

(No Model.)

2 Sheets—Sheet 1.

J. REDWAY.
MACHINE FOR FORMING HAT BRIM CURLS.

No. 597,807.

Patented Jan. 25, 1898.

Fig. 1.

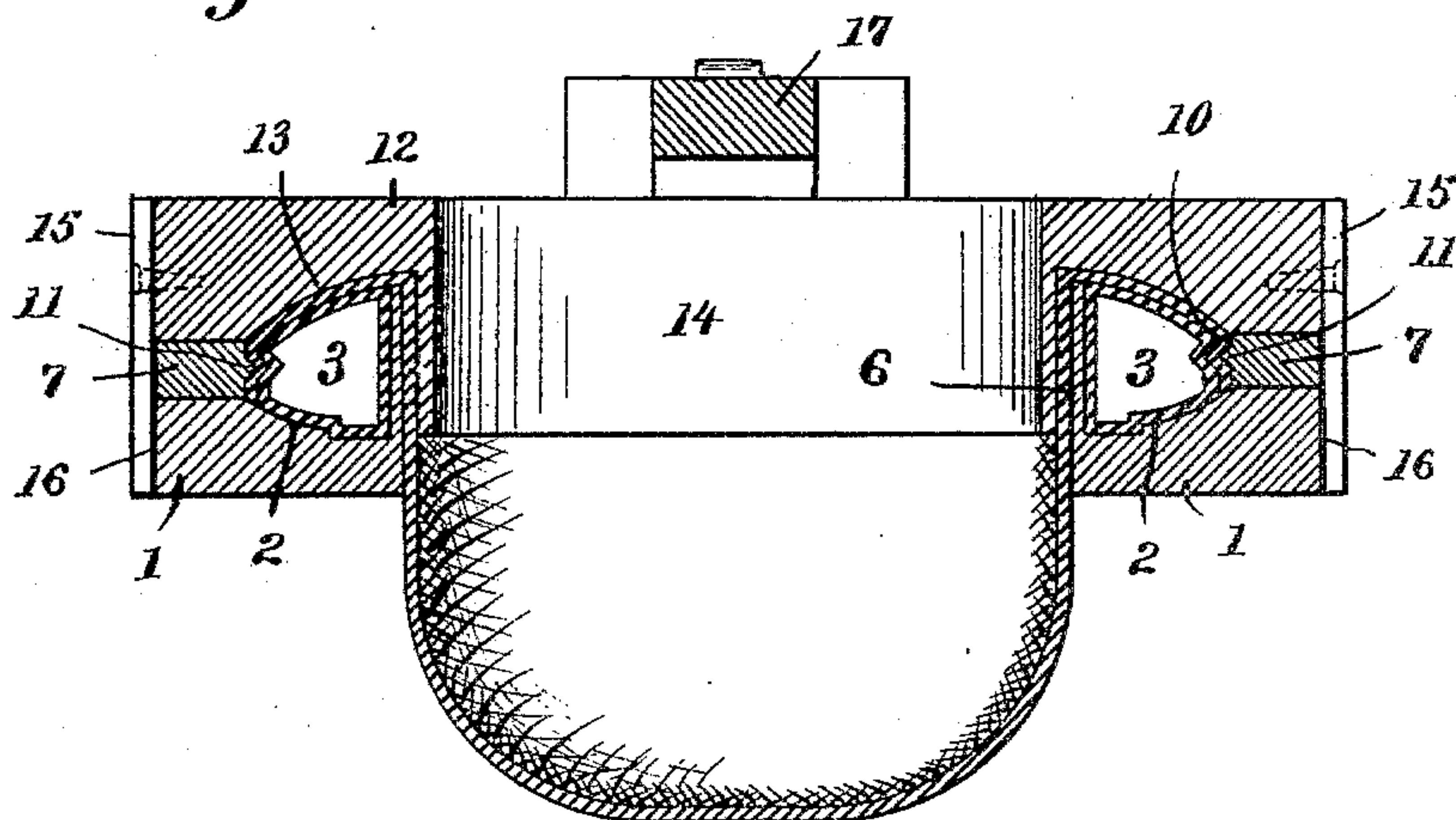
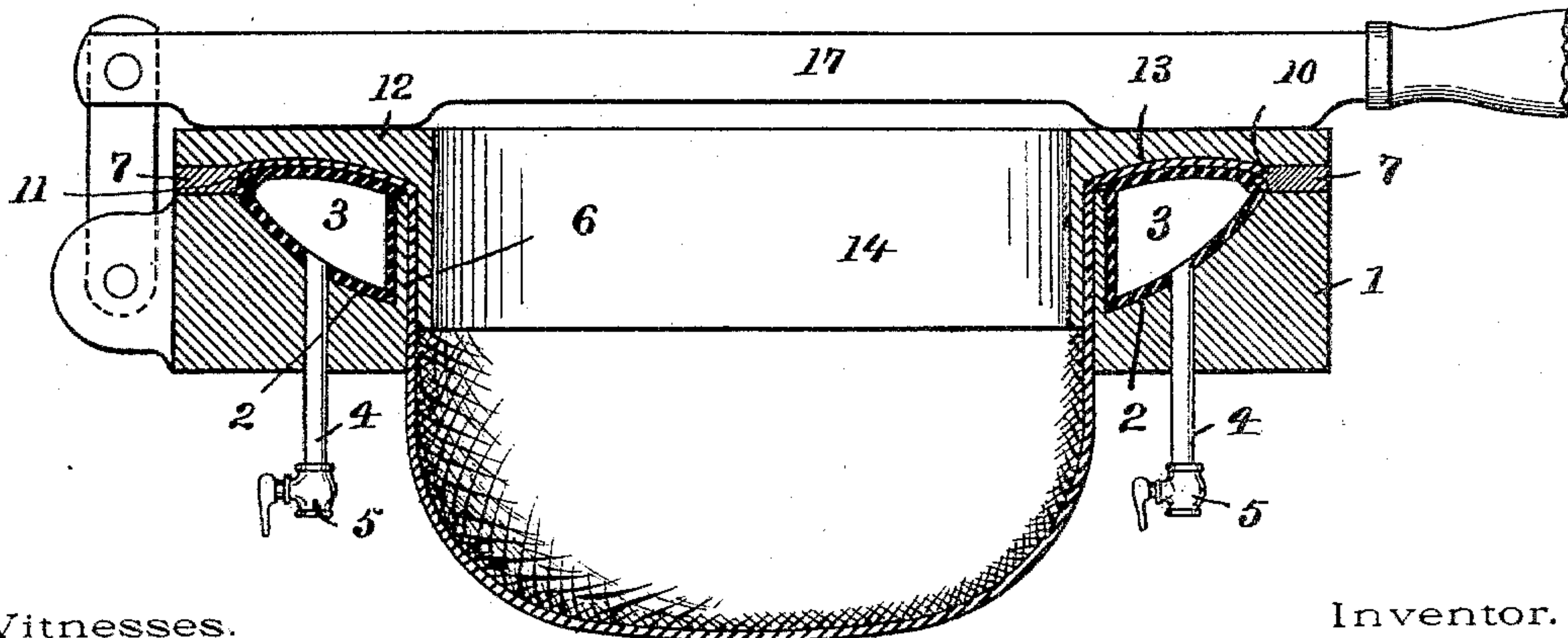


