

(No Model.)

J. CORNELL.
Paper Pulp Washer.

No. 235,213.

Patented Dec. 7, 1880.

Fig: 1.

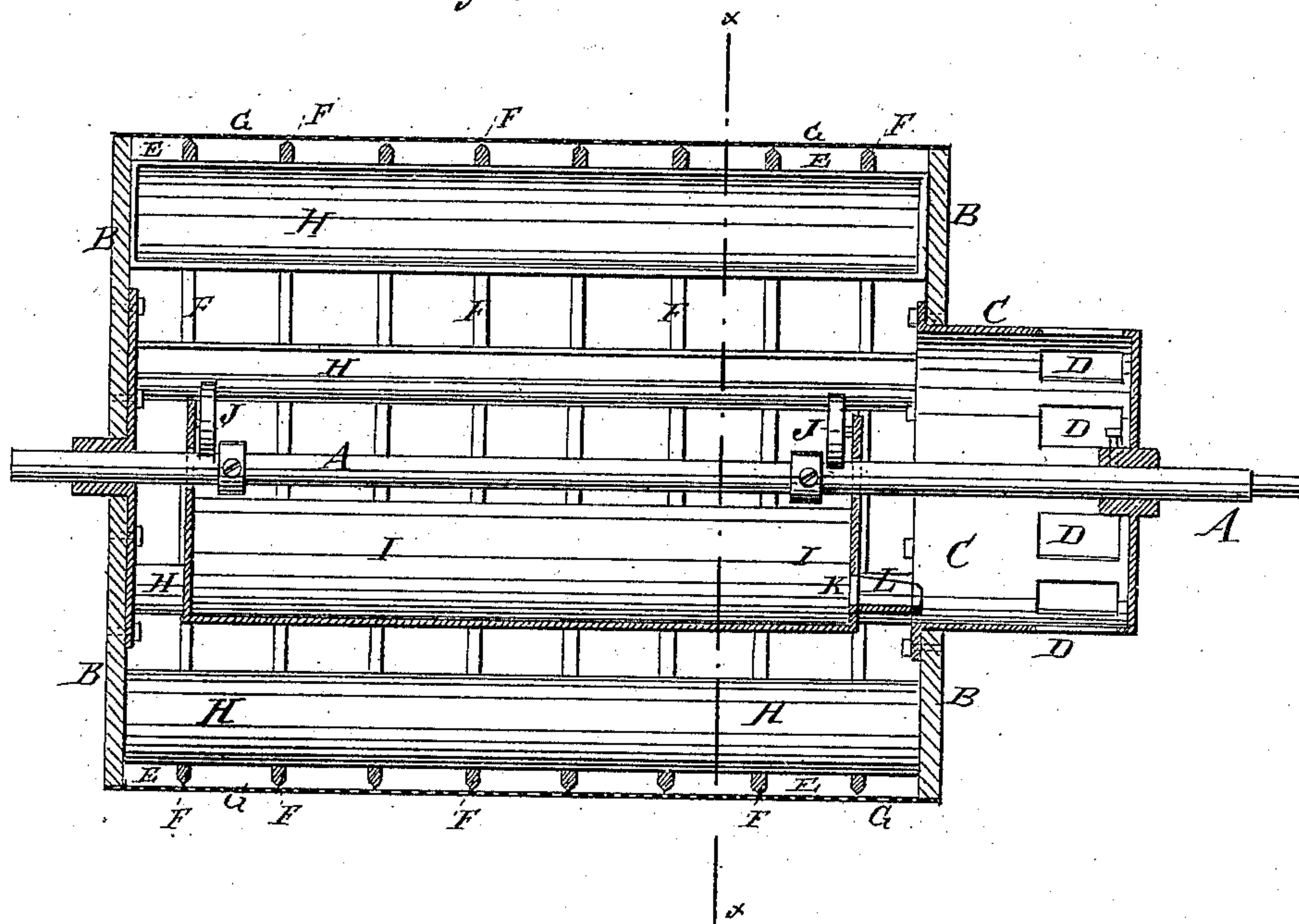


Fig: 2.

