

No. 815,347.

PATENTED MAR. 20, 1906.

W. C. HARTMANN.
BOWL FOR CENTRIFUGAL CREAM SEPARATORS.
APPLICATION FILED SEPT. 27, 1904.

2 SHEETS—SHEET 1.

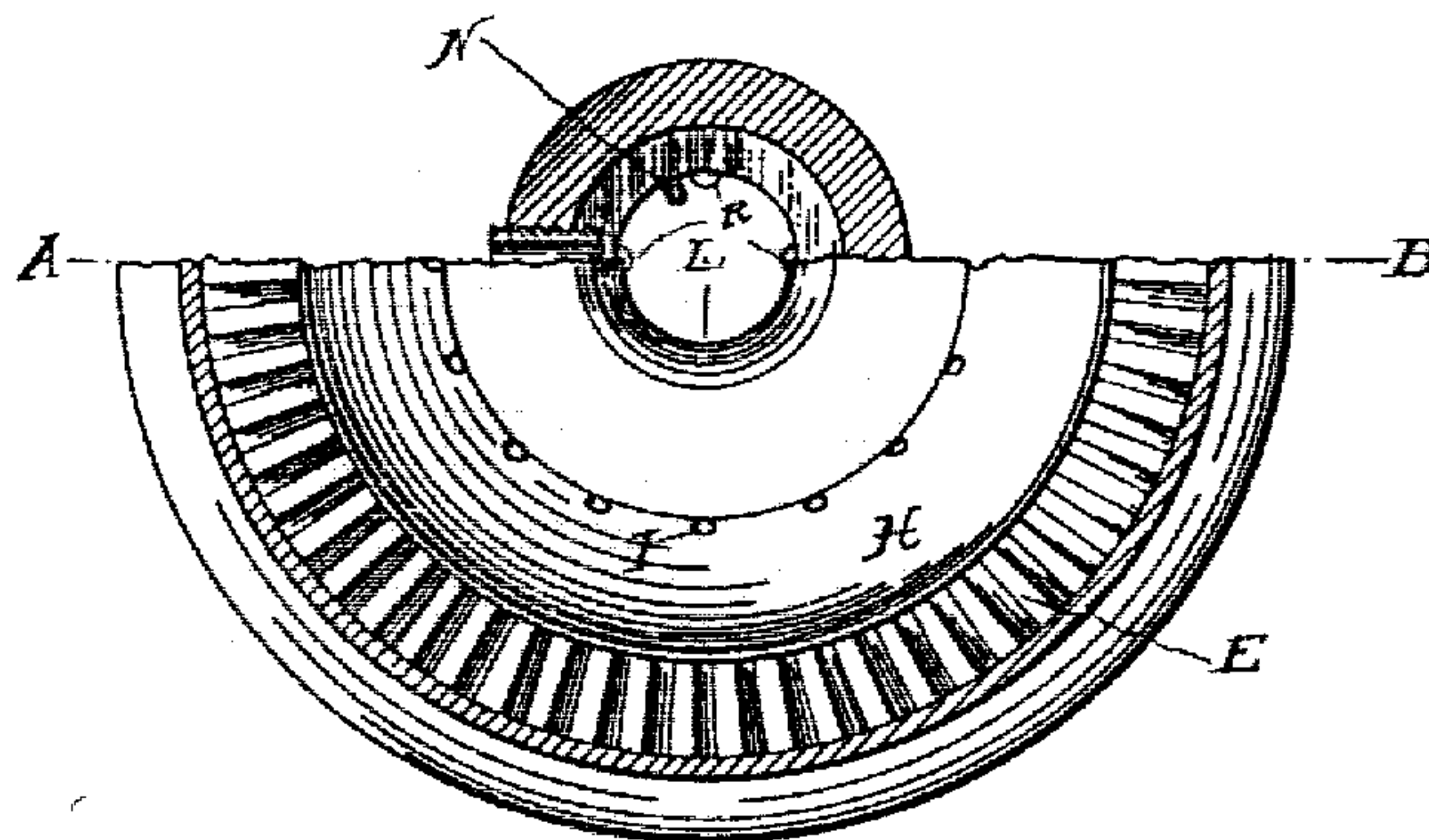


Fig. 2

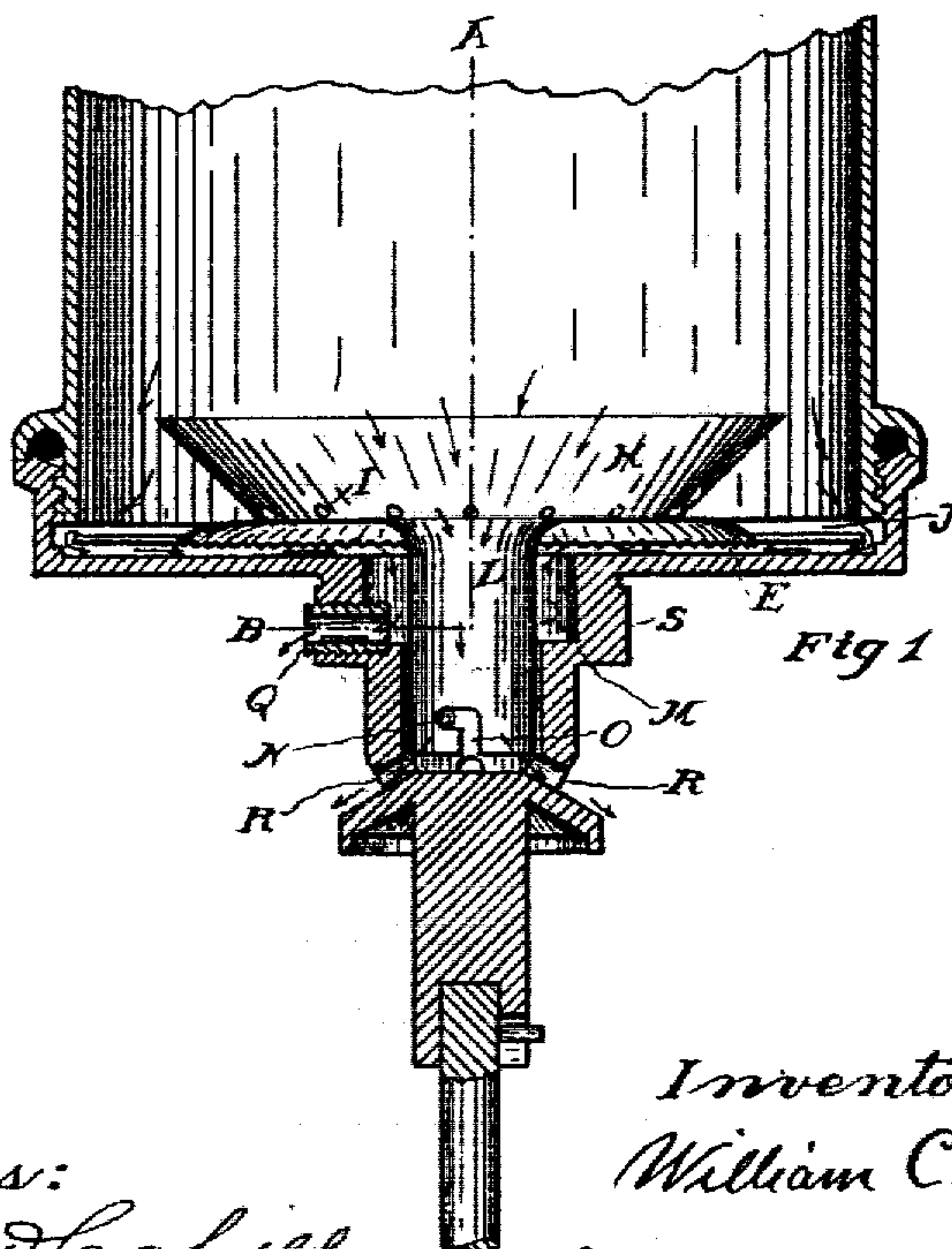


Fig 1

Witnesses:

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Bertha Chase

Inventor

William C. Hartmann

By Attorney

Clark C. Wood

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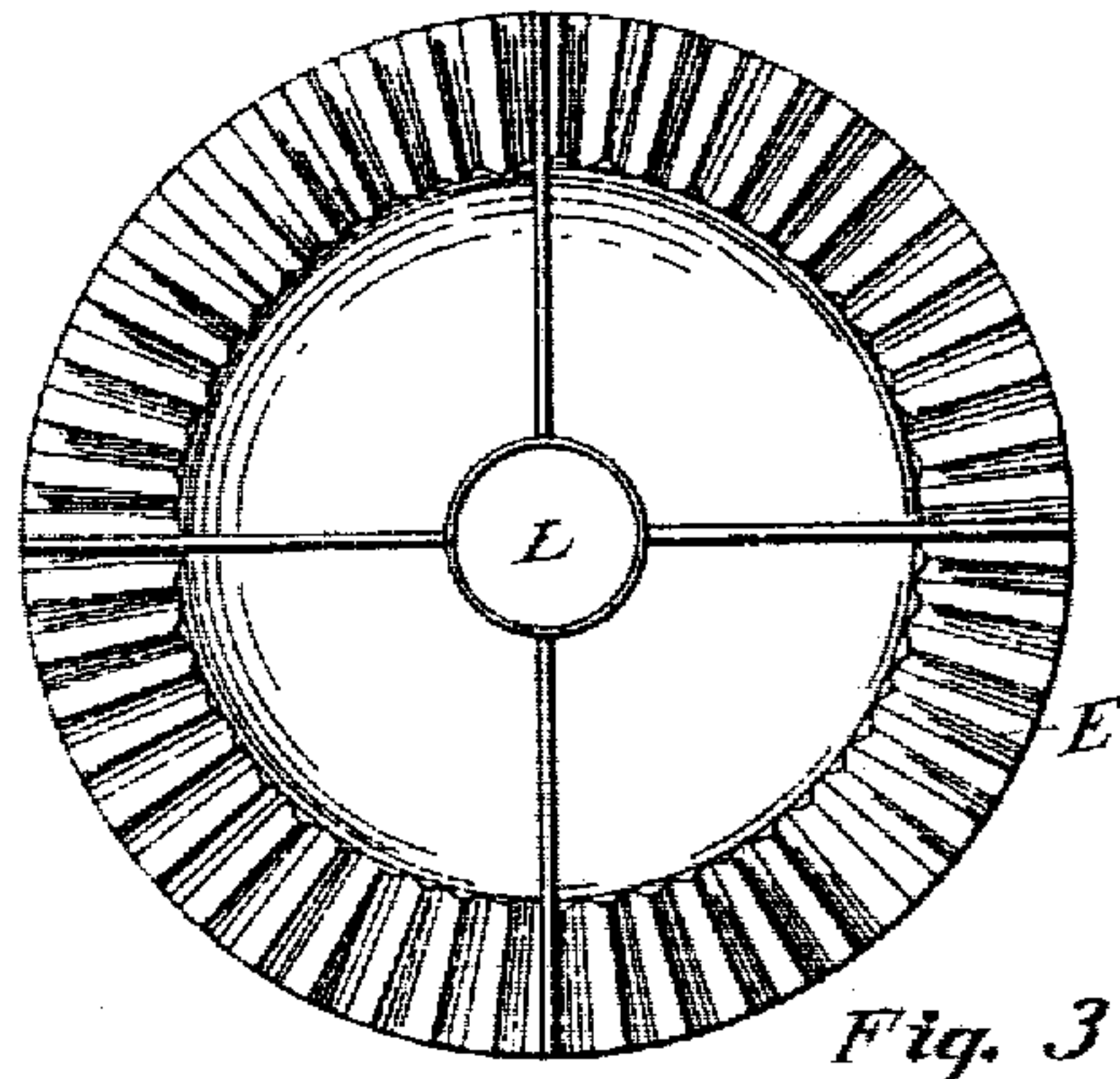