Fig. 2.



Witnesses.

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By
Chamberlain & Newman
His Attorneys

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Fig. 3.

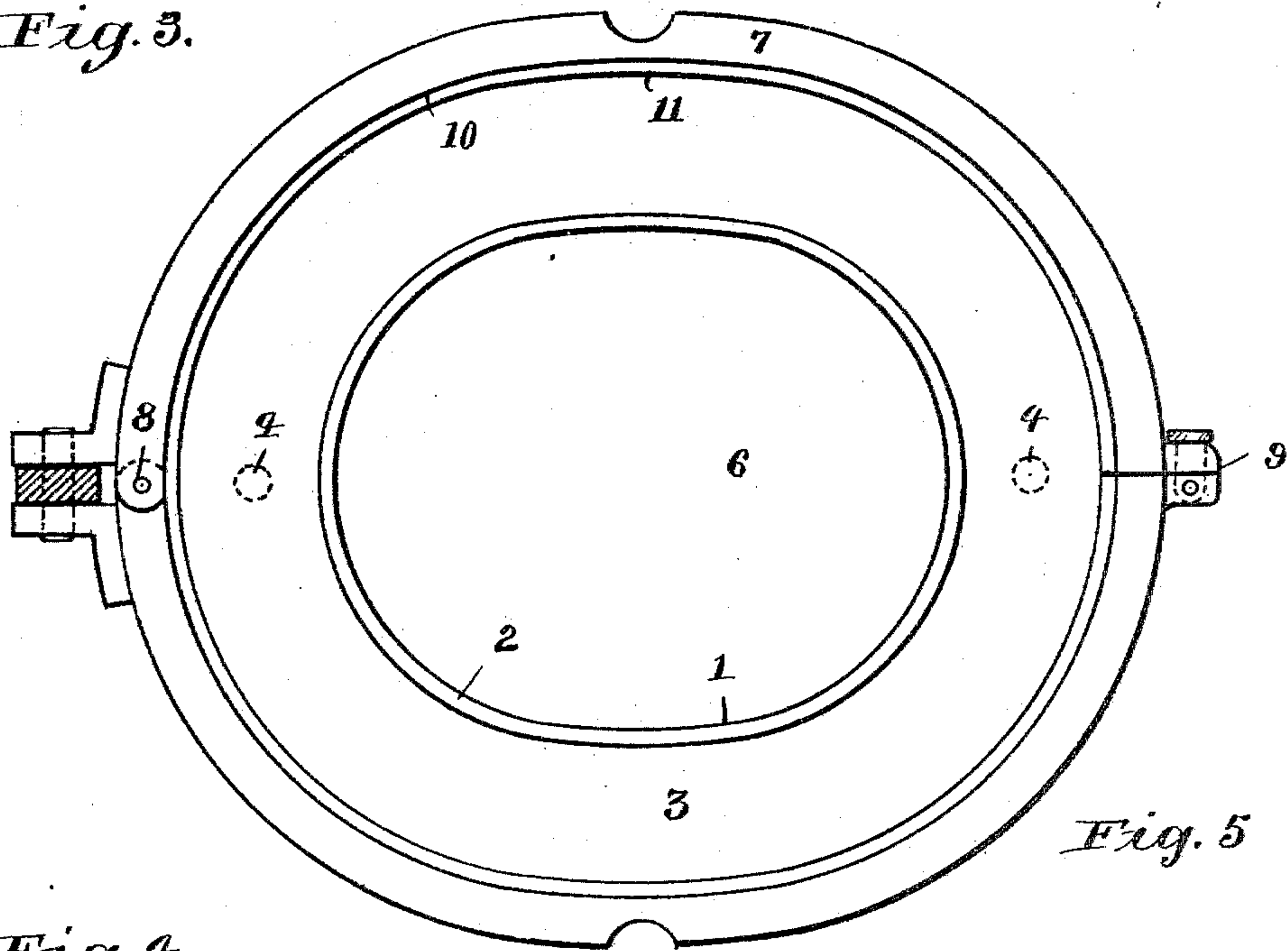
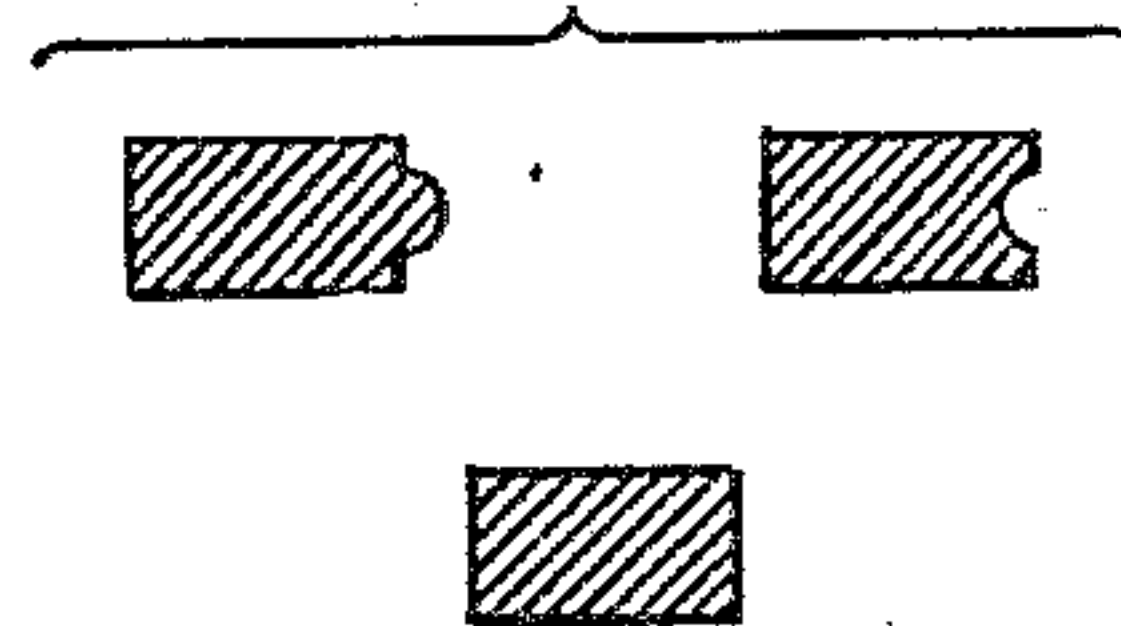
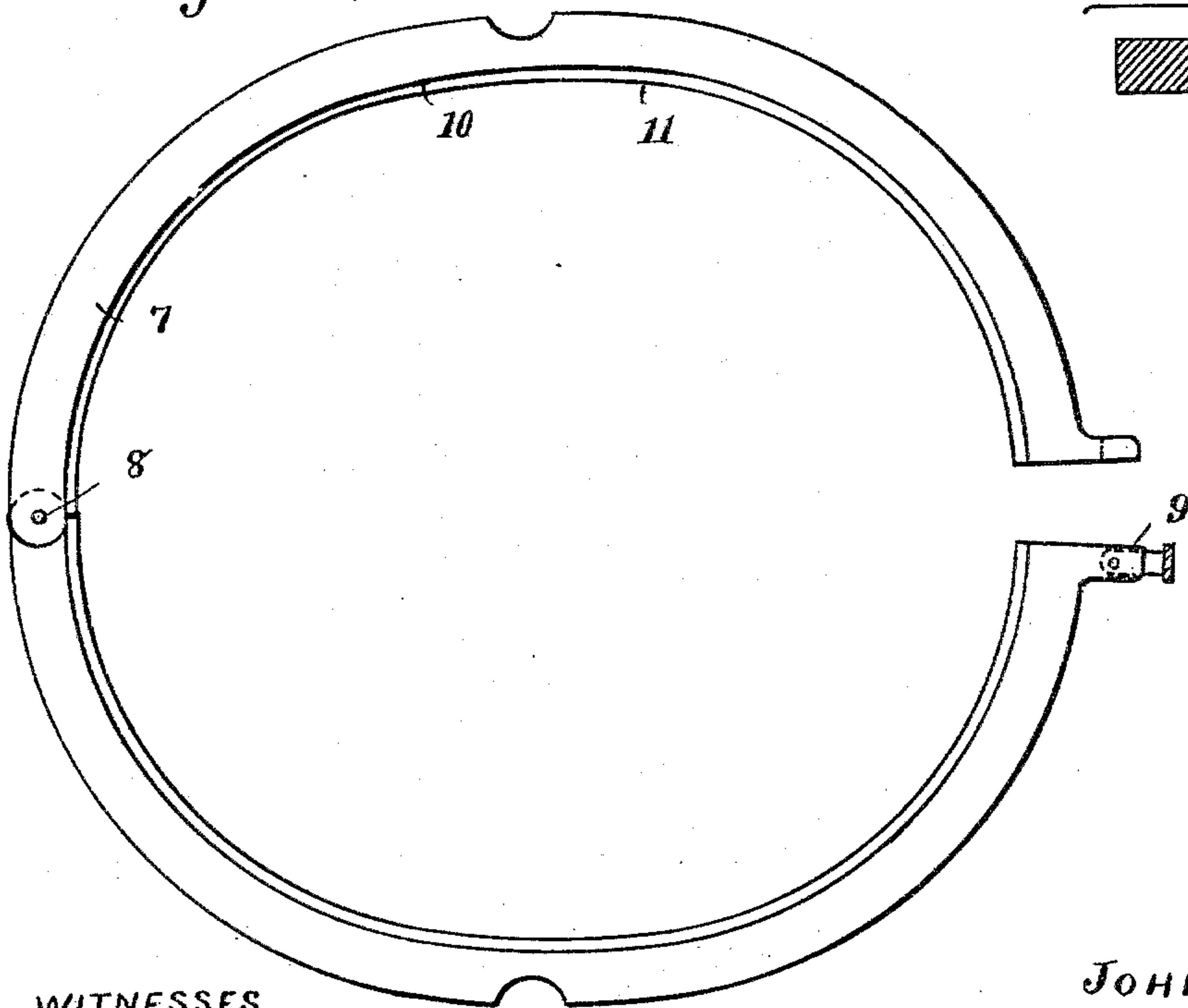


