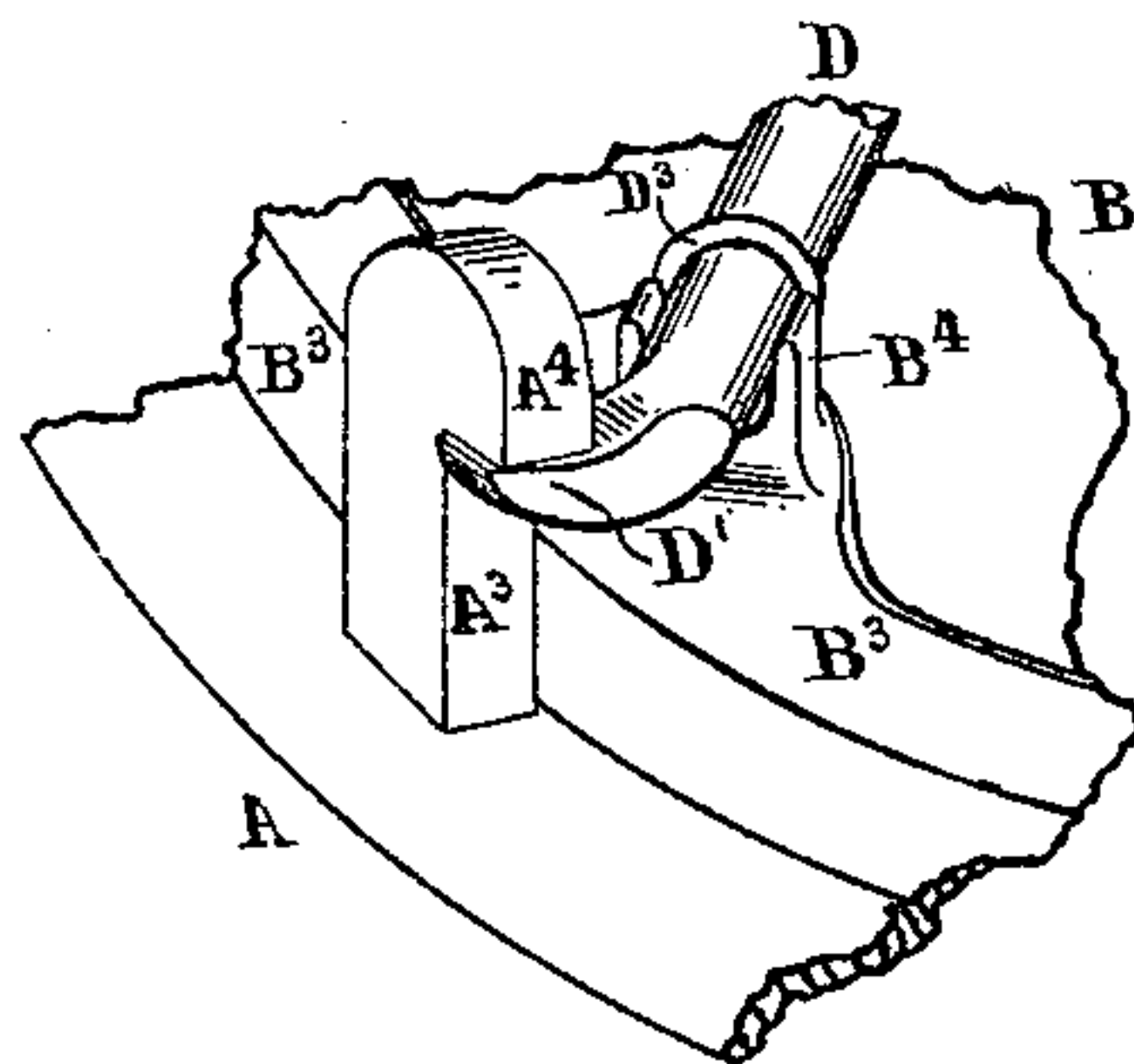