Fig. 3

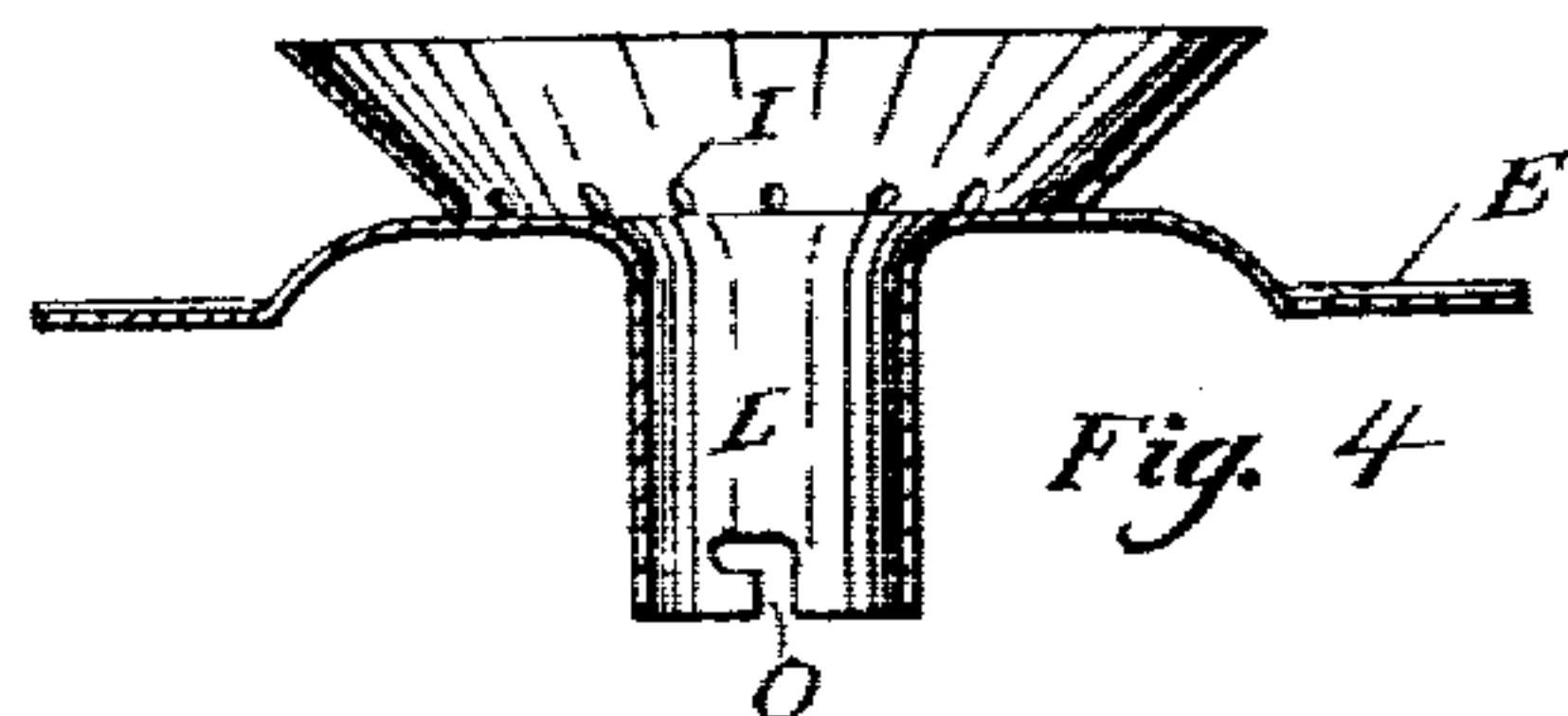


Fig. 4

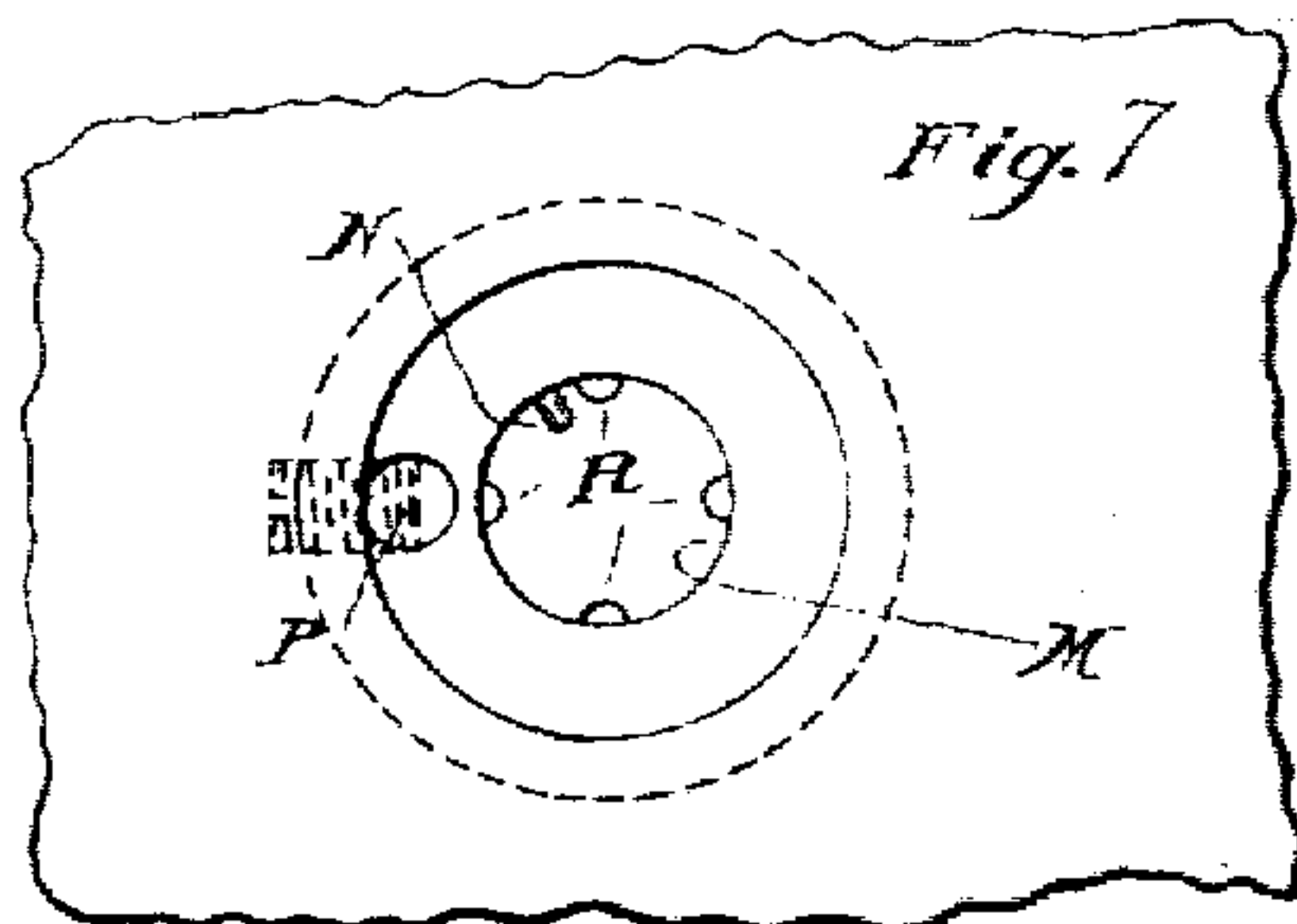


Fig. 7

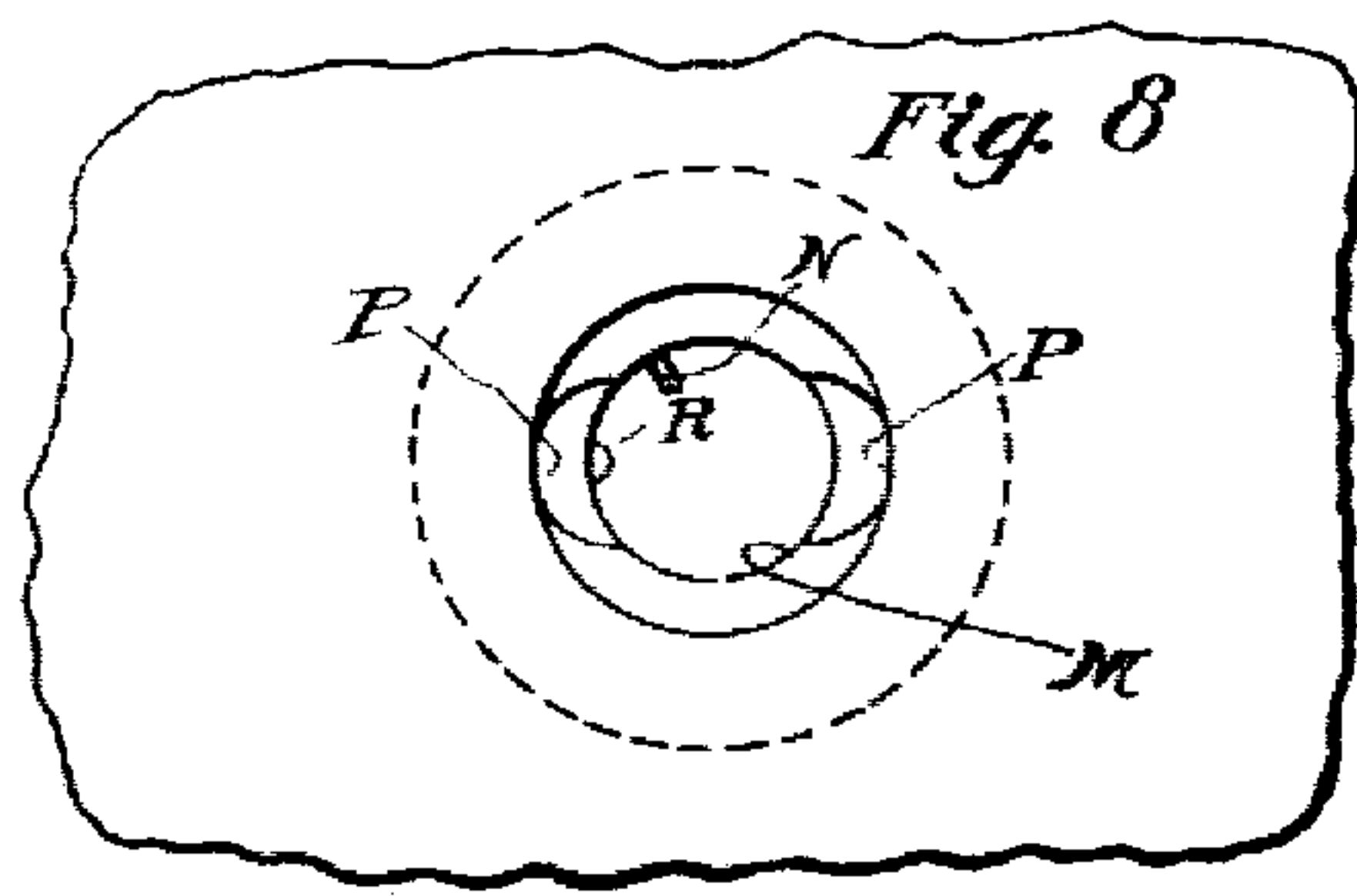


Fig. 8

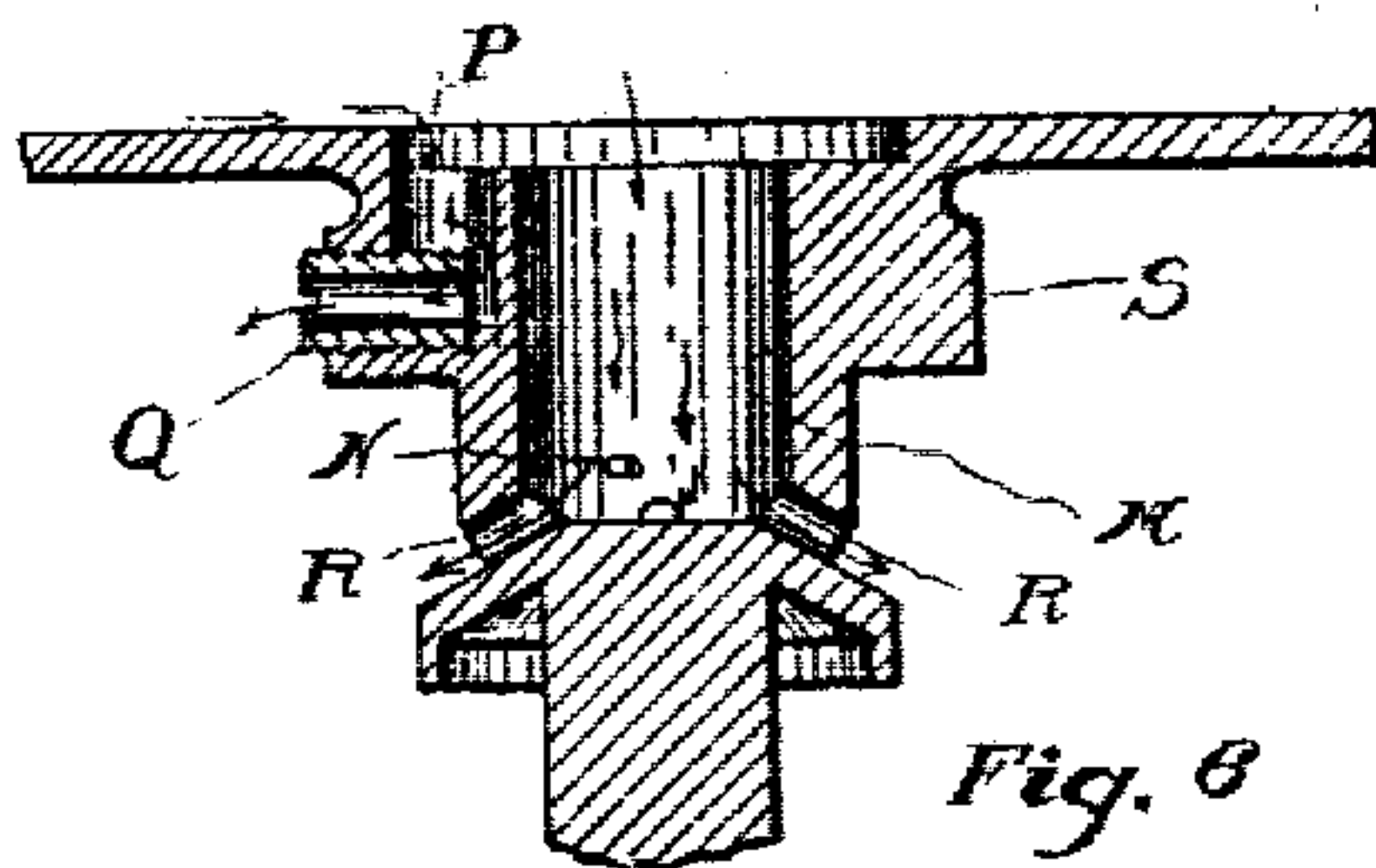


Fig. 6

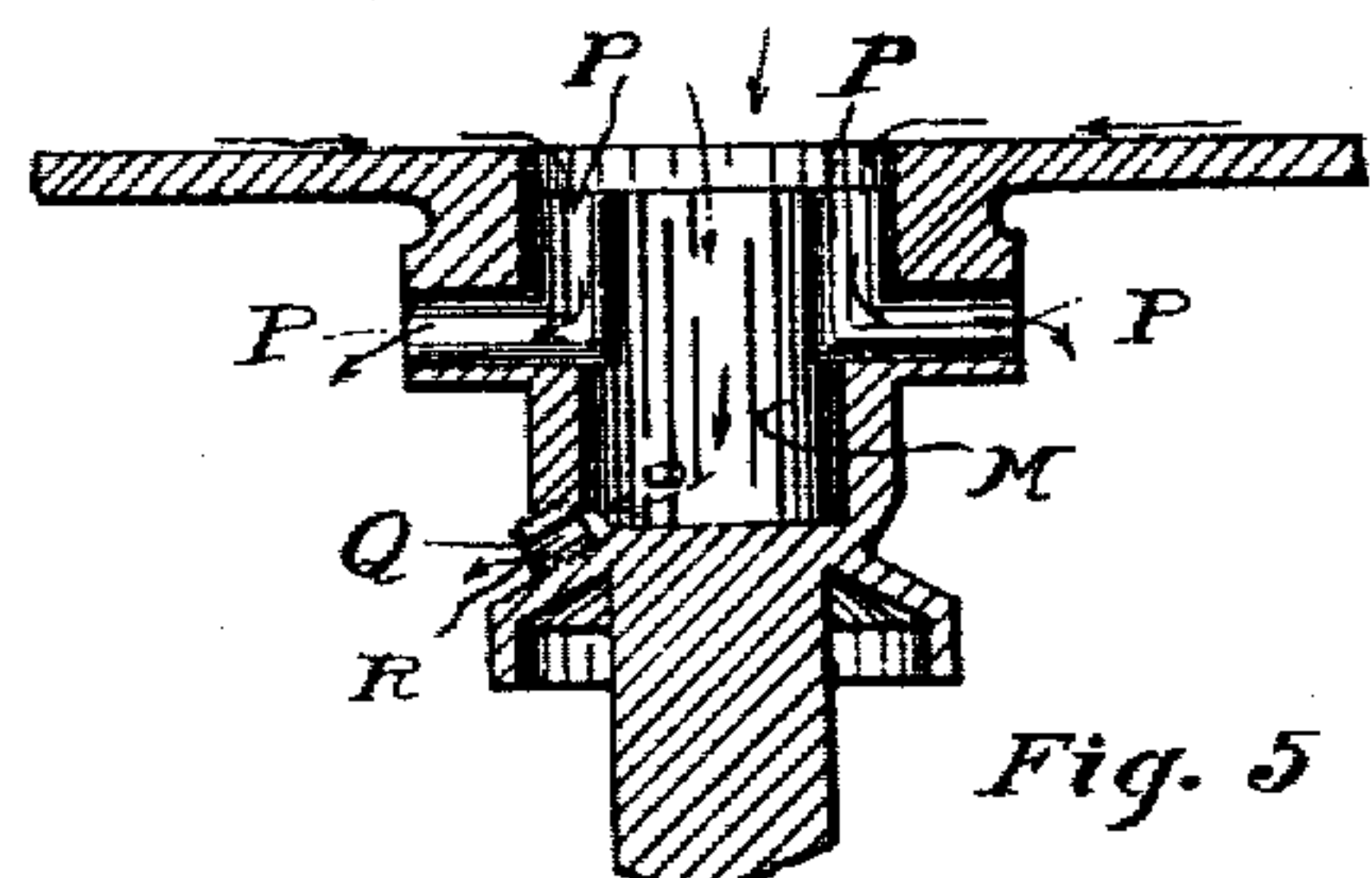


Fig. 5

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UNITED STATES PATENT OFFICE.

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BOWL FOR CENTRIFUGAL CREAM-SEPARATORS.

No. 815,347.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed September 27, 1904. Serial No. 226,240.

To all whom it may concern:

Be it known that I, WILLIAM C. HARTMANN, a citizen of the United States, residing at Lansing, county of Ingham, and State of Michigan, (whose post-office address is Lansing, Michigan,) have invented certain new and useful Improvements in Bowls for Centrifugal Cream-Separators, of which the following is a specification.

My invention relates to separator-bowls of the kind covered by Letters Patent No. 621,306, dated March 14, 1899, to C. L. Kneeland and William C. Hartmann, the said William C. Hartmann being myself, and is an improvement on the device covered by said Letters Patent.