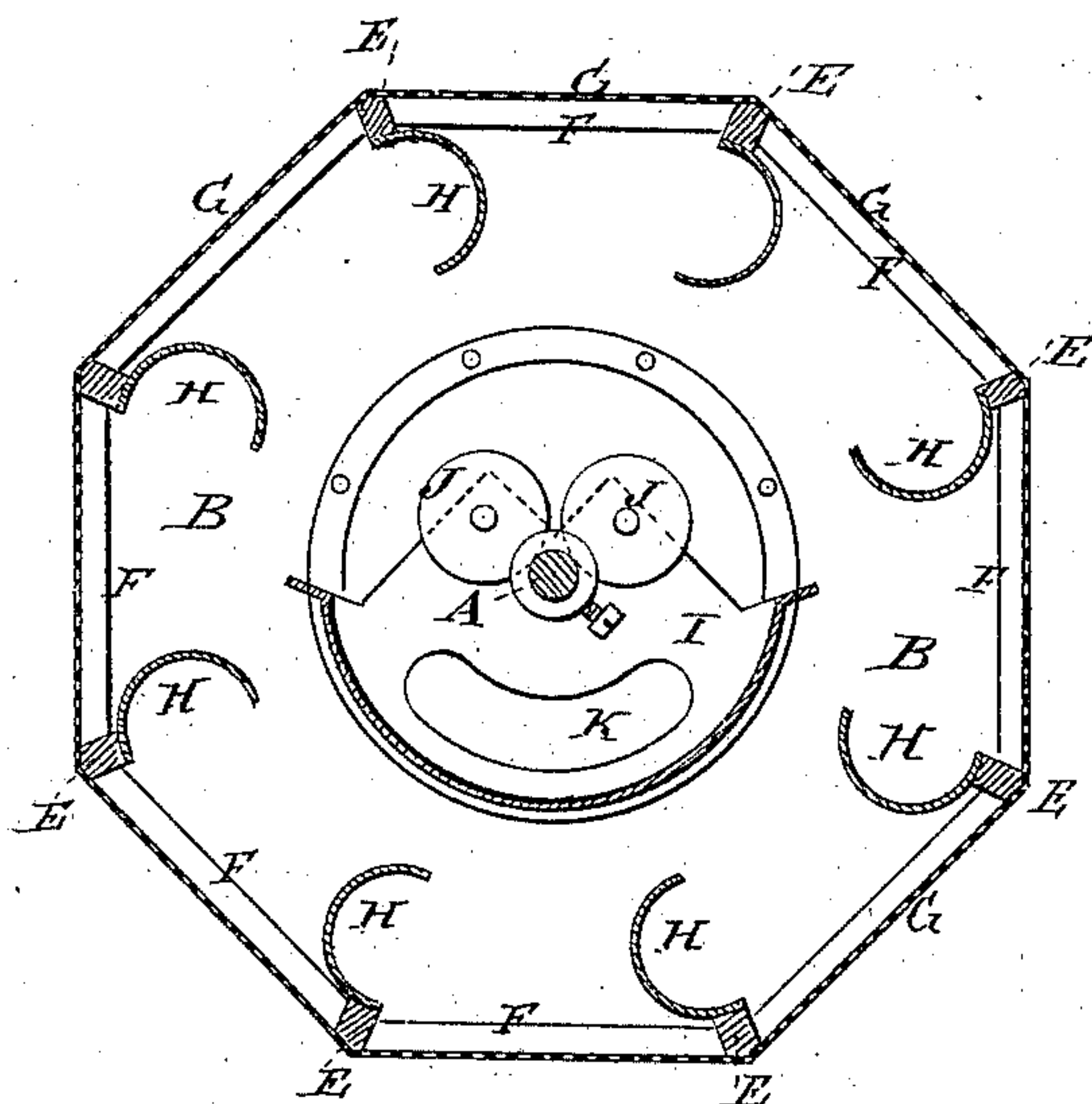