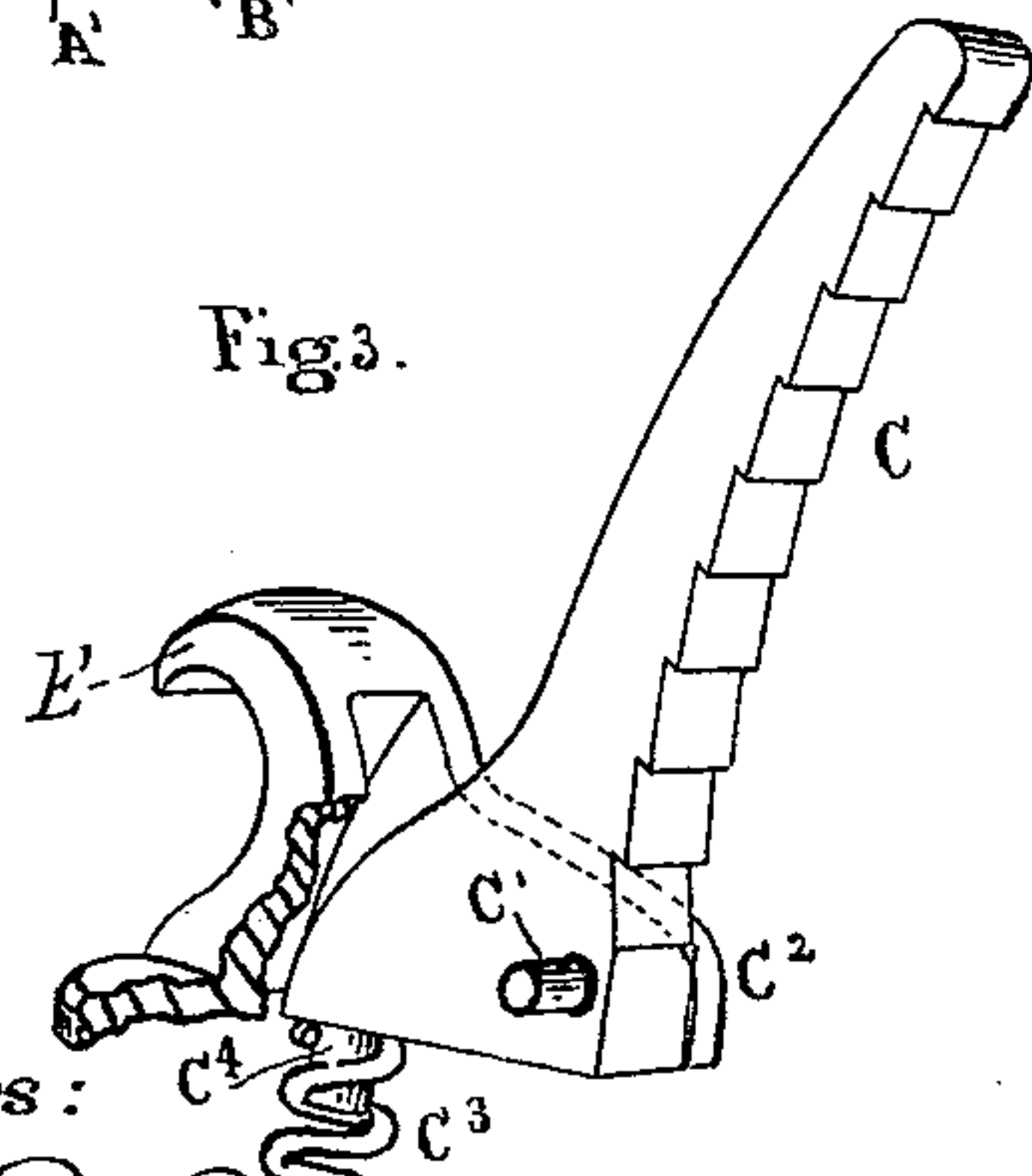
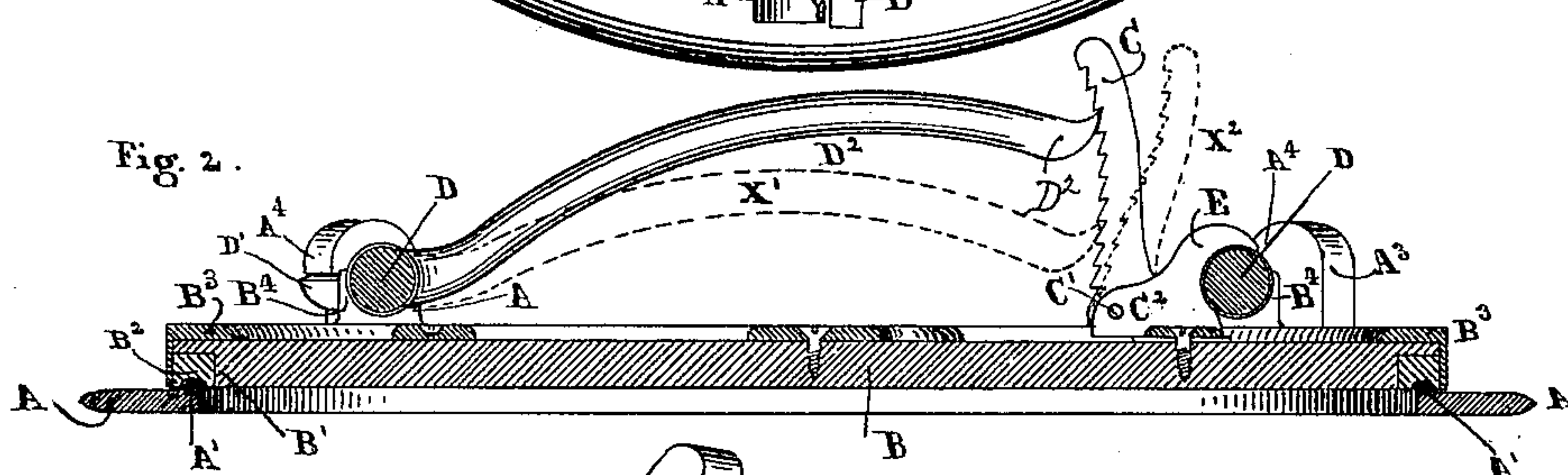