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN REDWAY, OF SOUTH NORWALK, CONNECTICUT.

MACHINE FOR FORMING HAT-BRIM CURLS.

SPECIFICATION forming part of Letters Patent No. 597,807, dated January 25, 1898.

Application filed August 13, 1897. Serial No. 648,118. (No model.)

To all whom it may concern:

Be it known that I, JOHN REDWAY, a citizen of the United States, and a resident of South Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Machines for Forming Hat-Brim Curls, of which the following is a specification.

This invention relates to new and useful improvements in machines for curling hat-brims, and particularly to that class known as "press-curlers."

It is the object of my invention to improve upon devices of the above class by providing a specially-constructed curl-plate in connection with a suitable mold provided with an inflatable bag which acts upon the brim and shapes the same, as will be more fully explained.

With the above objects in view I have devised the simple and novel construction shown in the accompanying drawings, forming a part of this specification, and upon which similar numerals of reference denote like or corresponding parts throughout the several figures, and of which—

Figure 1 is a central vertical longitudinal section of my improved curling apparatus containing a hat therein. Fig. 2 is a cross-section taken at a right angle to Fig. 1. Fig. 3 shows a plan view of the lower section or base of my improved curler. Fig. 4 is a plan view of a detachable ring forming an important part of my mold. Fig. 5 shows three cross-sectional views of modified forms of rings which are used to produce different styles of curls.

As will be apparent from an inspection of the drawings, my novel curler comprises substantially three parts—viz., an upper, lower, and an intermediate section. Said sections when properly assembled constitute a mold in which the hat-brim is contained and shaped, the hat being placed therein while in a heated and flexible condition. Pressure is applied to the brim through the medium of an inflatable bag, which operates against the under side of said brim and presses it against the upper part of the mold proper.

