

(No Model.)

2 Sheets—Sheet 1.

G. H. HOOPER.

MACHINE FOR TRIMMING THE CURLS OR ROLLS OF HAT BRIMS.

No. 352,690.

Patented Nov. 16, 1886.

Fig. 1.

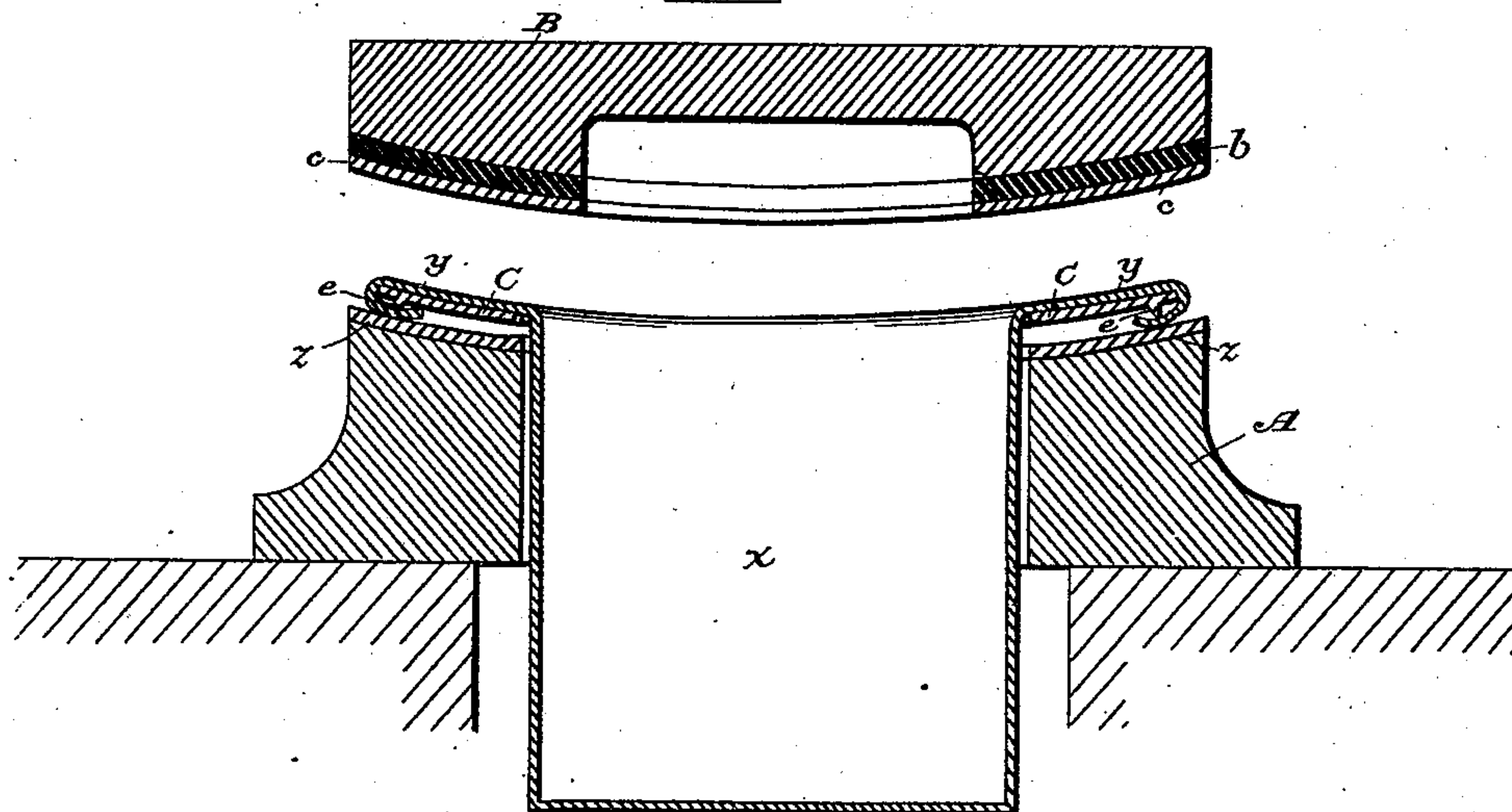


Fig. 2.

