

(No Model.)

J. D. COPPERFIELD.
BARREL HEAD.

No. 597,798.

Patented Jan. 25, 1898.

FIG. 1.

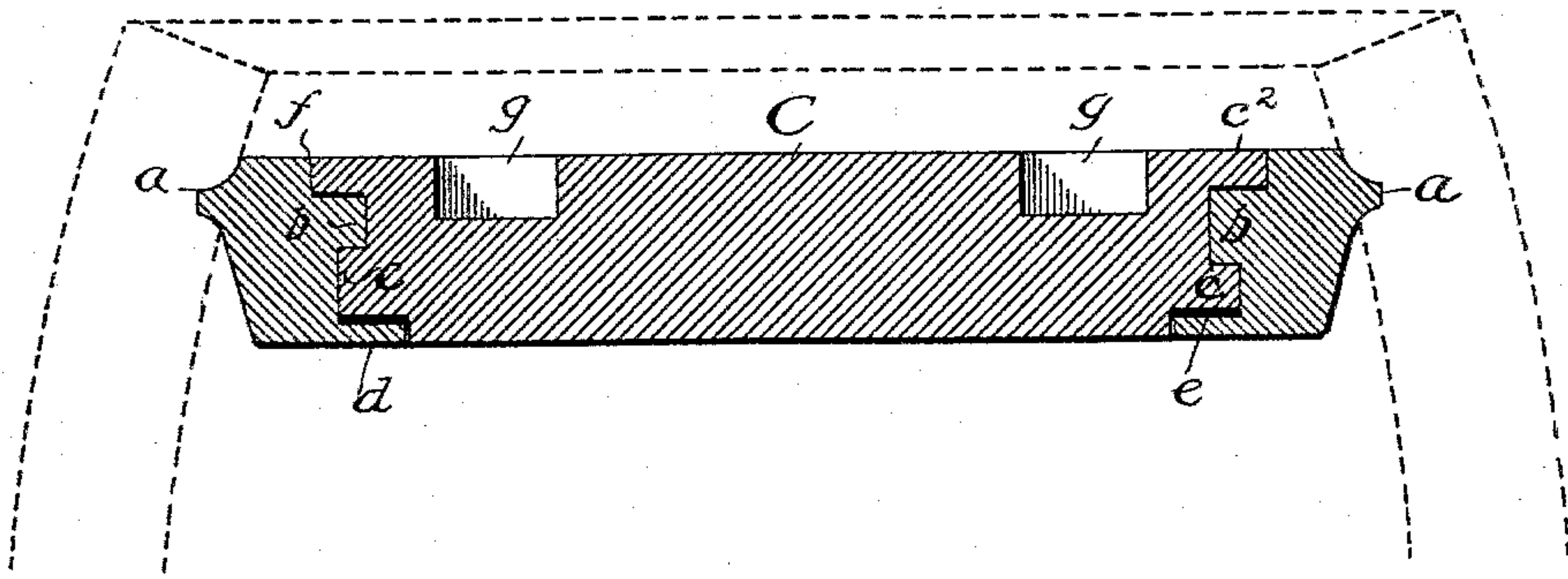


FIG. 2.