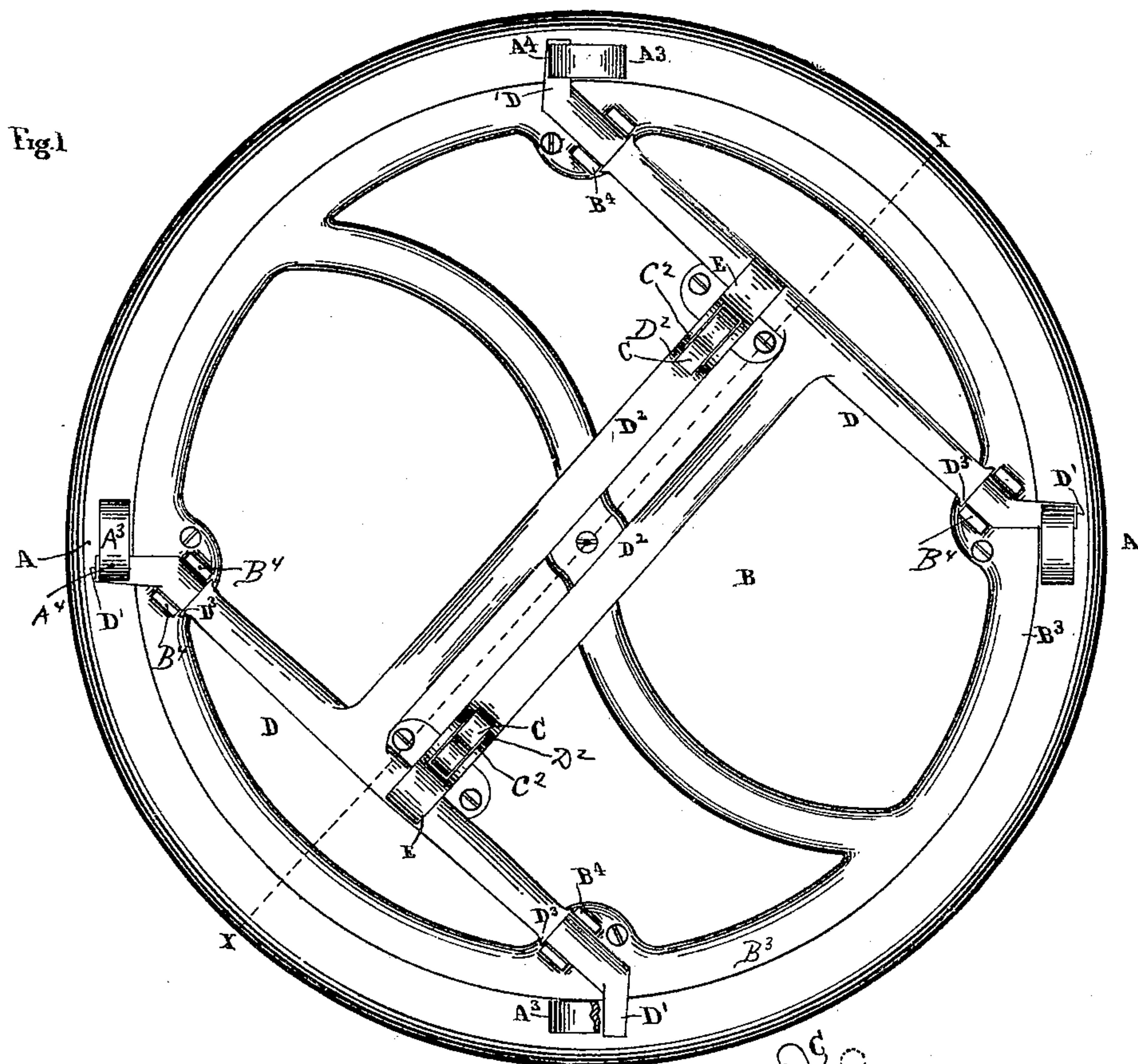