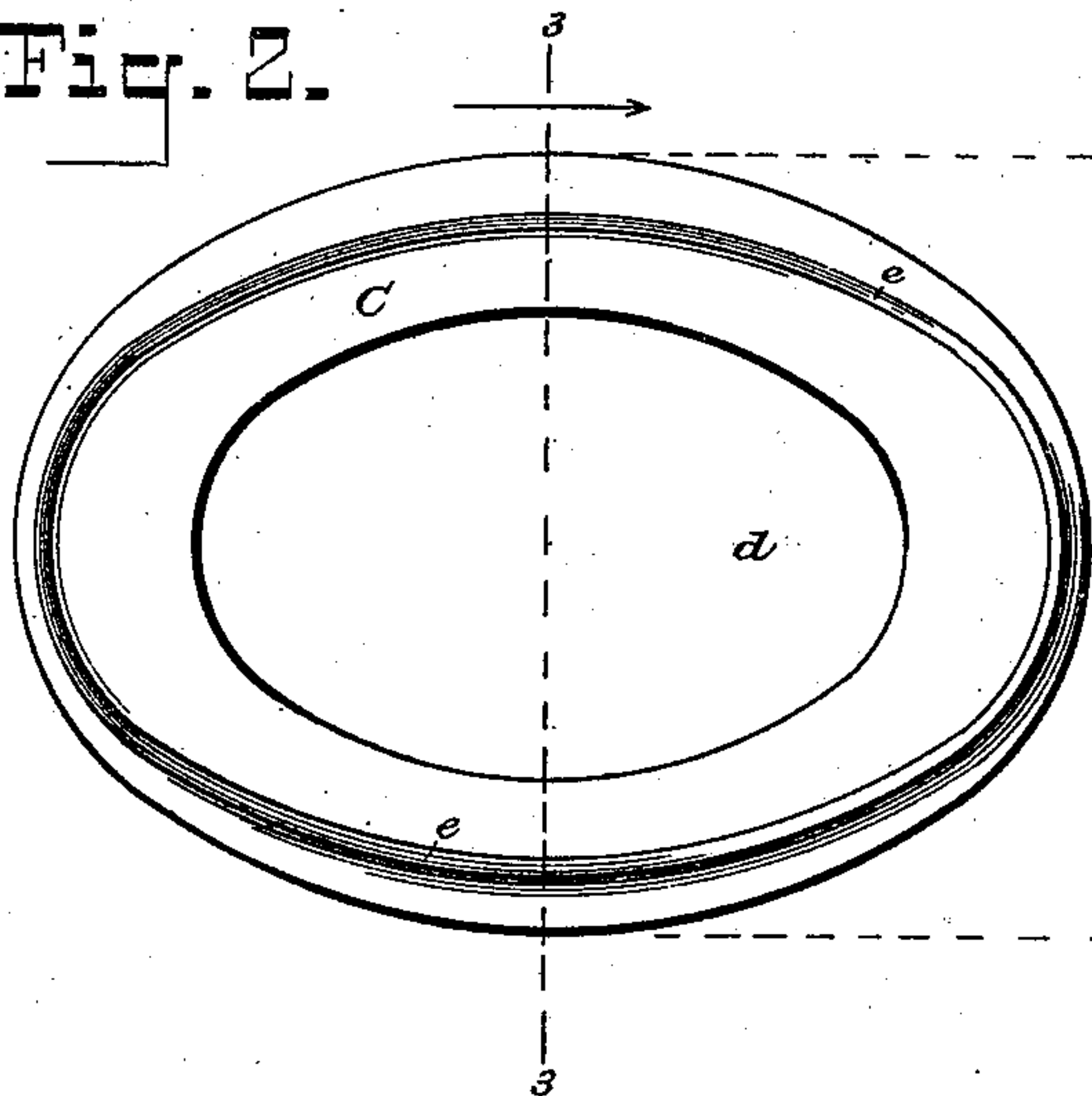
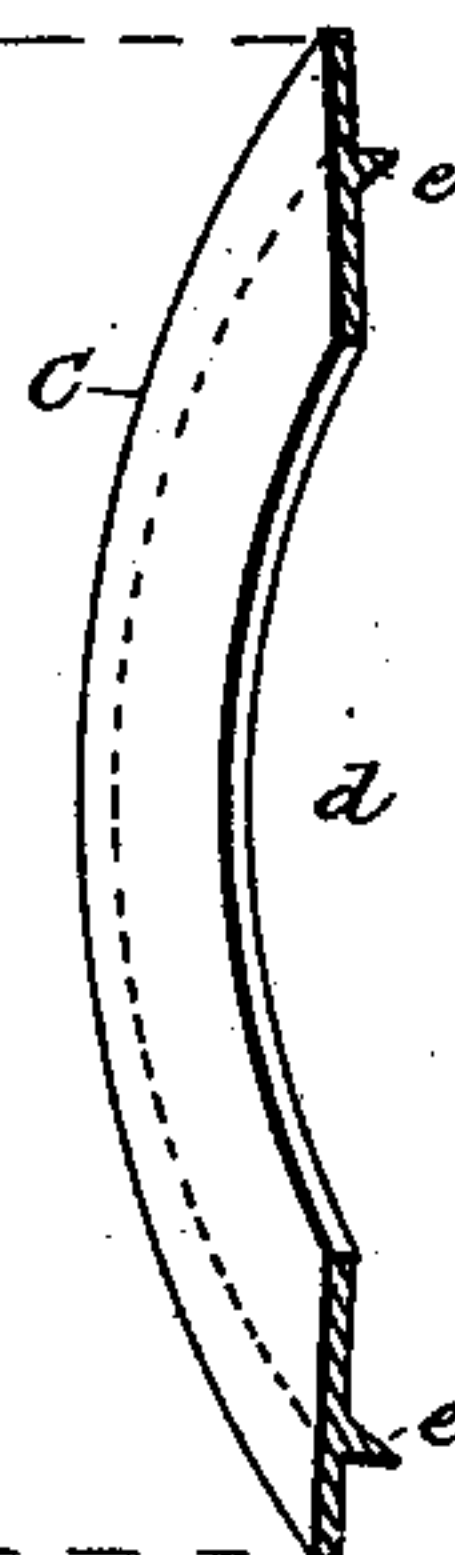


