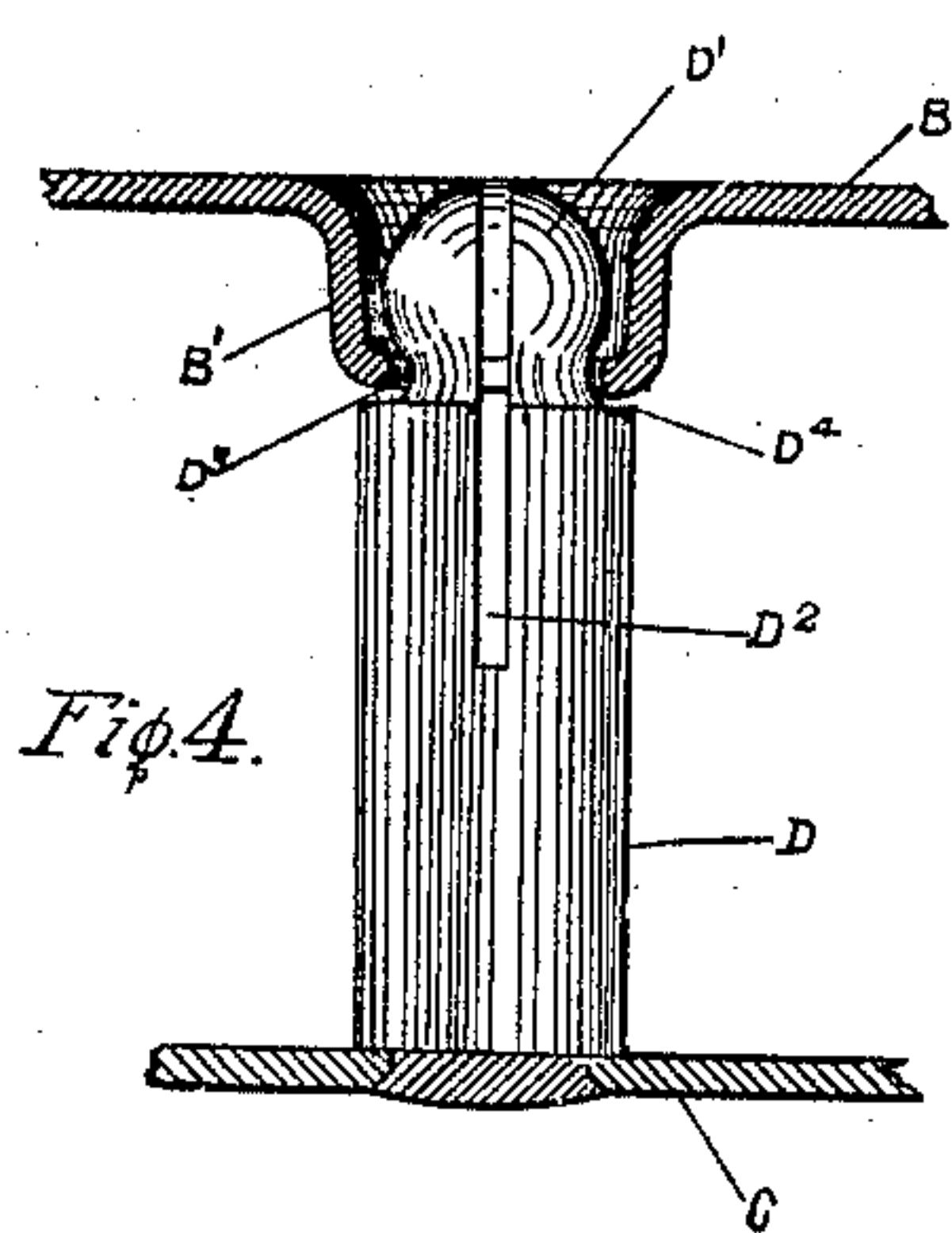
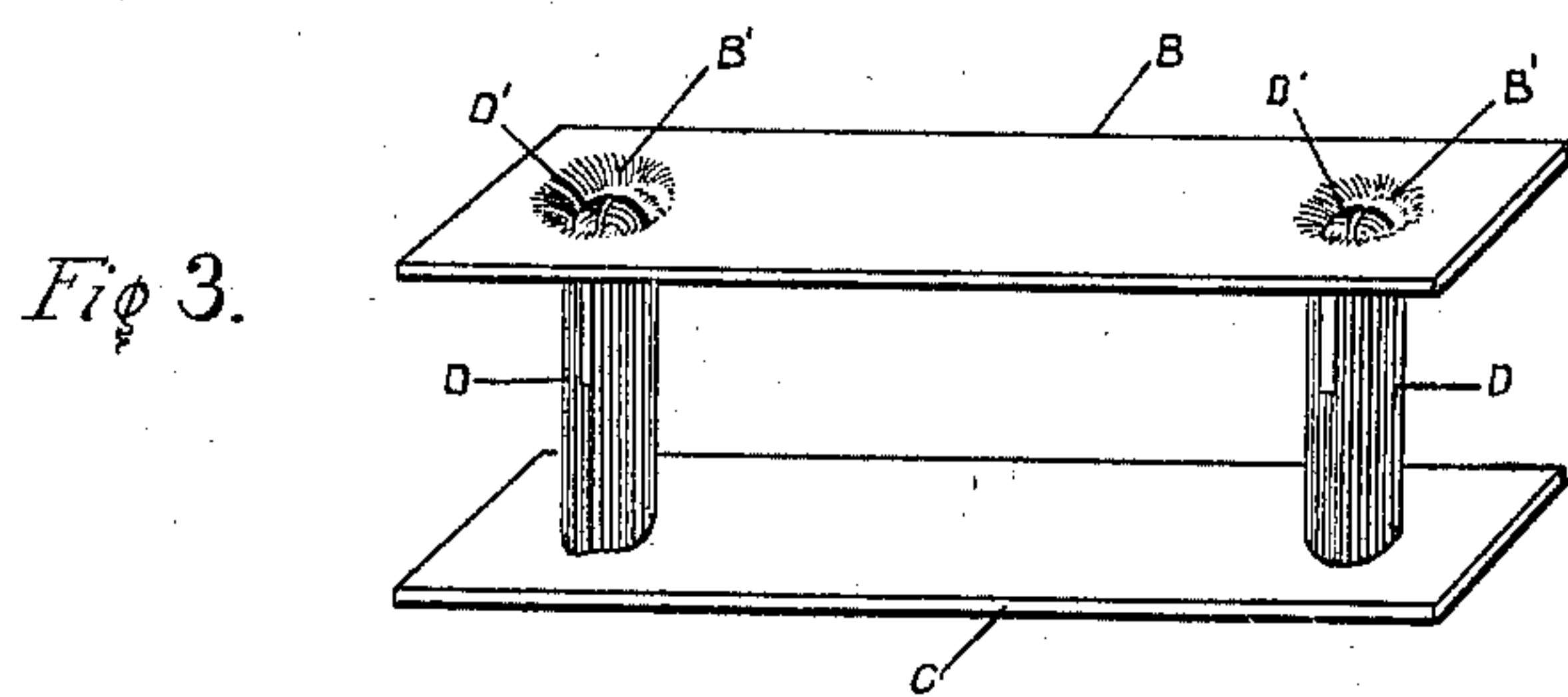
