

(No Model.)

2 Sheets—Sheet 1.

J. E. WELLING.

FLOUR SIFTER.

No. 284,581.

Patented Sept. 4, 1883.

Fig 1

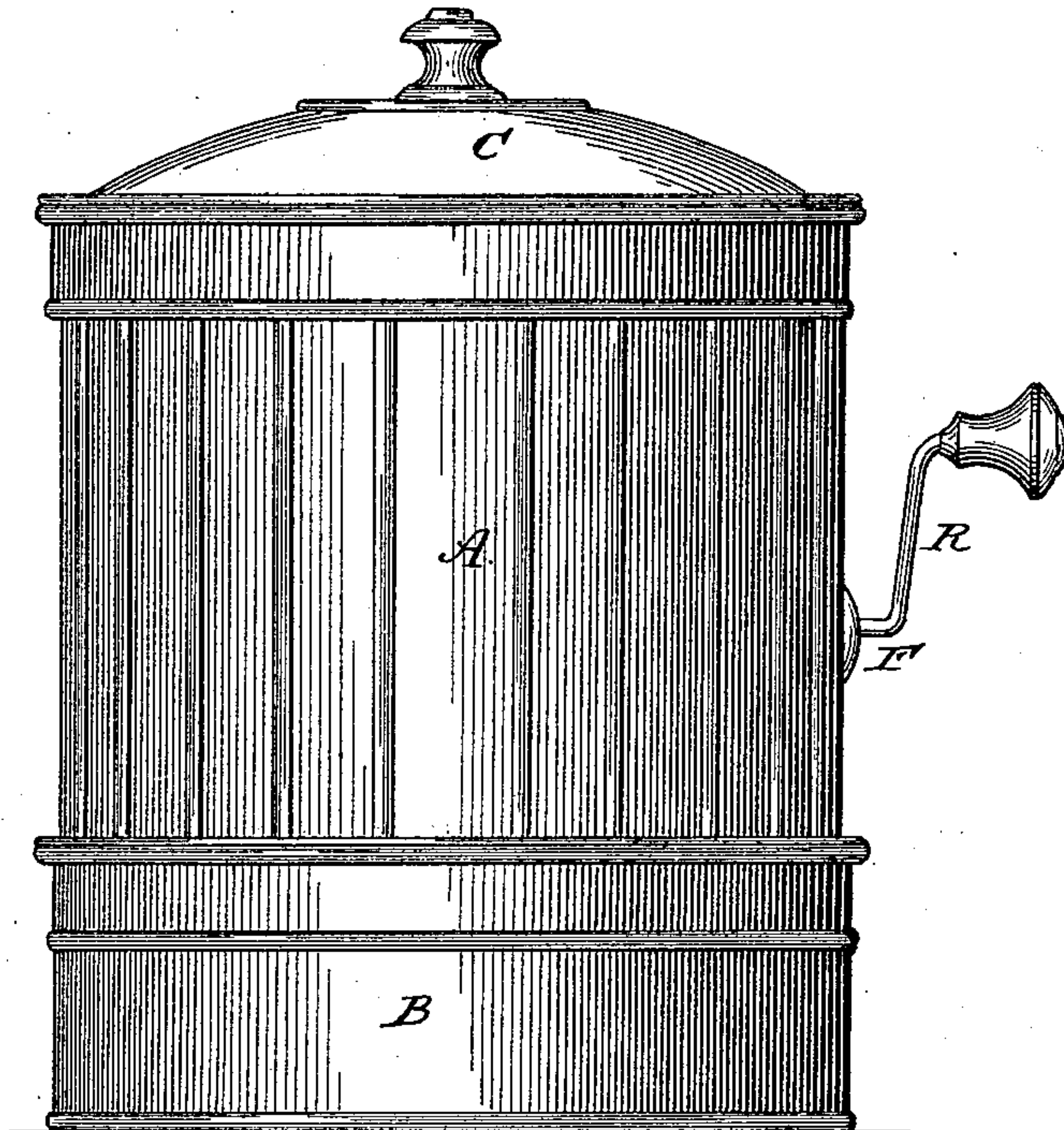
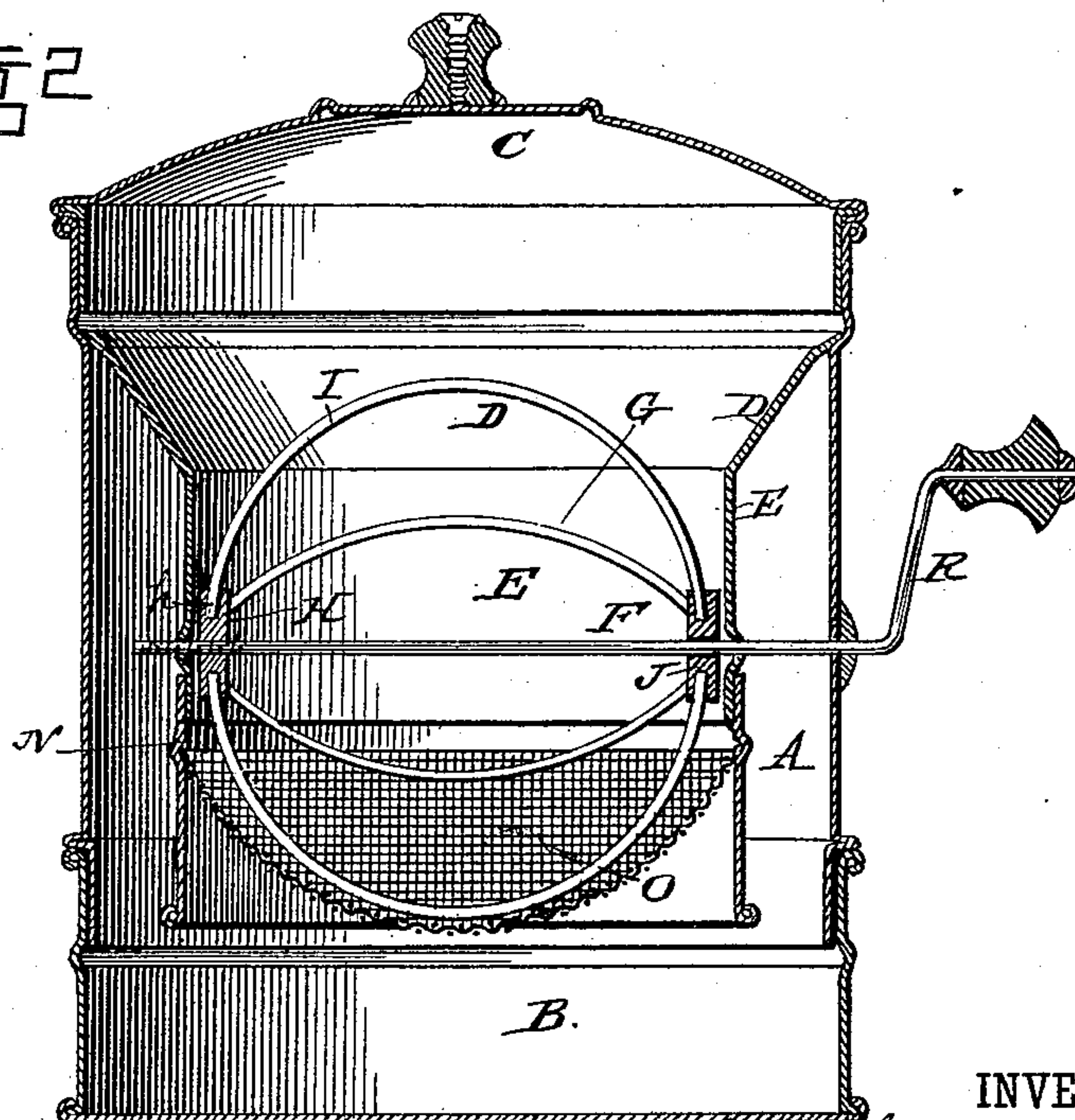