The object of my present improvement is to make a construction that will be more efficient in operation and at the same time more economical in cost of manufacture and more readily adjusted for use.

In the drawings, Figure 1 is a vertical section of the bottom of a separator-bowl with my device in position. Fig. 2 is a view of half of Fig. 1 from above, a portion of the diaphragm H and false bottom E being broken away to show the cream-tube L. Fig. 3 is a plan view of the false bottom E, taken from below to show its modified construction. Fig. 4 is a vertical section of the false bottom E, showing the construction more in detail. Figs. 5, 6, 7, and 8 are detailed views of different parts of the device.

In order to more clearly bring out the modifications made in my present device from the construction employed in the patent above referred to, I have used in the drawings for this application the same letters that were employed in the drawings for the other device for the corresponding parts.

The general construction of the device being fully set forth in the prior patent, it will be sufficient here to explain the modifications of the said construction made in the device covered by the present application.

The diaphragm H and the false bottom E are practically identical in my present device with those employed in the preceding invention; but the screw K and the tubes F and G are dispensed with. An opening is made in the center of the false bottom E, to which is fitted a cream-tube L, which extends downward into a cavity M, formed to receive it in

the bottom B of the bowl. A pin N is firmly secured in the side of the cavity M, preferably near its lower end, which is adapted to engage in a slot O in the cream-tube L for the purpose of holding the false bottom E securely in position. An opening P is bored vertically in the bottom B of the bowl, near to the cavity M, and a tubular milk-screw Q passes through the side of the bowl-bottom and into the opening P. The purpose of this tubular screw will be more fully explained hereinafter. One or more openings R are drilled through the bottom B of the bowl, preferably in a diagonal direction, so as to open into the cavity M and the cream-tube L to permit the escape of cream from the cream-tube L.

The above is the construction at present preferred by me and is shown in detail in Figs. 6 and 7. However, it is not essential that the opening P should be separated from the cavity M, since the required separation between the cream and milk will be equally well made by the wall of the cream-tube L. So if desired, without departing from the spirit of my invention, the opening P may be made as one or more grooves, preferably two, situated opposite each other in the sides of the cavity M, as shown in Fig. 8. In this case the tubular regulating-screw Q is inserted in the diagonal openings R instead of in the opening P.

The operation of my device proceeds the same as in the Letters Patent already referred to until the separation between the cream and milk is fully completed, the cream accumulating in the center of the diaphragm H and filling the cream-tube L and the milk filling the space J and the open space beneath the false bottom E in the same manner as in the preceding patent. The cream passes down the cream-tube L and escapes through the opening R. The amount of milk remaining in the cream is regulated by screwing the tubular screw Q farther out or in, so as to permit more or less milk to escape with the cream, in a manner perfectly well known in the art, the operation being identically the same in the two forms shown in Figs. 7 and 8.

I claim as my invention and desire to secure by Letters Patent—

1. In combination, a rotatable separator-bowl, a bottom removably attached to said

bowl, and having on its lower surface a projection containing a central cavity and two outlets, one communicating with the upper surface of said bottom near the center, the
5 other, with said central cavity, a false bottom extending completely across beneath the chamber in the body of the bowl and provided with a conical diaphragm attached to its upper surface, with a tube passing through
10 said false bottom and fitting the central cavity formed in the bottom of the bowl, substantially as described.

2. In combination, a rotatable separator-bowl, a bottom removably attached to said
15 bowl, and having on its lower surface a projection containing a central cavity and two outlets, one communicating with the upper surface of said bottom near the center, the other with said central cavity, a false bottom
20 extending completely across beneath the chamber in the body of the bowl, and provided with a conical diaphragm attached to its upper surface, and a tube passing through said false bottom and fitting the central cavity
25 formed in the bottom of the bowl, with a

regulating-screw fitted into one of said outlets, substantially as described.

3. In combination, a rotatable separator-bowl, a bottom removably attached to said
30 bowl, and having on its lower surface a projection containing a central cavity and two outlets, one communicating with the upper surface of said bottom near the center, the other with said central cavity, a false bottom
35 extending completely across beneath the chamber in the body of the bowl and provided with a conical diaphragm attached to its upper surface, a tube passing through said false bottom and fitting the central cavity
40 formed in the bottom of the bowl, and means for securing said false bottom in position in the bowl, with a regulating-screw fitted into one of said outlets, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of
45 two subscribing witnesses.

WILLIAM C. HARTMANN.

Witnesses:

H. L. LAWRENCE,
C. C. WOOD.