

H. STUB & T. QVILLER.
PULP STRAINER.
APPLICATION FILED JAN. 8, 1909.

925,667.

Patented June 22, 1909.

Fig.2.

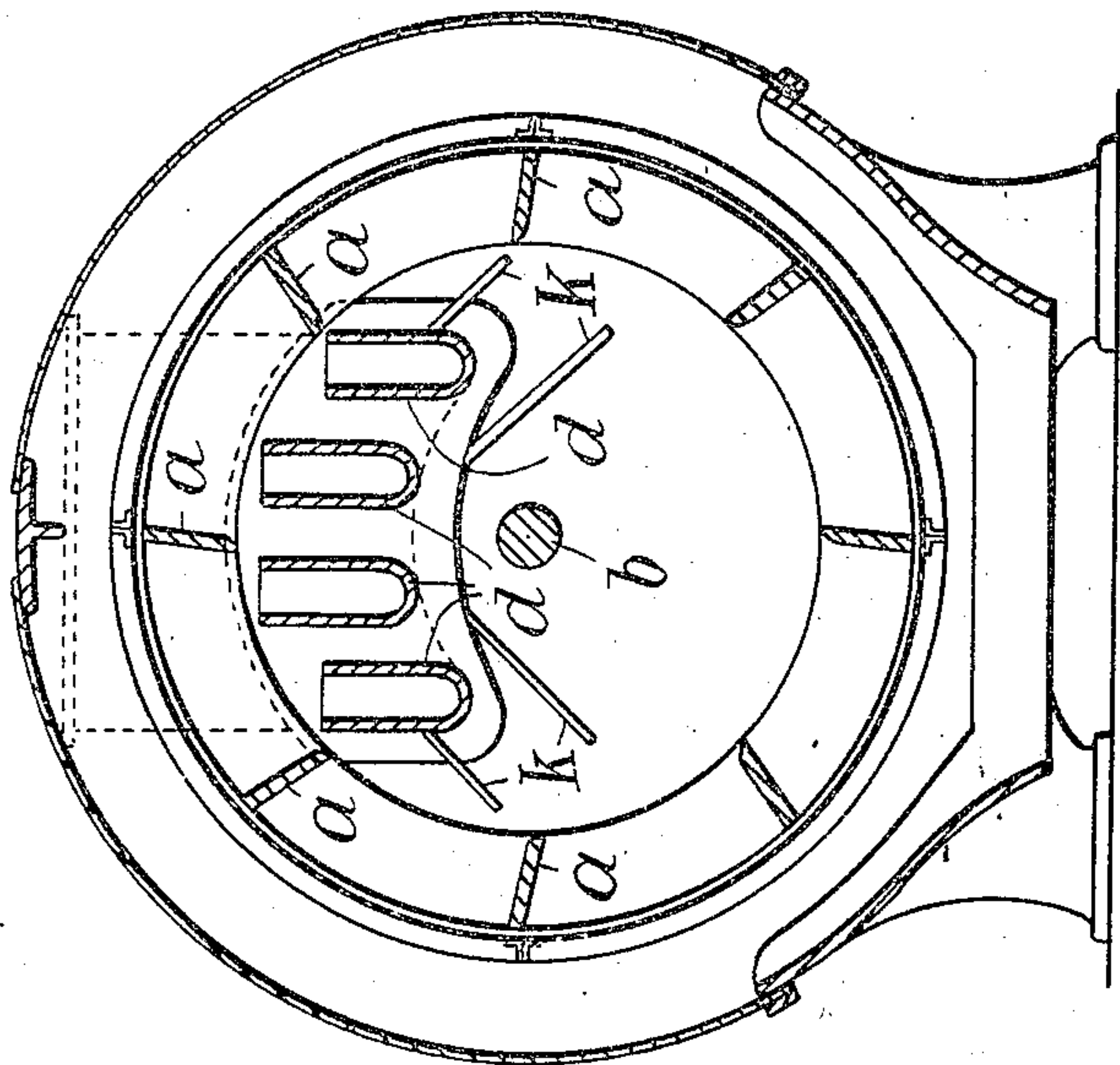


Fig.4.