The lower section 1, or "base," as it is more properly termed, is formed of one piece of metal and is provided with an annular recess

2 for the purpose of receiving an inflatable ring-like bag 3, provided with supply-pipes 4 4, having cocks 5, by means of which the supply is controlled. The base 1 is further provided with a central opening 6, which in practice is made of a proper shape and size to receive hat-crowns of a corresponding size, as will be apparent by referring to Figs. 1 and 2.

Upon the base 1 is designed to rest a separable ring 7, which is hinged together at the rear, as at 8, the front or uniting ends being provided with any suitable clamp 9 for holding them together. As will be apparent, the inner edge 10 of said ring forms a wall against which the peripheral edge of the hat-brim is pressed and formed. In this connection it will be obvious that the particular shape of said wall determines the shape of the curl formed thereagainst. In Figs. 1 to 4 is illustrated a ring with a V-shaped rib 11, and in Fig. 5 I have shown several sectional views illustrating oval, concave, and straight vertical edged rings. These latter forms of rings are used to produce different styles of curls and can be substituted one for the other without any further change in the mold, thus producing different styles of curls in a single machine.

The top section 12 of the mold is of a similar outline to the base and is provided with an annular recess 13 to rest upon and receive the hat-brim, which recess substantially corresponds in width with the recess 2 of the base. Said base is further provided with an inner depending flange 14, which in practice is made of a proper size to snugly fit into a hat-crown, and thus hold the same between it and the flange of the base.

The several main sections comprising my curler can be assembled in any desired or preferred manner. In the drawings I have shown two centering-pins 15 secured to the periphery of the top section, which pins engage recesses 16 in the periphery of the base. Said connection is for the purpose of properly centering the several parts. In addition to the above I provide a lever 17 for clamping said parts together, as shown in Fig. 2, which lever, as will be seen, is linked to the base at 18, the free end being designed to lie across the top section and be pressed down

by the operator during each curling operation.

The operation of my machine is quite simple and as follows: The operator places a steamed hat into the base 1, the crown of said hat protruding through the opening 6 and the brim resting upon the annular bag. The separable detachable ring is next placed in position around the brim and fastened together by means of its clamp 9. The top section 12 is next laid upon the ring, the depending flange 14 of said section entering the crown of the hat, as shown in Figs. 1 and 2. After the parts have been properly assembled, as above, the lever 17 is pressed down upon the top section in a manner to clamp the parts firmly together, after which the cocks 5 are operated in a manner to supply the water or steam pressure to the bag, which in turn imparts its force against the under side of the brim in a manner to press the latter firmly against the top mold, which completes the operation. After the curl is formed the cocks are closed, the parts disassembled, and the hat removed.

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

1. In a hat-brim-curling apparatus, the combination of a base provided with an inflatable circular bag, a top section adapted to fit upon said base and provided with a de-

pending flange, a detachable intermediate ring between said sections and having a specially-shaped interior edge adapted to encircle the bag aforesaid and determine the shape of the curl, substantially as described.

2. In a hat-brim-press-curling apparatus, the combination of a base substantially as herein shown and described, and consisting of an annular recess, an inflatable bag fitted into said recess, a ring adapted to encircle said bag and having a V-shaped rib upon its inner edge to form a special form of curl, a top section adapted to cover said ring and bag, and means for clamping said parts together.

3. A hat-brim-press-curling apparatus substantially as herein shown and described, the same containing a base, having a central opening, a top section adapted to cover said base and bearing a depending flange to fit into the opening aforesaid, an inflatable bag fitted between said sections, a separable ring fitted between said sections and bearing specially-shaped interior edges, to determine the shape of the hat-curl.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 6th day of May, A. D. 1897.

JOHN REDWAY.

Witnesses:

C. M. NEWMAN,
R. H. NEWMAN.