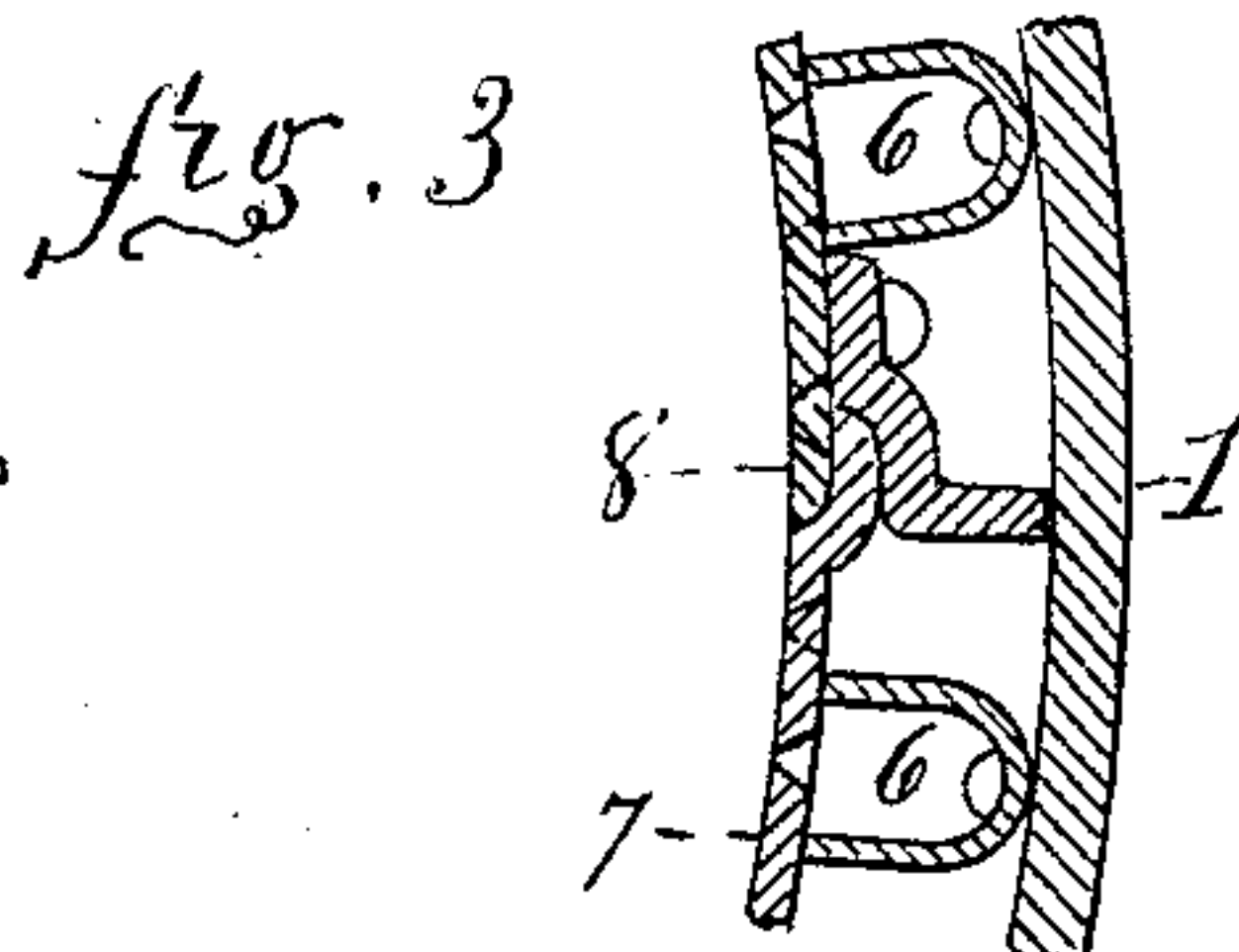