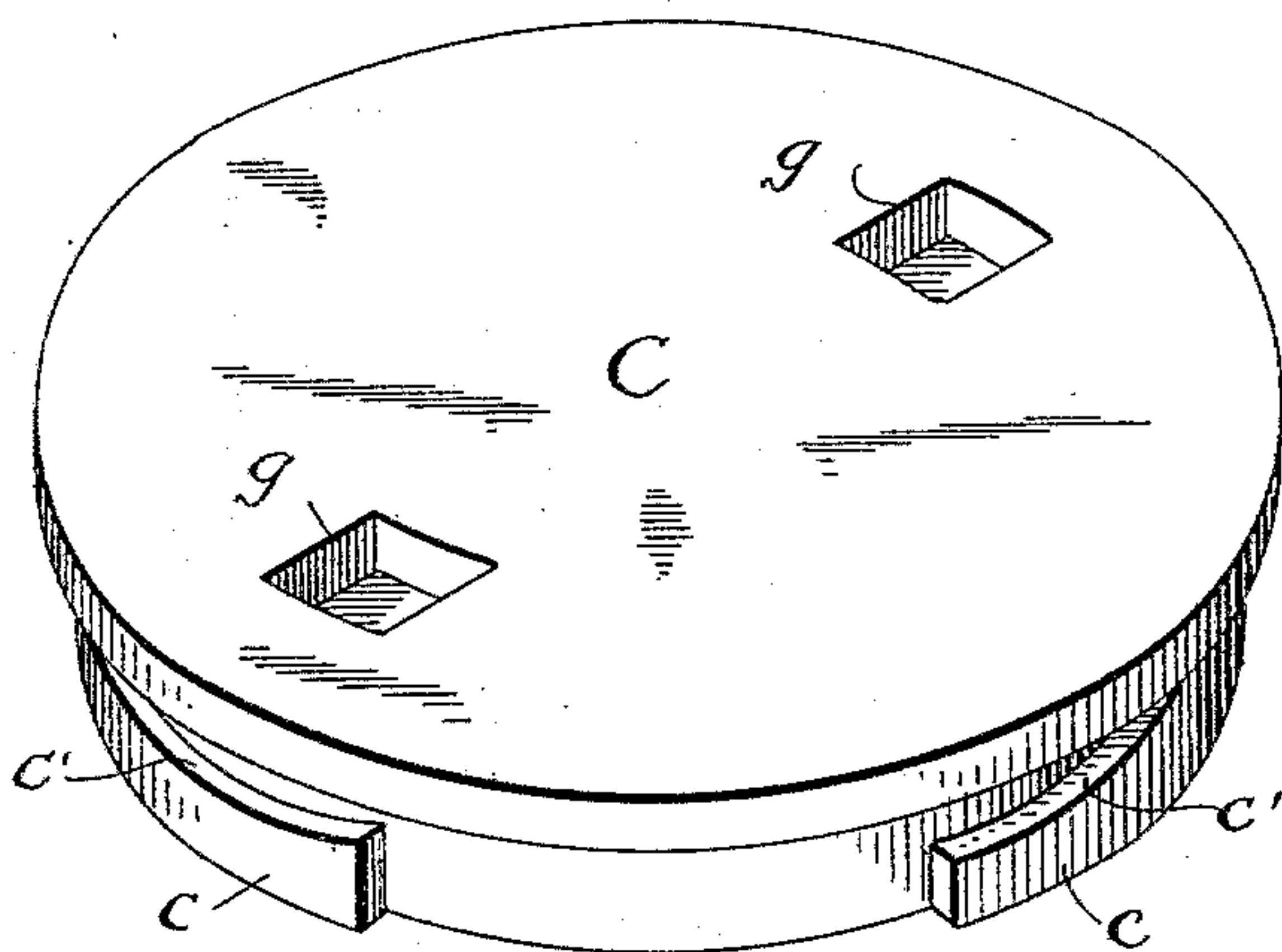