Fig. 3.



WITNESSES:

E. B. Bolton

Frank Moulin

INVENTOR:

George Henry Hooper

By his Attorney,

Henry Conner

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Fig. 4.

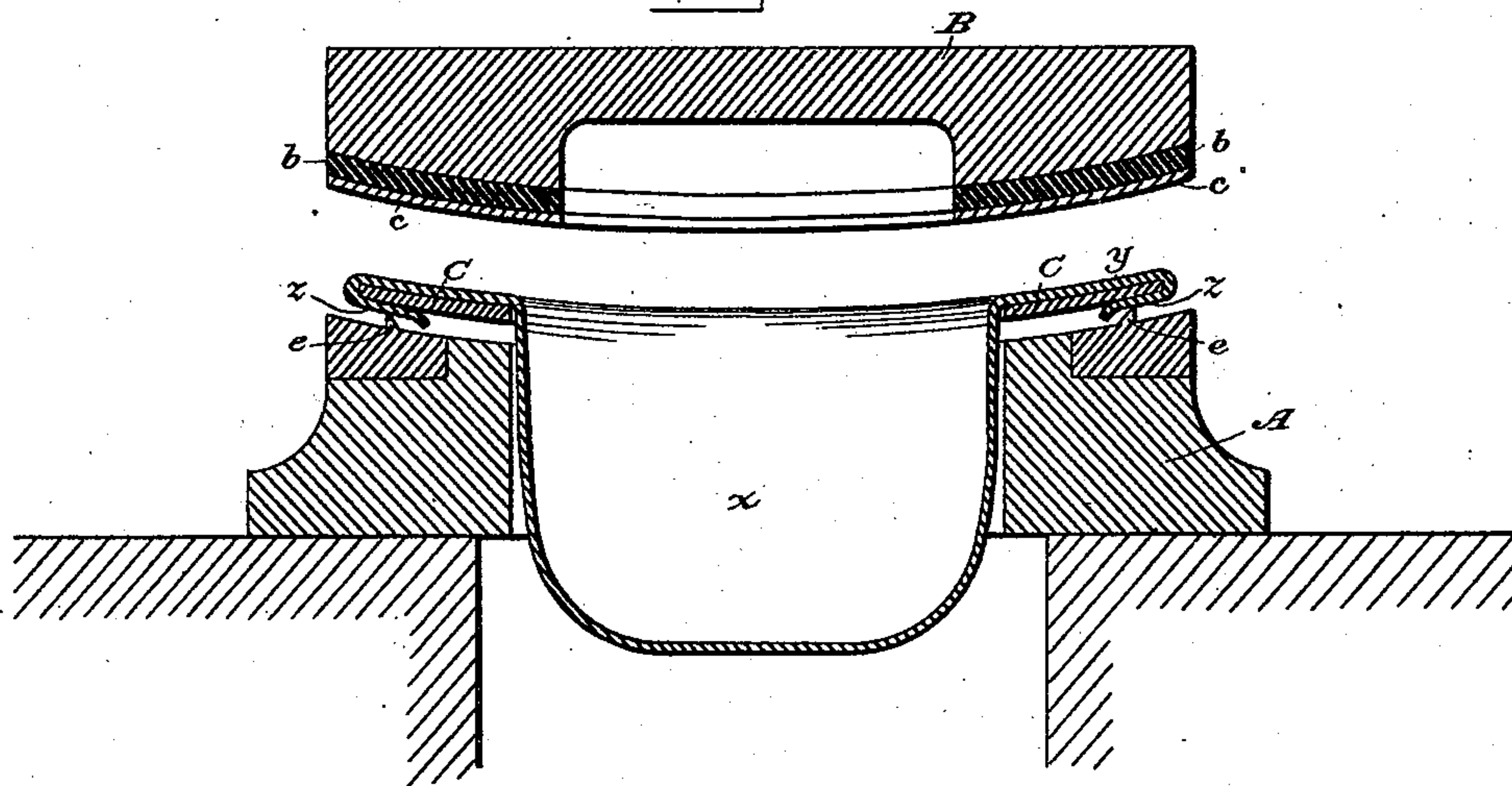
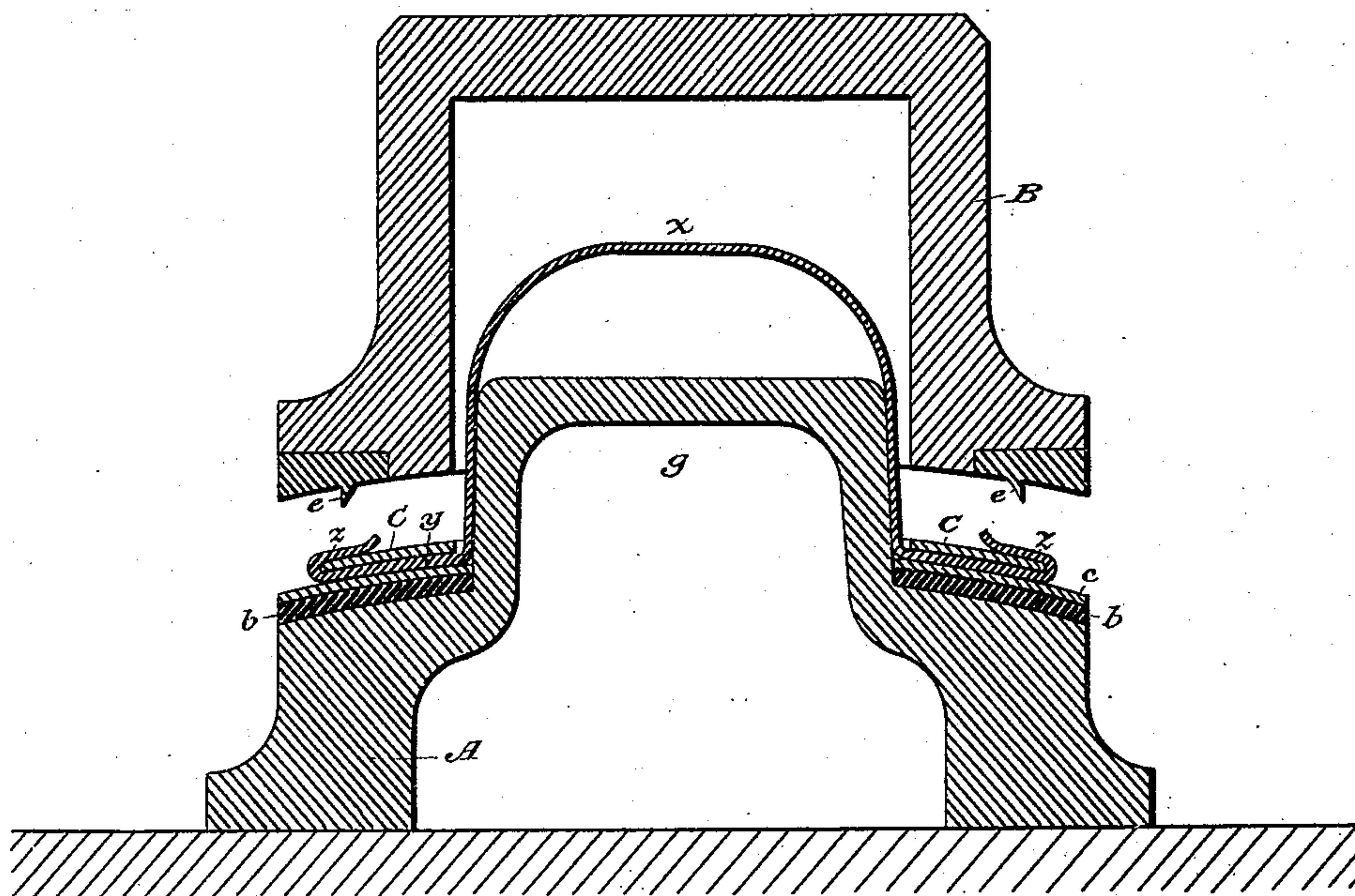