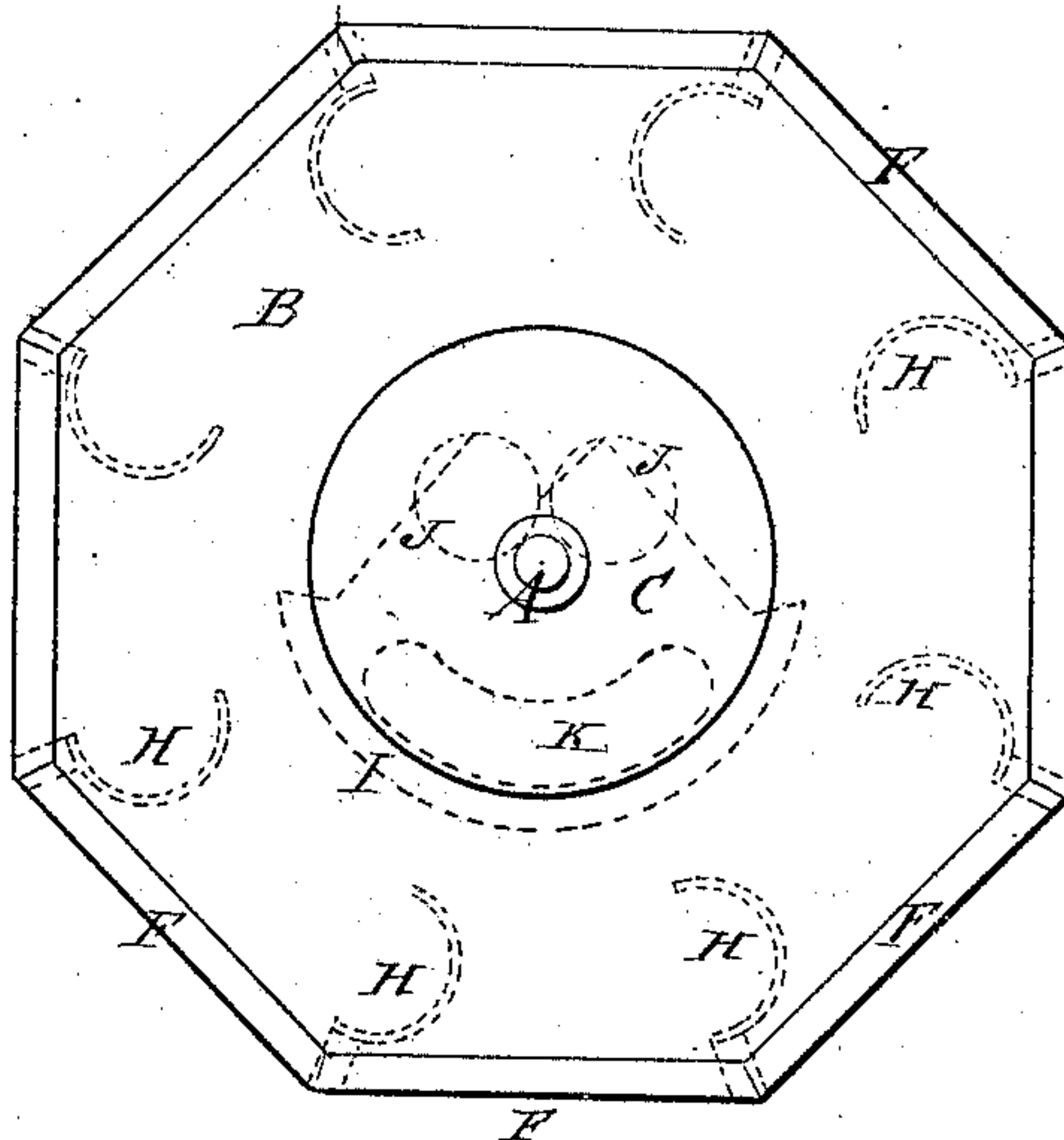