Fig 2



WITNESSES:

Ad. S. Dietrich
Wm. Lecher

INVENTOR.

John Edward Welling
By *Louis Bagger & Co.*
ATTORNEYS.

(No Model.)

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Fig 3

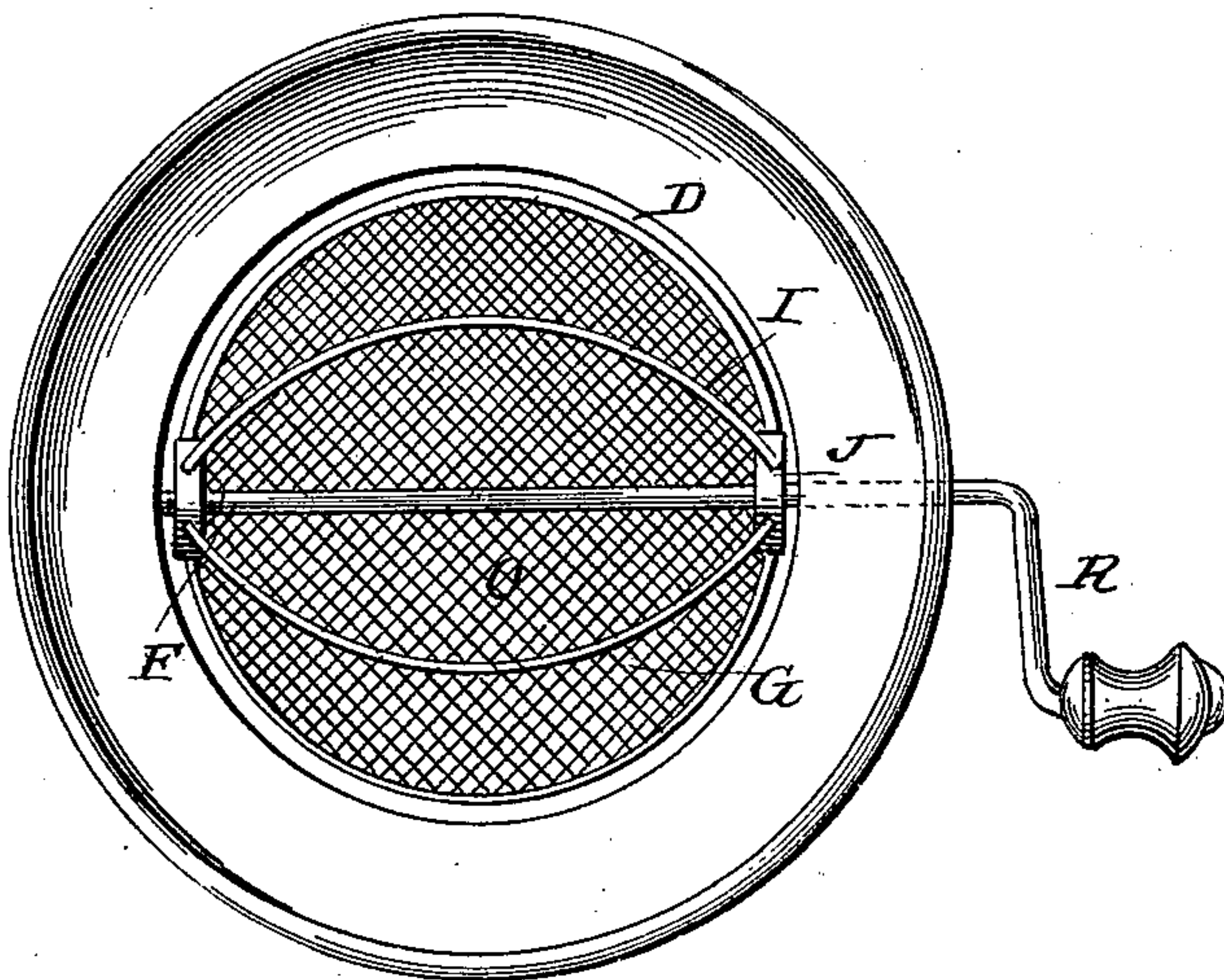


Fig 4

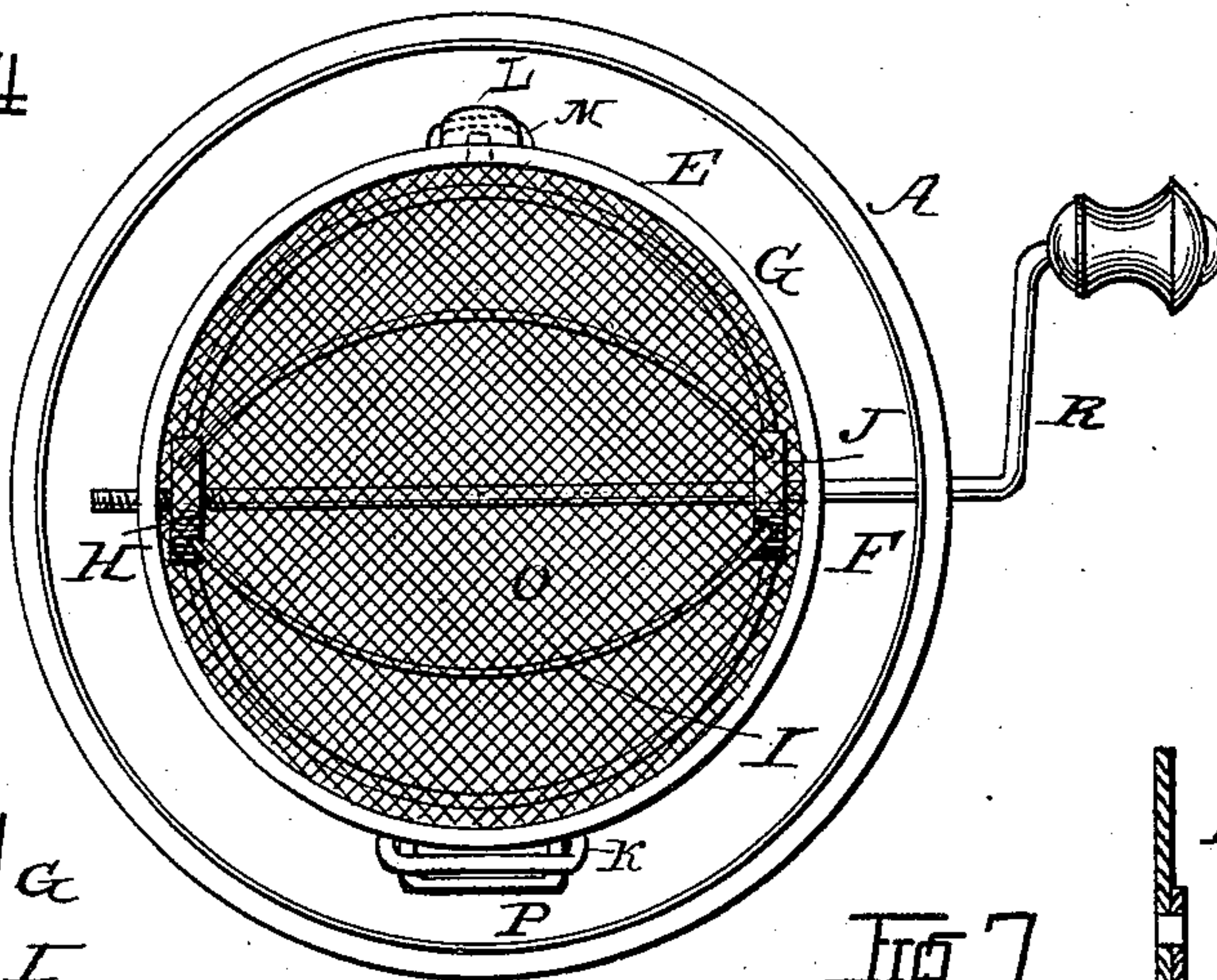


Fig 5

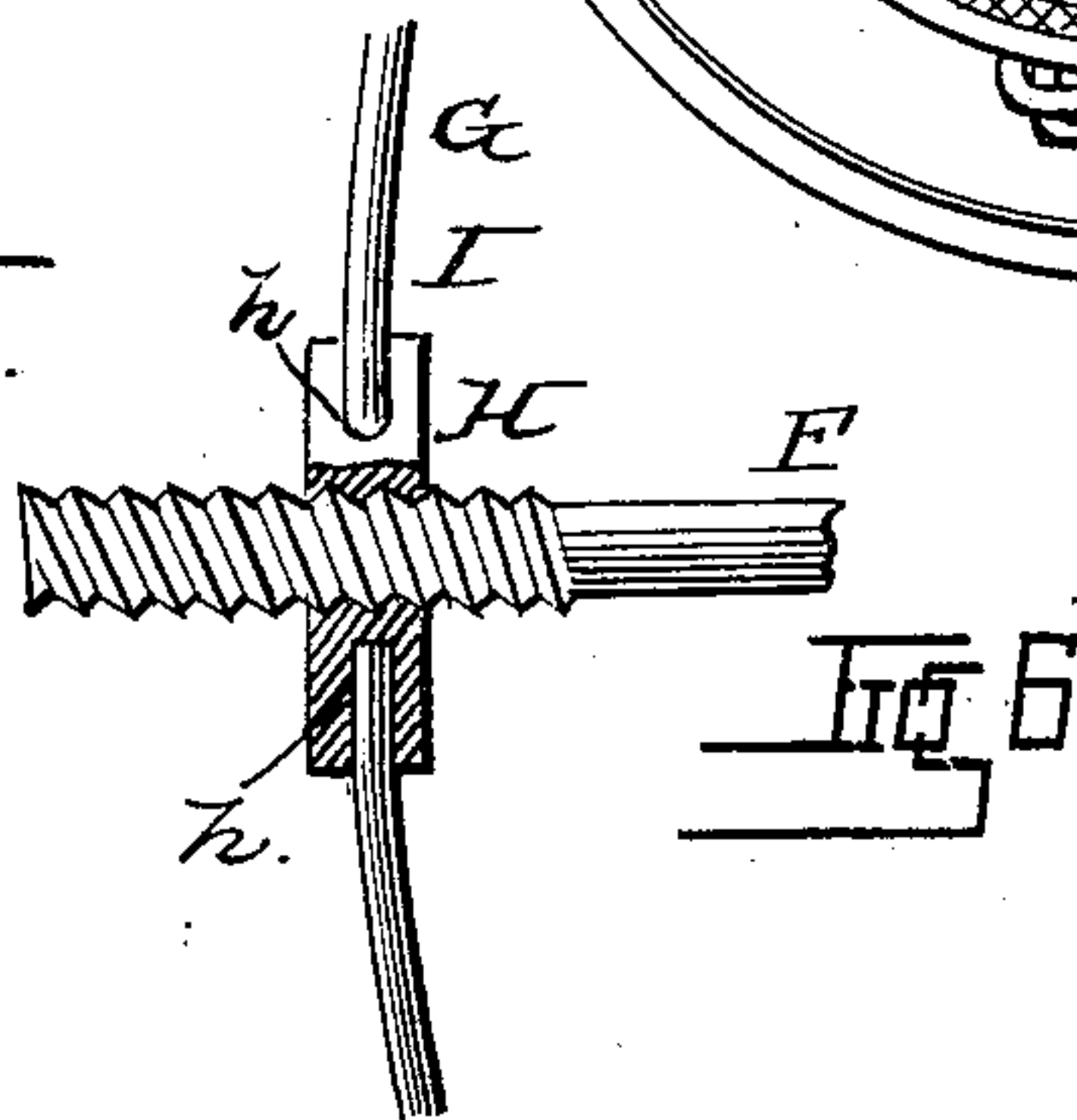


Fig 6

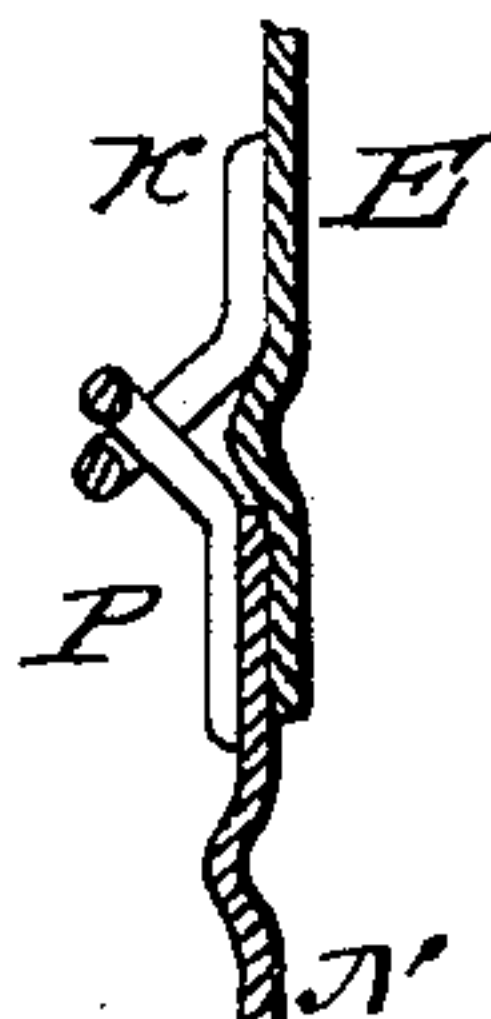