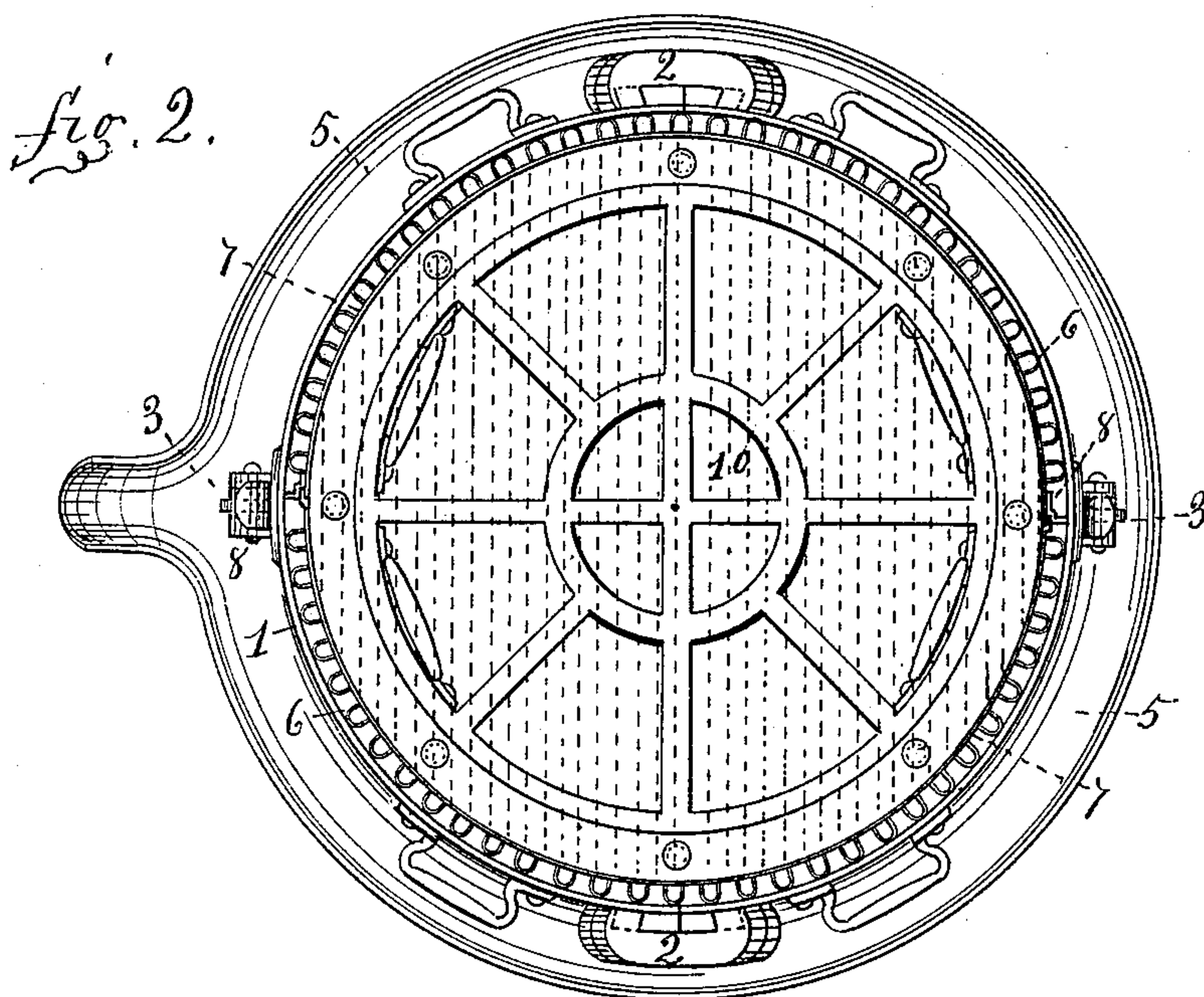