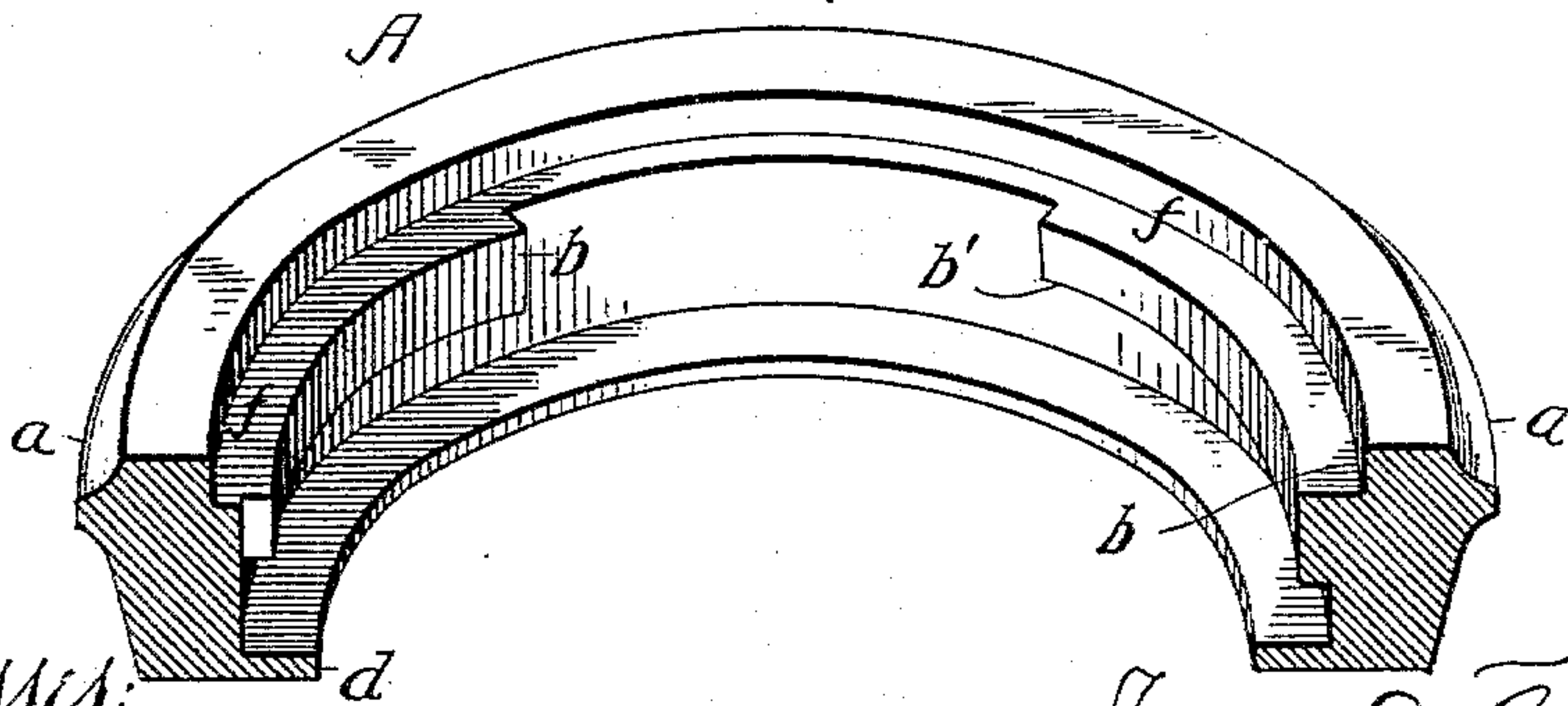