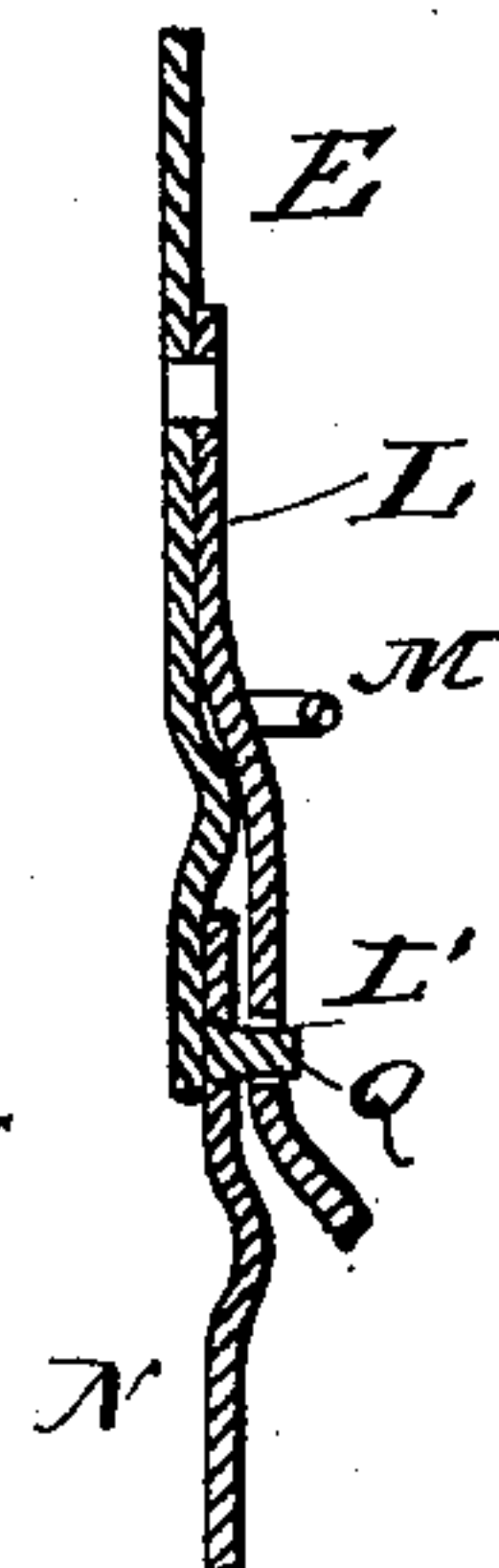


Fig 7



WITNESSES:

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INVENTOR.

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN E. WELLING, OF GEORGETOWN, KENTUCKY, ASSIGNOR OF ONE-HALF TO ALBERT DEGARIS, OF SAME PLACE.

FLOUR-SIFTER.

SPECIFICATION forming part of Letters Patent No. 284,581, dated September 4, 1883.