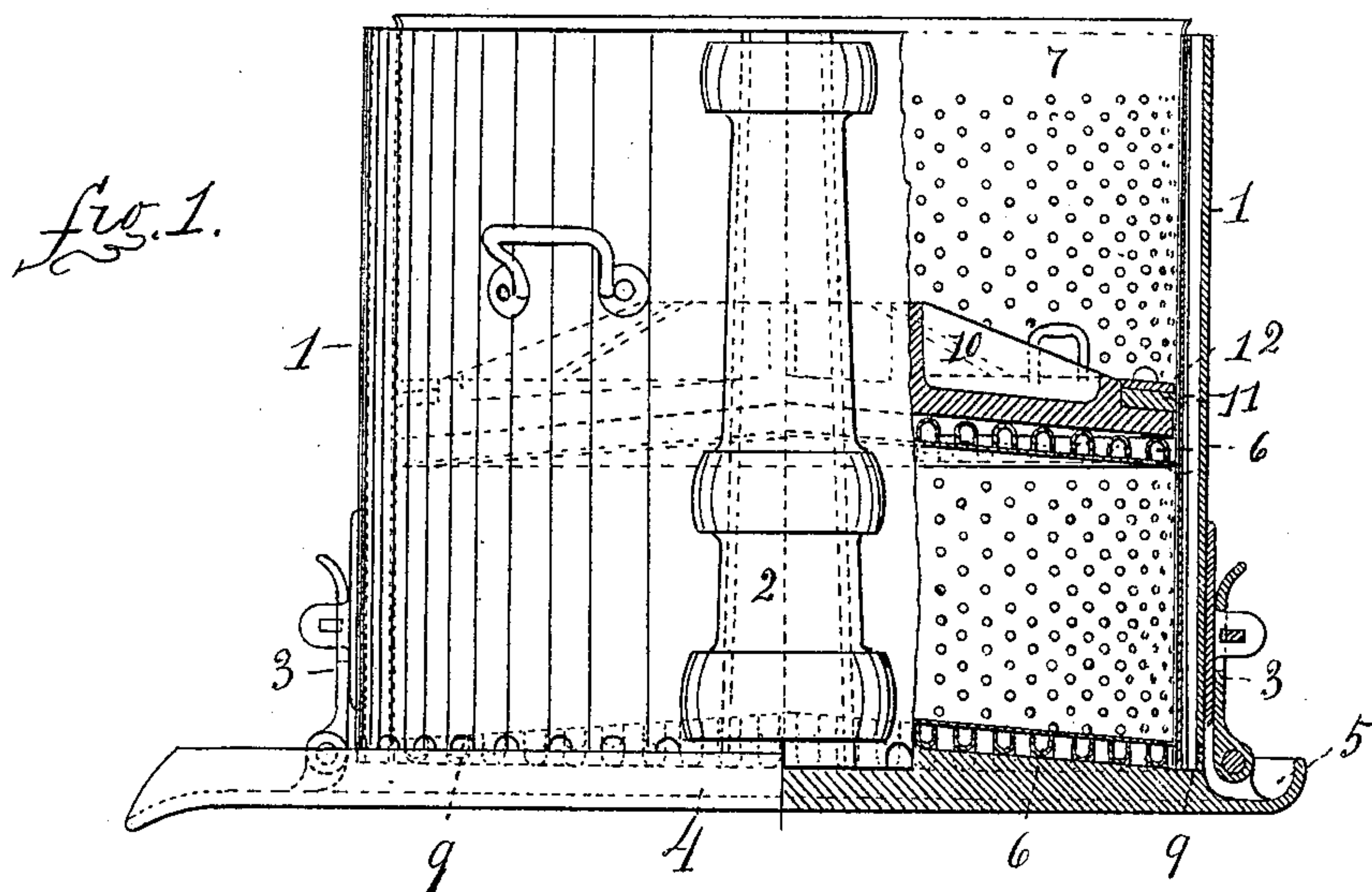