Fig. 5.



WITNESSES:

E. B. Bolton

Frank Moulin

INVENTOR:

George Henry Hooper

By his Attorney,

Henry Condit

UNITED STATES PATENT OFFICE.

GEORGE HENRY HOOPER, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF, BY DIRECT AND MESNE ASSIGNMENTS, TO EDMUND McLOUGHLIN, JR., AND ANDREW CAMPBELL, BOTH OF SAME PLACE.

MACHINE FOR TRIMMING THE CURLS OR ROLLS OF HAT-BRIMS.

SPECIFICATION forming part of Letters Patent No. 352,690, dated November 16, 1886.

Application filed July 13, 1886. Serial No. 207,871. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY HOOPER, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Machines for Trimming the Curls or Rolls of Hat-Brims, of which the following is a specification.

In the manufacture of stiff hats, one of the steps in the manufacture is to fold the edge of the brim, while it is yet hot and pliable, inward over the edge of a plate which has a central aperture to fit about the body of the hat, and which is of the proper size for and has the external contour of the hat-brim. In the after process of finishing the hat, the rough and crimped margin of the roll or curl thus turned over is trimmed off by hand.

My present invention relates to a machine for trimming off this margin of the roll, the object being to effect the trimming smoothly, evenly, and expeditiously at one simple operation.

My invention will be hereinafter fully described, and its novel features carefully defined in the claims.

In the drawings which serve to illustrate my invention, Figure 1 is a vertical mid-section of my press or machine for trimming the roll on the hat-brim, with its appurtenances. Fig. 2 is an under side plan view of the folding-plate or brim-plate provided with the annular trimming-cutter; and Fig. 3 is a transverse section of same, taken on line 3 3 in Fig. 2. Figs. 4 and 5 illustrate modified forms of the machine, which will be fully hereinafter described.

Referring first to Figs. 1 to 3, A represents any solid form of bed for the press, provided with a suitable aperture or recess to receive the body of the hat. The upper face of the bed A has the proper "warp" or curvature to properly fit to the upper face of the hat-brim, or nearly so, and this face is best composed of a plate, *a*, of copper or other similar soft metal.

B is the follower, the lower face of which has a contour corresponding to the face of the bed A. I prefer to cushion the face of the

follower by interposing a cushion, *b*, of rubber, between the body of the follower and the face-plate *c* of the same. The purpose of this will be hereinafter described.

C is the plate over which the roll on the margin of the hat-brim is folded or turned. This plate has an aperture, *d*, of the proper size and contour to permit the body of the hat to pass through and fit snugly in, and its outer contour corresponds to that of the hat-brim. This plate I prefer to turn up from a plate of steel, and in the process of turning I form on its surface an annular cutter, *e*, which has the form it is designed to give the margin of the roll on the hat-brim when trimmed.