Application filed June 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. WELLING, of Georgetown, in the county of Scott and State of Kentucky, have invented certain new and useful Improvements in Flour-Sifters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of my improved flour-sifter. Fig. 2 is a vertical section of the same. Fig. 3 is a top view with the cover removed. Fig. 4 is a bottom view with the flour-receptacle removed; and Figs. 5, 6, and 7 are perspective detail views of the beater and the fastenings for the sieve.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of flour-sifters for household purposes in which the sieve is a part of a sphere and a set of rotary curved beaters are revolved, sliding over the concave side of the sieve; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a cylindrical outer casing, the central portion of the sides of which are corrugated for the purpose of strengthening the same, while the upper and lower ends of the sides are smooth, the lower end fitting into the cylindrical flour-receptacle B, and the upper end receiving the downwardly-turned flange of the circular lid or cover C. A funnel-shaped flange, D, extends from the upper end of the inside of the corrugated portion, and is fastened to the same and to the upper end of a cylindrical casing, E, of a smaller diameter than the outer casing, the two casings forming an annular space between them. The crank-shaft F of the rotary beater G is journaled transversely in the lower end of the inner casing, and the inner end of the said crank-shaft is screw-threaded, and fits into the female threaded hub H. Into smooth holes *h* in the periphery of hub H the ends of the curved beater-arms I are inserted, while their other

ends are inserted in the same manner in the other hub, J, the central bore of which is smooth, allowing the crank-shaft to be inserted through it and screwed into the threaded perforation of the hub H, passing into the bearing in the side of the inner casing and turning in the same, by which construction it is possible to remove the beater and insert new beater-arms in case of the old arms becoming worn out. The lower end of the inner casing is provided upon one side with an outwardly-projecting loop-catch, K, and upon the other side, diametrically opposite to the catch, with a flat spring-catch, L, fastened at its upper end to the side of the casing, and having a perforation, L', near its lower outwardly-turned end, the lower free portion of which catch is guided by a guide-loop, M, projecting from the side of the casing. A hoop, N, inside which the sieve O is fastened, fits over the lower end of the casing, and is provided at its upper rim with an outwardly-curved loop-catch, P, which is adapted to catch into the catch K, and a laterally-projecting lug, Q, is fastened upon the other side of the hoop, diametrically opposite to the loop-catch, and is engaged by the perforation in the spring-catch when the hoop and the sieve are fitted over the end of the casing. The outer end of the crank-shaft passes out through an aperture in the side of the outer casing, and the crank R, formed upon the outer end of the same, serves to turn the beater, stirring and scraping the flour as it is sifted through the sieve and falls into the flour-receptacle, the flour being fed into the sifter, at the upper end, into the funnel-shaped top of the inner casing, and the space between the inner and outer casing will prevent any of the flour sifted passing out at the apertures for the crank-shaft, the outer casing retaining it inside.

It will be seen that by the construction of the beater and the sieve new beater-arms may be inserted when the old ones are worn out, and that the sieve may be removed and cleaned, or replaced with a new sieve when worn out or otherwise rendered useless.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of an outer casing, having a corrugated central portion and an aper-

ture for the insertion of a beater-shaft, with an inner casing formed with a funnel-shaped flange at its upper end, fastened to the upper portion of the outer casing, a beater journaled in its lower portion, and a sieve-hoop and sieve, as and for the purpose shown and set forth.

2. The combination of an outer casing, a rotary beater, an inner casing formed with bearings for the rotary beater, and provided with an outwardly-projecting loop-catch near its lower end, and a diametrically-opposite spring-catch fastened at its upper end, said spring-catch having a perforation near its lower outwardly-bent end, said casing also having a guide-catch, as described, a sieve, and an annular hoop fitting over the lower end of the inner casing, and provided with an outwardly-curved loop-catch and a diametrically-opposite laterally-projecting lug upon its upper edge, as and for the purpose shown and set forth.

3. A flour-sifter consisting of an outer cor-

rugated casing, a flanged cover, a flour-receptacle, an inner casing having a funnel-shaped flange at its upper end, an outwardly-projecting loop-catch and a spring-catch upon its lower end, a sieve, an annular hoop, provided with an outwardly-curved loop-catch and a laterally-projecting lug, both of the latter fastened to the upper portion of the annular hoop of the sieve, a crank-shaft having its inner end screw-threaded, and a beater having a female-threaded hub, a smooth hub, and curved beater-arms inserted at their ends in holes in the periphery of the hubs, all constructed to operate as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN EDWARD WELLING.

Witnesses:

T. HAWKINS GODEY,
GEO. W. FITZ GERALD.