FIG. 3.



Witnesses:
John B. Carter
Frederick B. Richter

Inventor:
James D. Copperfield,
by his Attorney,
James Pettit.

UNITED STATES PATENT OFFICE.

JAMES D. COPPERFIELD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-FOURTH TO FREDERICK C. RIGHTER, OF SAME PLACE.

BARREL-HEAD.

SPECIFICATION forming part of Letters Patent No. 597,798, dated January 25, 1898.

Application filed April 22, 1897. Serial No. 633,283. (No model.)

To all whom it may concern:

Be it known that I, JAMES DAVID COPPERFIELD, a citizen of the United States, and a resident of the city of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Barrel-Heads, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to provide a barrel-head with a cap or cover which may be readily removed from position and which when in place will form a tight seal or joint with the head proper, as more fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a sectional elevation of a barrel-head provided with a removable cap or cover in accordance with my invention. Fig. 2 is a perspective view of the cap or cover detached, and Fig. 3 is a sectional perspective view of the barrel-head.

In barrels for containing oils, pickles, and similar articles it is found desirable to employ a cap or cover which during the intervals of opening of the barrel may be tightly sealed to prevent the access of air, and this cannot ordinarily be accomplished in barrels of the usual construction where the entire head is usually removed and then simply laid on top of the barrel, so that it may be conveniently removed.

In carrying out my invention I provide the barrel-head with a sealing cap or cover which will preserve the tankage and may be readily removed to allow access for washing the interior of the barrel, while when placed in position it will permit the carting or rolling of the barrel from place to place without danger of spilling its contents.

Referring to the drawings, A represents the barrel-head, which is in the form of a ring adapted for the reception of the cap or cover C. On the periphery of the ring is formed a flange *a*, adapted to fit into a croze or groove provided near each end of the barrel-staves, as indicated by dotted lines in Fig. 1. The upper surface of the flange has a concave face curving from the edge of the flange to the upper surface of the head, and the lower surface of the flange has a similar concaved

curve which merges into the inclined periphery of the head A.

The head is in the form of a ring provided on its inner surface with a series of spaced wedges *b*, inclined on their lower edges *b'* and adapted to engage with the inclined upper surfaces *c'* of wedges *c*, provided on the periphery of the cap C. At the lower edge of the ring A is a ring or flange *d*, projecting inwardly to a distance beyond the periphery of the main portion of the cap C, and on the upper surface of this flange is placed a ring *e*, of rubber or other yielding material, which is compressed between the upper surface of the flange and the lower surface of the cap or cover to form a liquid-proof joint.

Projecting from the upper portion of the cap C is a flange *c'*, adapted to a recess *f*, formed in the ring A at a point above the wedges *b* and so arranged with respect to the lower flange *e* that contact between the flange *c'* and the bottom of the recess *f* will prevent excessive binding between the cap C and the rubber ring *e*.

In the upper surface of the cap C are formed two diametrically opposite recesses *g*, in which may be placed a suitable tool for effecting the turning of the cap and effecting its removal from or its insertion into the ring A.

In operation the cap C is inserted into the ring A until its lower edge rests against the rubber ring *e*, the spaced wedges *b* permitting the free passage of the similarly-spaced wedges *c* on the cap, and the latter is then turned by the insertion of a suitable tool in the openings *g* until the oppositely-inclined wedges *b* and *c* force the cap down and effect the clamping of the rubber ring *e* between the bottom of the cap and the lower flange *d*, while any excessive clamping is prevented by contact of the flange *c'* of the cap with the bottom of the recess *f*.

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

In combination a barrel-head, A, having its central portion cut away to form a ring adapted to fit within the stave-croze, the periphery of the head having a reduced flange, *a*, formed by two concaved curves, the upper of which extends from the upper outer edge of the flange to the upper surface of the head, and

the lower of which gradually merges into the inclined periphery of the head, the upper inner portion of said ring being provided with an annular recess, *f*, spaced wedge-blocks, *b*, 5 having inclined lower surfaces, *b'*, provided on the interior of the ring, a lower flange, *d*, projecting inwardly from the lower portion of the ring to a point beyond the inner line of the wedge-block, a packing-ring, *e*, provided on the upper surface of said flange, a 10 cap or cover, *C*, having an upper outwardly-projecting flange, *c*², adapted to fit within the recess, *f*, and having in its upper surface two diametrically opposite openings, *g*, adapted 15 for the reception of an operating-tool, spaced wedge-blocks, *c*, projecting from the periph-

ery of the cover at a point below the flange, *c*², said wedge-blocks having upper inclined surfaces, *c'*, adapted to coact with the inclined lower surfaces of the wedges, *b*, and the lower 20 portion of said wedges, *c*, and the lower outer edge of the cap or cover adapted to clamp and bind upon the packing-ring, *e*, and form a liquid-proof joint, substantially as and for 25 the purpose set forth.

In witness whereof I have hereunto set my hand this 20th day of April, A. D. 1897.

JAMES D. COPPERFIELD.

Witnesses:

FREDERICK C. RIGHTER,
EDMUND S. MILLS.