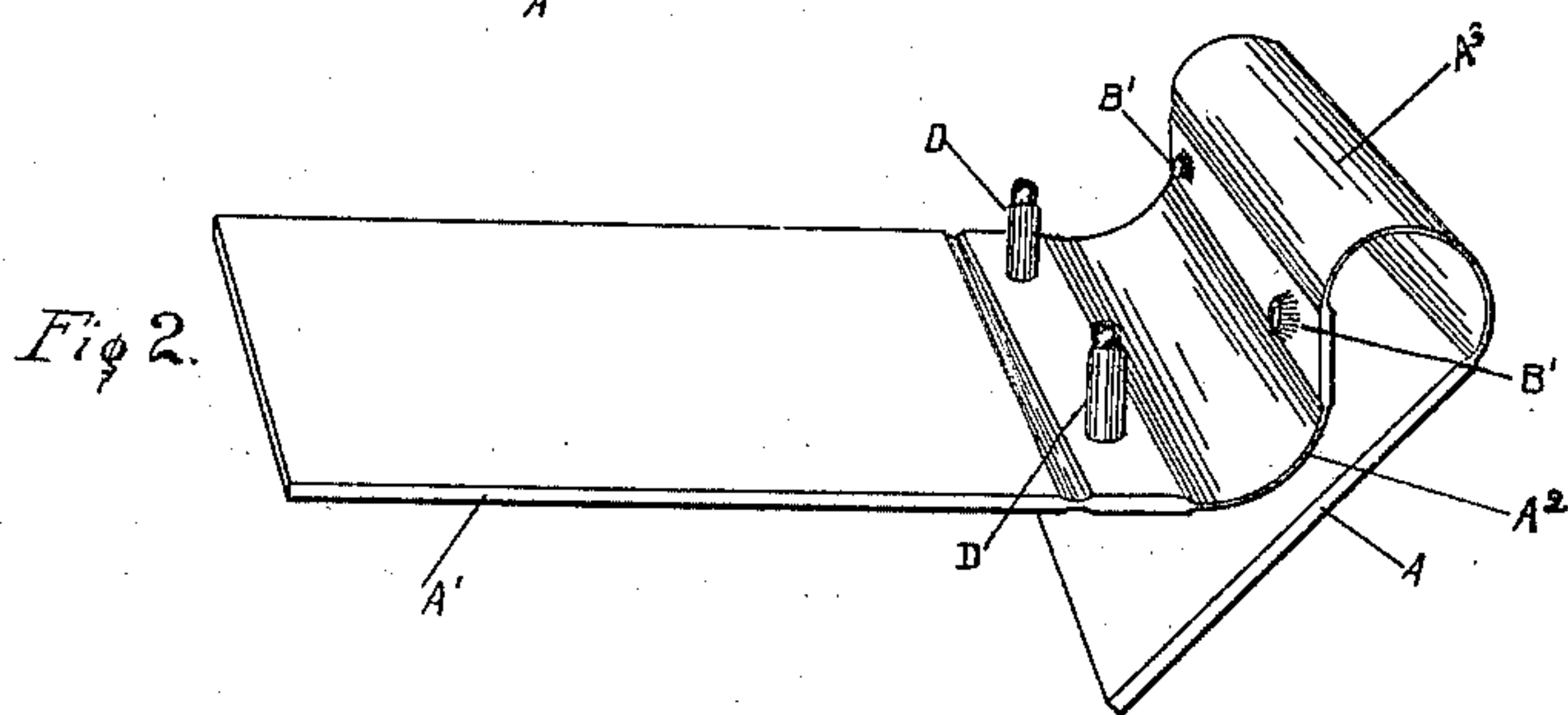