The operation is as follows: In the construction and shaping of the hat the plate C is applied and the brim turned in over its edge while the hat is warm and pliable. In Fig. 1, *x* is the body of the hat, *y* the brim, and *z* the roll turned inward over the edge of plate C, the cutter *e* standing under the roll *z*. The hat is now placed on the bed of the press, the body passing through the aperture therein, and the brim, together with the plate C, resting on the face-plate *a* of the bed. The follower B is now brought down on the brim, and this serves to force the annular cutter *e* through the material of the roll *z*, and thus trim off the surplus and crimped portion of the same, leaving a smooth and regular margin. The hat is now lifted out of the press-bed, and the plate C removed from under the roll or in-turned margin *z* of the brim. This may be readily effected while the hat is still warm and pliable.

As the plate C is usually thin and somewhat flexible and the material to be trimmed off is usually somewhat uneven in thickness, I prefer to cushion the follower B, as described, so that it may accommodate itself somewhat to the resistance offered at the several points, and yet not yield enough to prevent the cutter from doing its work. The cutter need not be very sharp, but should have a smooth edge. If very sharp, it is apt to cut into the plate *a* and form a burr thereon. The aperture *d*, by fitting close to hat-body, forms a guide for placing the cutter.

It is not essential that the cutter *e* be formed integrally with the plate C. It might be made separately and attached thereto. The distance of the cutter *e* from the margin of the plate C at the various points will be governed by the width desired for the inturned roll *z*.

In Fig. 4 I have shown a slight modification wherein the cutter *e* is formed upon or secured to the bed A of the press and cuts through from the outside inward. In this construction the plate C should be made of copper, brass, or other moderately-soft metal.

Fig. 5 illustrates another modification, which is substantially an inversion of that shown in Fig. 4. In this case the hat is turned crown up, and is slipped over a block, *g*, on the press-bed. The cutter *e* is carried by the follower B. In this case I cushion the face of the bed A with rubber *b'* under a face-plate, *c'*.

I have not deemed it necessary to show any mechanism for operating the follower B, as any of the well-known means may be employed, as, for example, a screw or a lever; or it might be simply placed and then receive a blow. I prefer a screw, however, as the most convenient means of forcing or pressing down the follower in order to drive the cutter through the roll. Indeed, it would be feasible to use the essential feature of my invention without the aid of a press. For example, a plate similar to plate C, with an aperture, *d*, for the hat-body, and provided with an annular cutter, *e*, at its margin, might be placed on the hat-brim, so that the roll *z* would extend over the cutter. The trimming could then be effected with a hammer or roller by exerting sufficient pressure on the roll *z* to cause the cutter to penetrate it. In this case the ordinary brim-plate, C, might be used to carry the cutter, or the cutter might be carried by another plate, which need not extend beyond the cutter.

Having thus described my invention, I claim—

1. A machine for trimming the curls or rolls of hat-brims, comprising a press-bed to receive and support the hat-brim, a follower to press on the hat-brim as it rests on the press-bed, a brim-plate which rests on the hat-brim, and over which the edge of the brim is folded or rolled, and an annular cutter, *e*, attached to one of these parts, substantially as set forth.

2. A machine for trimming hat-brims, comprising a press-bed to receive and support the hat-brim while it is being trimmed, a follower to press on the hat-brim as it rests on the press-bed, the brim-plate C, having an aperture, *d*, to receive the hat-body, and an exterior contour corresponding to the contour of the hat-brim, and an annular cutter, *e*, attached to or formed integrally with said plate C, said cutter being arranged to stand under the roll on the edge of the hat-brim, substantially as set forth.

3. As a means for trimming the edge of the roll or turned-over margin of a hat-brim, a plate with an aperture to receive and fit the hat-body, and an annular cutter, *e*, attached to or formed integrally with said plate, substantially as set forth.

4. The combination, with the brim-plate and annular cutter, of the follower of the press provided with a cushion on its operating-face, substantially as and for the purposes set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE HENRY HOOPER.

Witnesses:

HENRY CONNETT,
ROBERT JACKSON.