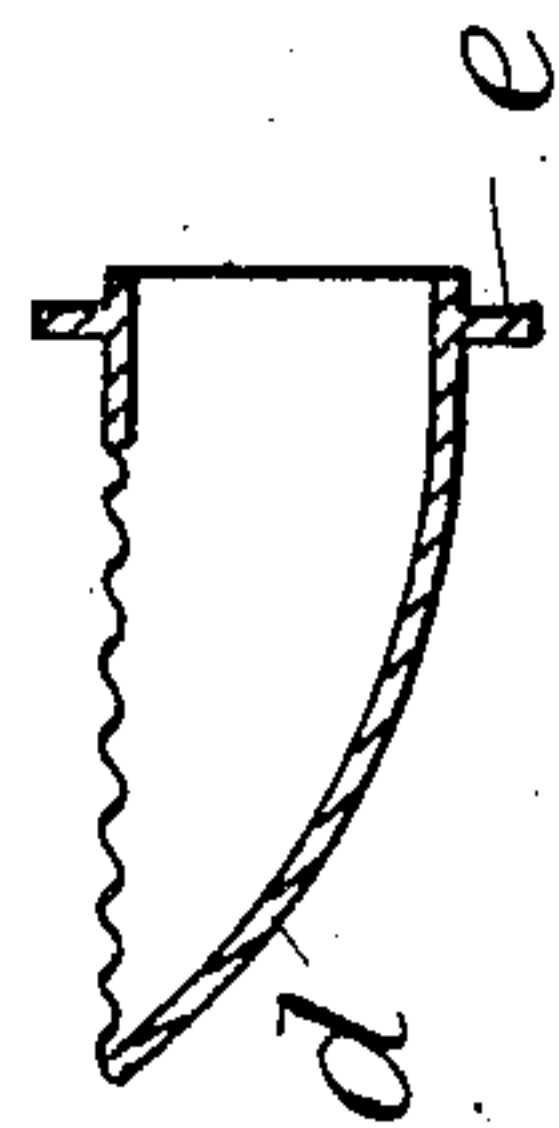


Fig.1.