(No Model.)

E. P. BRYDEN.
CLOSURE FOR CHURNS.

No. 386,106.

Patented July 17, 1888.



Witnesses:
C. T. Downing.
W. H. Myers.

Inventor:
Elisha P. Bryden.
per
L. L. Morrison,
Att'y.

UNITED STATES PATENT OFFICE.

ELISHA P. BRYDEN, OF ROCKFORD, ILLINOIS.

CLOSURE FOR CHURNS.

SPECIFICATION forming part of Letters Patent No. 386,106, dated July 17, 1888.

Application filed May 1, 1888. Serial No. 272,522. (No model.)

To all whom it may concern:

Be it known that I, ELISHA P. BRYDEN, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented a certain new and useful Improvement in Closures for Revolving Barrel-Churns, of which the following is a specification.

The object of this invention is to provide an improved means of securing covers to barrel-churns; and it consists of certain new and useful constructions and combinations of parts, hereinafter described, and pointed out in the claims.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a plan view of my improved churn-cover. Fig. 2 is a view of a vertical section of the same through the dotted line X X of Fig. 1. Figs. 3 and 4 are isometric views in detail of portions of the churn-cover shown in Figs. 1 and 2.

Like letters of reference indicate corresponding parts throughout the several views.

A is a ring-head, having the periphery thereof beveled to adapt the same to enter the croze of a churn. (Not shown.)

A' is an annular flange projecting from the upper side of the ring-head A, which has a circular opening therein of the same diameter as the inside of the annular flange A'.

A³ represents studs projecting from the upper side of the ring-head A, and provided with outwardly-projecting retaining-lugs A⁴.

The parts just described are immovable and preferably integral.

B is a disk-head and forms the basis of the cover of the churn.

B' is a semi-rectangular groove in the periphery of the disk-head B, containing cork or other suitable elastic packing, B², which engages with the annular flange A' of the ring-head A.

B³ is a metallic casing, that entirely incloses the periphery and upper peripheral angle of the disk-head B.

B⁴ represents lower rock-shaft bearings, which project upward from the casing B³, and are preferably integral therewith.

C is a ratch, hinge-jointed upon the pintle C', between the lugs C², and actuated by means of the spring C³, which is coiled about the spur C⁴, both spring and spur being contained in a recess (not shown) in the top of the disk-head B.

D represents rock-shafts provided with outwardly-projecting cams D', adapted to engage with the retaining-lugs A⁴ of the studs A³, and the inwardly-projecting detents D², arranged and adapted to engage endwise with the ratches C. The rock-shafts D are mounted in the bearings B⁴, and are prevented from moving whenever the rock-shafts are rocked by means of the shoulders D³. The rock-shafts D are retained in the bearings B⁴ by means of the upper rock shaft bearings, E, which are secured to the disk-head B and furnish supports for the lugs C², being integral with the same.

After the cover has been placed over the opening A² in the ring-head, turn the former until the cams D' pass under the lugs A⁴. Then press the detents D² downward along the ratches C, as indicated by the dotted lines X', until the packing B² of the cover forms a tight joint with the flange A' of the ring-head A. When it is desired to remove the cover, press back the ratches C, as indicated by the dotted lines X², and raise the detents D². Afterward disengage the cams D' from the lugs A⁴ by turning the cover until the cams pass from under the same.

I claim—

1. In combination, the disk-head, the ratches, the rock-shafts provided with outwardly-projecting cams adapted to engage with retaining-lugs projecting from the end of a churn, and inwardly-projecting detents arranged and adapted to engage endwise with the ratches, and suitable bearings for attaching and supporting the same in operative position and relation.

2. In combination, the ring-head adapted to be peripherally seated in the croze of a churn and provided with upwardly-projecting studs, the latter being furnished with retaining-lugs, a disk-head with the ratches and upper rock-shaft bearing mounted thereon, the peripheral casing of the disk-head having lower rock-shaft bearings projecting upward therefrom, and the rock-shafts provided with outwardly-projecting cams adapted to engage with said retaining-lugs, and inwardly-projecting detents arranged and adapted to engage with said ratches, substantially as described, and for the purpose set forth.

ELISHA P. BRYDEN.

Witnesses:

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