Fig: 3.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

JONATHAN CORNELL, OF SANDY HILL, NEW YORK.

PAPER-PULP WASHER.

SPECIFICATION forming part of Letters Patent No. 235,213, dated December 7, 1880.

Application filed September 7, 1880. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN CORNELL, of Sandy Hill, in the county of Washington and State of New York, have invented a new and useful Improvement in Paper-Pulp Washers, of which the following is a specification.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a sectional end elevation. Fig. 3 is an end elevation.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish paper-pulp washers or strainers so constructed as to wash the pulp faster than strainers constructed in the ordinary manner, and which will enable the operator to see into the washers and thus ascertain whether they are doing their work properly, and to clean the strainers when necessary by a discharge of water through a hose against the inner surface of the strainers, as will be hereinafter fully described.

A represents a shaft which revolves in bearings in the pulp-machine, and to which the driving mechanism is attached in the ordinary manner.

B are two polygonal heads, one of which is provided at its center with a hub attached to the shaft A. The other head, B, has a large aperture, through the center of which the shaft A passes, and into which is fitted the inner end of the smaller cylinder, C. The outer end of the cylinder C is closed, and is provided with a hub attached to the shaft A.

In the outer part of the shell of the cylinder C are formed openings D, through which the dirty water can escape freely, and through which the interior of the washer can be seen, so as to know whether the said washer is doing its work properly. The apertures D also allow a hose to be introduced through them to discharge a stream of water against the inner surface of the washer to clean it.

To the peripheries of the heads B are attached longitudinal bars E, connected by cross-bars F, to which bars E F is attached the wire-gauze G. To the heads B are at-

tached the ends of a number of semi-cylindrical dippers, H.

I is a semi-cylindrical trough, the ends of which are perforated or recessed to receive the shaft A, and to them are pivoted small pulleys or friction-wheels J, which rest and roll upon the shaft A, so that the trough I will always hang beneath the shaft A, and will not be affected by the revolution of the said shaft.

In the end of the trough I next the cylinder C is formed an aperture, K, from which an extension, L, of the trough I, or a spout, extends through the opening in the head A into the cylinder C. With this construction as the washer revolves the dippers H take up the dirty water and discharge it into the trough I, from which it flows through the aperture K and spout L into the cylinder C, from which it flows out through the apertures D.

The constant and rapid discharge of the water from the interior of the washing-cylinder causes a rapid inflow of water through the wire-gauze G, so that the washing of the pulp will go on rapidly.

I am aware that a trough has been hung from the shaft by loose sleeves, which create great friction and wear, that is overcome by my suspension-pulleys, that distribute the friction and wear so as to endure a long time, while they are cheap.

I am also aware that rotating scoops to take up the water have been used; but they have extended from center to circumference, thereby being unnecessarily heavy and expensive. My scoops or dippers are equally as efficient at one third the weight and cost.

I am also aware that the dirty water has been discharged at one end of the trough; but this brings the water in contact with the gears, so as rapidly to wear them out, and causes a leaky joint, so as to rot out the floors and timbers. My apertured small cylinder allows the water to drop directly into the waste-pipe.

What I claim is—

1. In a pulp-washer, the small end cylinder, C, opening into the pulp-cylinder B, and pro-

vided with the openings D, for the reception of a hose, the discharge of dirty water, and the inspection of the interior of the pulp-cylinder, as shown and described.

- 5 2. In a pulp-washer, the dippers H, arranged on the inside of the pulp-cylinders, near the periphery, and attached to and between the heads B, as and for the purpose set forth.

3. In a pulp-washer, the arc-trough I K L, pivoted on the shaft A, and suspended there- 10 from by the pulleys J, as and for the purpose specified.

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Witnesses:

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