(No Model.)

F. W. CROSS.
CURB FOR PRESSES.

No. 370,247.

Patented Sept. 20, 1887.



WITNESSES.
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UNITED STATES PATENT OFFICE.

FRANK W. CROSS, OF WASHINGTON, DISTRICT OF COLUMBIA.

CURB FOR PRESSES.

SPECIFICATION forming part of Letters Patent No. 370,247, dated September 20, 1887.

Application filed February 17, 1887. Serial No. 227,902. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. CROSS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Curbs for Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in the construction of curbs or hoops to be used in presses for the extraction of oils or other liquids.

The objects of my invention are, first, lightness, strength, and portability; second, a greater amount of delivery-space for the discharge of the oils or liquids without adding to the weight or size of the curb or hoop.

I make my curb cylindrical in form and of plate-steel, bent to conform to the circle of the diameter required, and in two segments. Upon the edges of the segments are riveted dovetail strips, square on the outer edges to abut squarely together and increasing in width from the top to the bottom, forming a wedge shape. Over these dovetail strips are placed strong clamps extending from top to bottom of the curb, thus firmly securing the segments together, forming a complete curb flush or smooth on the inside at the joints.

Upon the inside of this curb I arrange U-shaped strips vertically, so that the spaces between the strips are equal, formed of band-iron rolled into shape, with the open sides projecting inward toward the center and secured by rivets or other equivalent means. Inside of these is placed a perforated sheet-steel hoop made to fit closely on all sides and in two segments jointed in such a manner that the seams will be smooth on the inside, one edge being crimped or bent in an offset corresponding with the thickness of the sheet and lapping on the outside, with the shoulder abutting against the edge of the other sheet. To hold the sheets in position, strips of steel crimped to conform to the thickness of the circular plates are riveted onto the plain edges, forming a groove for the edge of the other sheet. By this arrangement an expanding joint, smooth on the inside, is formed, allowing the perforated sheets to press against the U-shaped

strips on the inside of the outer hoop, which takes all of the strain when the curb is in use.

The base or bed of the curb is made slightly conical upward and provided with U-shaped strips secured to its surface, which are covered with a circular piece of perforated sheet-steel cut to conform to the diameter of the inside of the curb, thus allowing the curb with its lining to shut down over the edges onto the base or bed. The lower edges of the curb and lining are scalloped to allow free passage of the oil or liquid into the surrounding trough. The under side of the follower is made conical, to conform to the shape of the bed, and provided with U-shaped strips and a perforated steel plate, the same as the bed or base. In the outer edge of the follower and on the upper side I arrange a leather ring, which is secured in a rabbet by a metal ring and screws, which fills the inside of the curb to prevent the passage of the material from the follower when under pressure.

The perforations of the linings are made conical, flaring outward from the interior to prevent wedging and closing and afford a free delivery. By this arrangement of parts I obtain a perfectly free delivery and the largest amount of clearance-space with a strong and light curb. To prevent the curb from lifting from the bed when under pressure, I hinge loops to the bed which turn up over eye-lugs secured to the sides of the curb and held in position by a pin or key, but which can be quickly detached and turned down out of the way when the curb is to be removed from the bed. Handles are provided for the curb and follower for convenience of handling.

In order that my invention may be the better understood, reference is had to the accompanying drawings, in which similar figures indicate corresponding parts in all of the views.

Figure 1 represents an elevation, partly in section, of a curb made in accordance with my invention, showing the general construction and arrangement of the parts. Fig. 2 represents a plan of the curb, and Fig. 3 an enlarged detail view of the expanding joint of the perforated lining, and also the arrangement of the U-shaped strips forming a discharging-space from the interior.

In the drawings, 1 indicates the segmental curb; 2, the dovetail clamp-joints; 3, the loop-

straps which secure the curb to the bed; 4, the base or bed, having a trough, 5, surrounding the curb to receive and convey away the oil or liquid.

5 6 indicates the U-shaped strips secured to the inside surface of curb 1, which forms the clearance for receiving and conveying away the oil or liquid from the interior; 7, the perforated sheet-steel lining, and 8 the expanding supporting-joint in the segmental perforated lining; 9, the scalloped openings in the bottom of the curb.

10 indicates the follower, 11 the leather scraper, and 12 the ring holding the leather scraper in place.

15 I am aware that prior to my invention circular iron curbs and perforated linings with delivery-spaces between the two have been in use, and not new. Therefore those I do not broadly claim; but

What I do claim as new and useful, and what I desire to secure by Letters Patent, is—

1. In a press, substantially as described, a cylindrical curb or hoop composed of two or

more segments having wedge-shaped dovetail strips at their vertical joints and scallops at their base, in combination with clamps 2, for holding them together, said scallops permitting the escape of the oil or other liquids. 25

2. The segmental perforated steel-plate lining having conical holes flaring outwardly, and the expanding supporting-joint 8, substantially as set forth. 30

3. The combination of a cylindrical steel-plate curb or hoop provided with scallops, as described, the dovetail wedge-shaped strips, binding-clamps 2, U-shaped clearance-strips 6, perforated steel-plate lining 7, having expanding joints 8, and the follower 10, provided with scraper 11 and ring 12, substantially as and for the purposes described. 35 40

In testimony whereof I affix my signature in the presence of two witnesses.

FRANK W. CROSS.

Witnesses:

JAMES H. ELLSWORTH,
A. S. YANTIS.