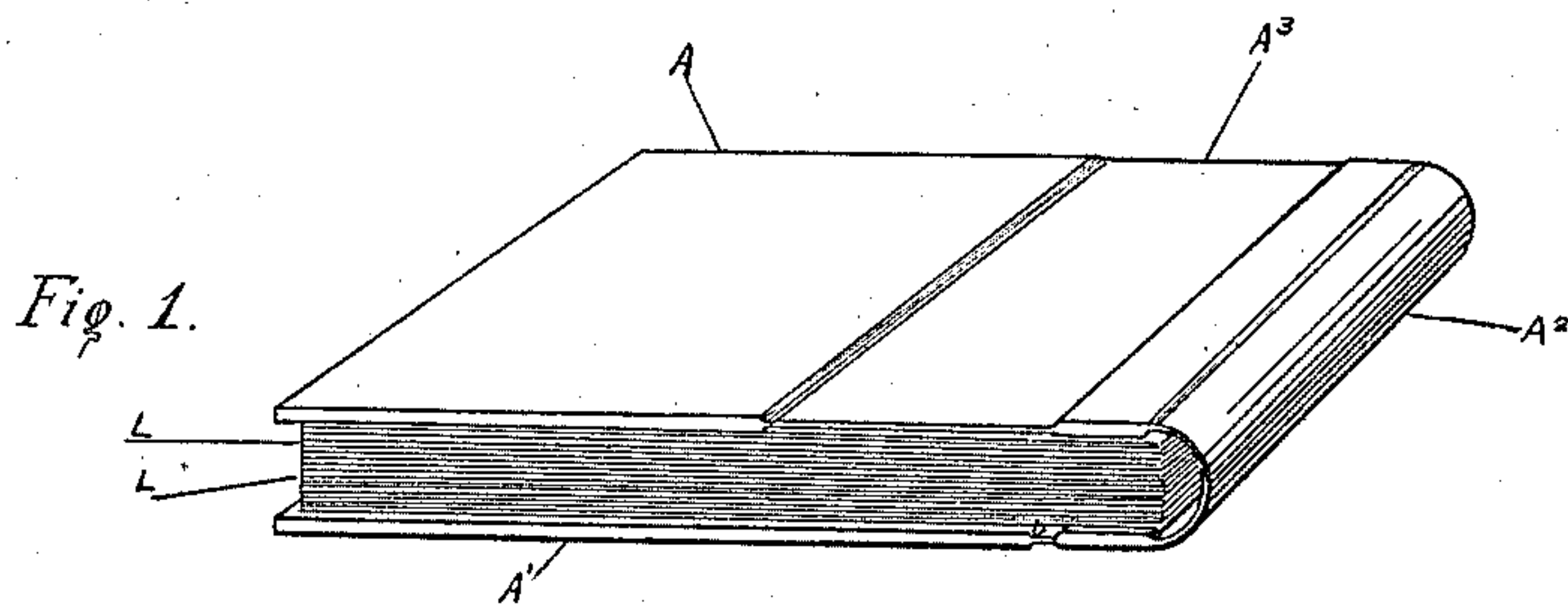
Patented Dec. 3, 1901.