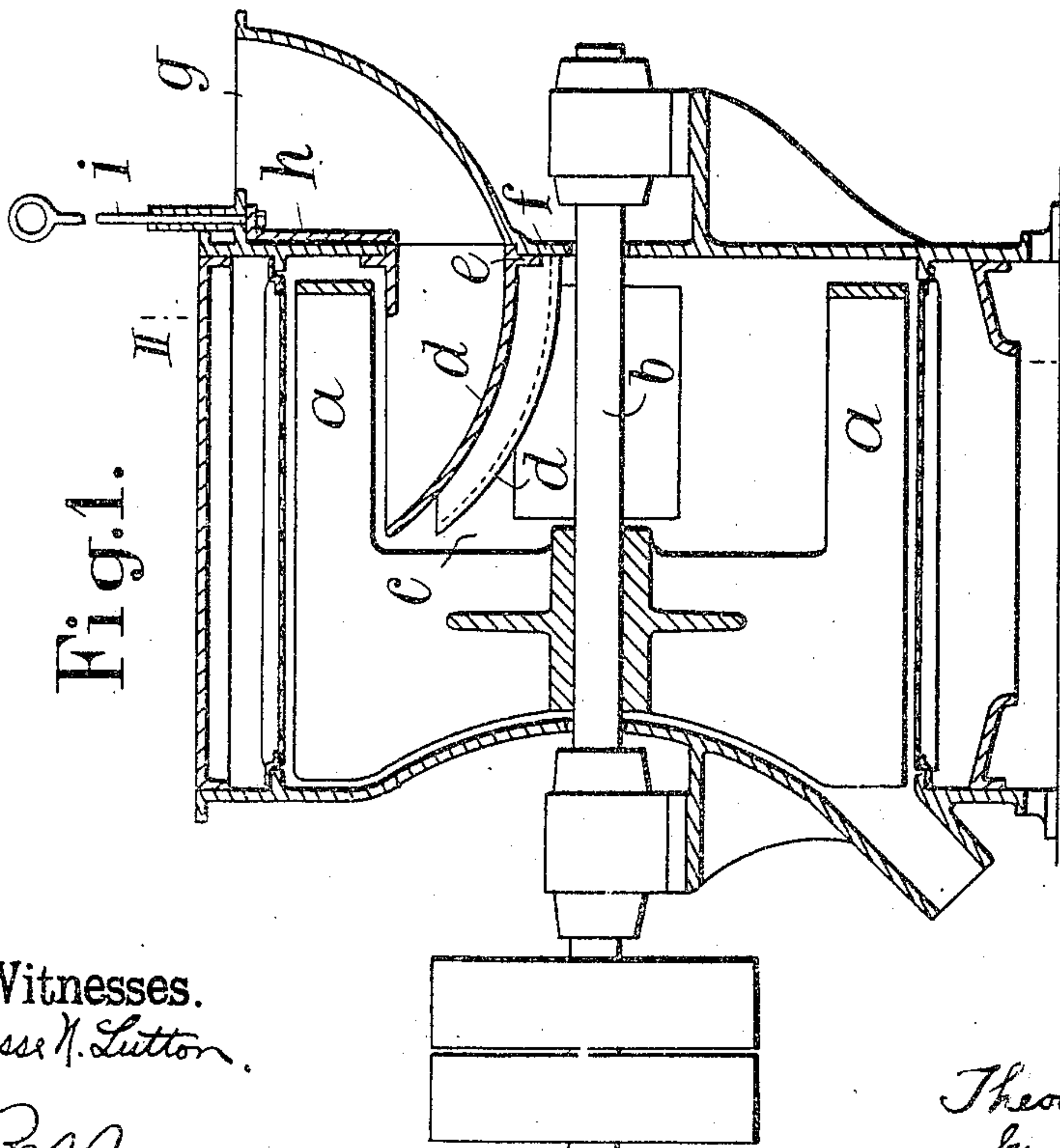
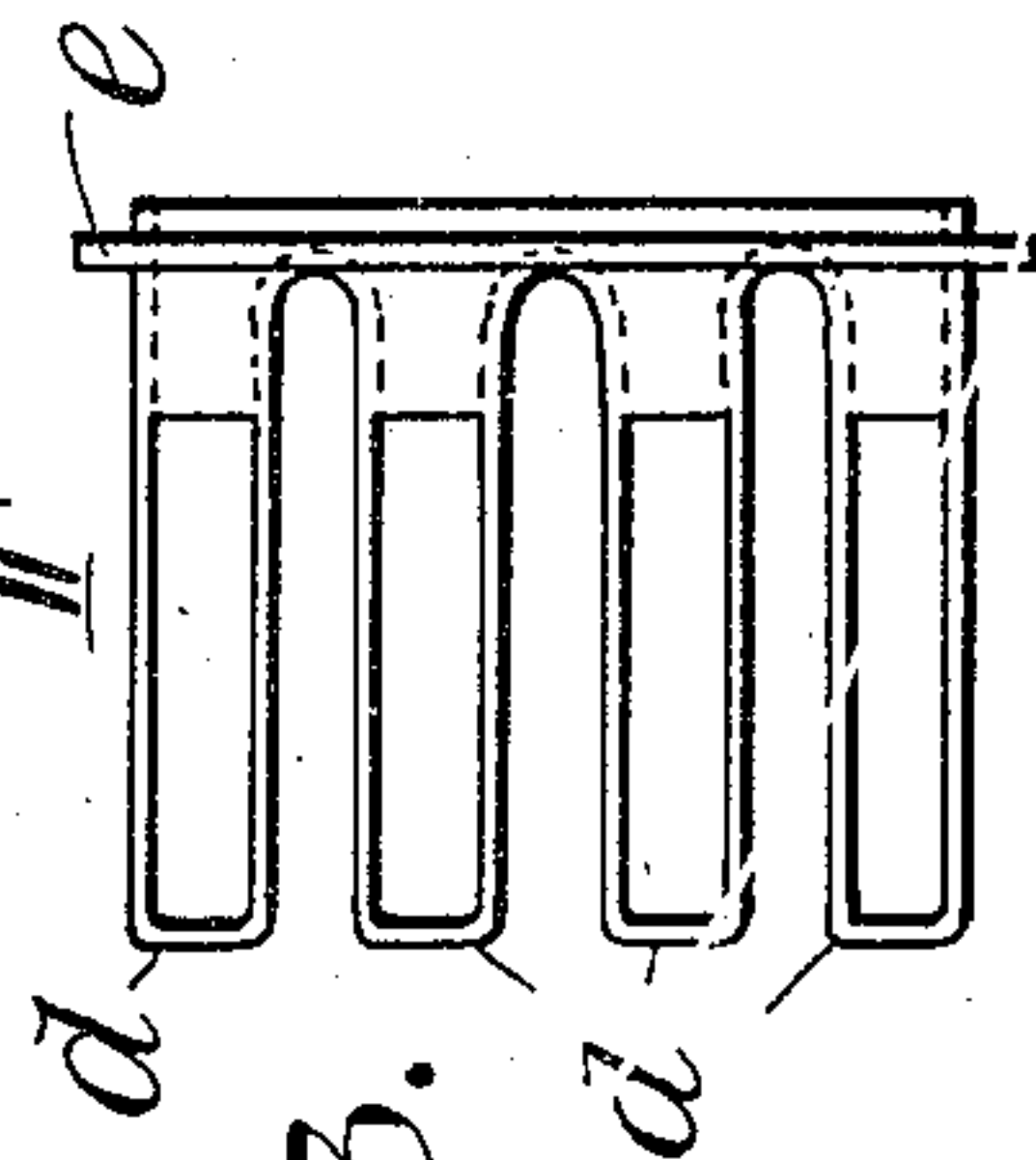


Fig.3.