J. A. RADFORD & F. BRUEGGEMAN.

LOOSE LEAF BINDER.

(Application filed June 11, 1900.)

(No Model.)



Witnesses
H. R. Green
H. J. Thoenel

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UNITED STATES PATENT OFFICE.

JOHN A. RADFORD AND FRANK BRUEGGEMAN, OF CHICAGO, ILLINOIS.

LOOSE-LEAF BINDER.

SPECIFICATION forming part of Letters Patent No. 687,941, dated December 3, 1901.

Application filed June 11, 1900. Serial No. 19,977. (No model.)

To all whom it may concern:

Be it known that we, JOHN A. RADFORD and FRANK BRUEGGEMAN, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Loose-Leaf Binder, of which the following is a specification.

Our invention has for its object the production of an improved loose-leaf binder having certain features and qualities that render it especially useful for stenographers, students, and professional men generally, the same being simple and cheap; and it consists in certain details of construction, as hereinafter described and claimed and as illustrated in the accompanying drawings, forming part of this specification.

In the drawings referred to, Figure 1 is a perspective view of a binder embodying our said construction. Fig. 2 shows the binder unfastened with leaves removed, the front cover being thrown back. Fig. 3 is a view of the parts composing the fastening device before they are fixed in place on the covers. Fig. 4 is a cross-sectional view showing one of the pins in a locked or fastened position. Fig. 5 shows the closing action of the pin while entering or leaving the hole in the depression formed in the upper plate.

The complete fastening device, as is shown in Fig. 3, consists of a metal strip B, in which are formed two depressions B' B', a metal strip C of corresponding dimensions, and two slotted pins D D, which are rigidly fastened to the plate C and stand perpendicularly upward from said strip or plate.

Referring to Figs. 4 and 5, which each show in detail one of the pins D, together with the portion of plate C to which it is secured and the portion of plate B containing the depression B', D' is the head of the pin, which is spherical in form and a little smaller in diameter than the body of the pin. Below the spherical head is a neck D³, which fits loosely the oval hole in the bottom of the depression B'. D⁴ is a shoulder, which acts as a stop for the plate B when the spherical head D' has entered the depression B'. The depression B' forms a receptacle for the spherical head D', preventing the same from projecting beyond the top surface of plate B. D² is a slot in the pin, extending from the

top about half-way down, which permits the spherical head D' to contract sufficiently to pass through the hole in the depression B'. The spherical head after passing through said hole springs back to its former position. The portion of the pin extending from neck D³ upward is rounding. Therefore when sufficient force is applied to plate B it will be forced over the spherical head D' either to fasten it to pin D or to release it from the same, the divided parts of the pin being wedged together in each case by the plate as it passes over the spherical head D'.

Referring to Figs. 1 and 2, A indicates the front cover of the binder, and A' the back cover. A² is a flexible back, which is securely fastened to the covers A and A'. L L are the separate leaves. A³ is a flexible portion of cover A, which is of sufficient length to permit cover A to be folded back over the back A² and lie flatly against cover A', exposing the leaves for writing, &c.

The metal strips B and C (shown in Fig. 3) are of the same linear measurement as the width of the covers A and A', plate B being fastened to cover A and plate C being fastened to cover A'.

Fig. 2 shows only the two depressions B' B' and the two pins D D exposed, the remaining metal being concealed by leather, which is glued over the inside of the back A² and overlaps the plates B and C, thereby holding them secure and at the same time giving the inside of the binder a neat appearance.

The leaves are perforated at a proper distance apart to be easily impaled on the pins D.

The number of leaves held in the binder has no effect on the holding device, the covers being held at a definite and unvarying distance apart.

The fastening and unfastening of the binder for insertion or extraction of leaves is accomplished by forcing plate B over the spherical heads D', the divided portions of the pins being stiff enough to hold cover A in place when the binder is fastened for ordinary use.

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

In a binder of the character described, the combination with suitable cover-sections, of

a plate C connected with one of said cover-
sections and provided with posts having
rounded heads, said posts having longitudi-
nal slots permitting contraction of the heads,
5 a flexible back A² connected with said plate,
a plate B connected with said back and pro-
vided with depressions having oval perfora-
tions receiving said heads, and a cover-sec-
tion connected with said plate B, substan-
10 tially as and for the purpose set forth.

In testimony that we claim the foregoing
we have hereunto signed our names in the
presence of two witnesses, who have sub-
scribed their names hereto.

JOHN A. RADFORD.
FRANK BRUEGGEMAN.

Witnesses:

H. J. THOENDEL,
FRANK KELLNER.