Witnesses.
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Att.-

UNITED STATES PATENT OFFICE.

HANS STUB, OF CHRISTIANIA, AND THEODOR QVILLER, OF FREDRIKSSTAD, NORWAY.

PULP-STRAINER.

No. 925,337.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed January 9, 1909. Serial No. 471,326.

To all whom it may concern:

Be it known that we, HANS STUB and THEODOR QVILLER, subjects of the King of Norway, residing, respectively, at Christiania, Norway, and Fredriksstad, Norway, have invented certain new and useful improvements in Pulp-Strainers; and we 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Our invention relates to pulp strainers of the kind having a cylindrical or nearly cylindrical straining body and a pulp distributor in the form of a fan or centrifugal drum rotating rapidly inside the straining cylinder; in the type of such centrifugal pulp strainers having a horizontal shaft it has been usual to feed the pulp to the blades of the fan through a tube extending into the central part of the apparatus and having apertures through which the pulp is dispersed in all directions so that it may be caught by the blades of the fan and thrown onto the straining cylinder. We have found that this mode of feeding the pulp does not suit the purpose because if the apertures are made small they are liable to be closed up by pulp and long fibers, and if they are made few in number and larger of size the distribution will not be uniform.

Our invention consists in improved means for feeding the pulp to such straining apparatus. Instead of a tube we employ a plurality of open troughs so disposed in the upper part of the apparatus, that the pulp in leaving the troughs to a greater part is caught by the wings of the fan passing close over the troughs and some of the pulp flowing down on the sides of the troughs is caught by the fan wings on the lower part of the apparatus.

In the annexed drawing we have shown a preferred form of carrying out our invention.

Figure 1 is an axial vertical section through a pulp strainer of the type in question. Fig. 2 is a cross section on the line II—II, Fig. 1. Fig. 3 is a top view of the pulp distributor. Fig. 4 is a detail.

a indicates the wings of the fan, carried by the shaft *b*; each wing is cut out on one side, so that an open space *c* is formed into which the feed troughs *d* extend. In the example shown there are four feed troughs cast in a

single casting, as shown in Fig. 3, the casting having a flange *e* by means of which it may be bolted or otherwise secured to the front wall *f* of the strainer casing, in which a corresponding opening is provided, through which the troughs communicate with the pulp chute or receiver *g*, which is cast on the outside of the said wall. By means of a gate *h*, controlled by the rod *i*, the said opening may be regulated.

As will be seen the troughs *d* are arranged at different levels, so that the distance between their free openings and the wings of the fan in the moment they pass each trough will be substantially the same. Below the troughs may be disposed inclined plates or aprons *k*. The pulp entering the troughs from the receiver *g*, in which it is kept at a certain suitable level by regulating the flow from a feed pipe will pass out over the edges of the troughs, and the wings in passing will catch a considerable part of the pulp while another part will pass down on the aprons and be led out laterally or drop directly down on the wings in the lower half of the apparatus. In this manner an even distribution may easily be secured and no stoppage can occur as all passages are wide and free.

The bottom of the troughs may be curved as shown or have a straight slope toward the inner end, the object of this being to secure an even outflow over the edges of the troughs. These edges are shown straight but may be provided with corrugations as shown in Fig. 4.

Claims.

1. In a pulp strainer a fan on a horizontal shaft, wings in the fan, and a plurality of feed troughs extending into the strainer above the shaft, each of said troughs having a free opening in a substantially horizontal plane.

2. In a pulp strainer a fan on a horizontal shaft radially or nearly radially disposed wings in the fan, and a plurality of feed troughs extending into the strainer above the shaft said troughs having a decreasing sectional area toward the inner end and having free horizontal openings at different levels.

3. In a pulp strainer a fan on a horizontal shaft radially or nearly radially disposed wings in the fan, a plurality of feed troughs extending into the strainer above the shaft said troughs having a decreasing sectional area toward the inner end and having free

horizontal openings at different levels and inclined aprons below said troughs.

4. In a pulp strainer a fan on a horizontal shaft radially or nearly radially disposed
5 wings in the fan, a plurality of feed troughs extending into the strainer above the shaft said troughs having a decreasing sectional area toward the inner end and having free horizontal openings at different levels a pulp
10 receiver on the outside of the strainer casing communicating with said troughs and means

to regulate the flow of pulp from the receiver to the troughs.

In testimony that we claim the foregoing as our invention, we have signed our names 15 in presence of two subscribing witnesses.

HANS STUB.
THEODOR QVILLER.

Witnesses:

O. MILLER,
JOS VAADER.