

(No Model.)

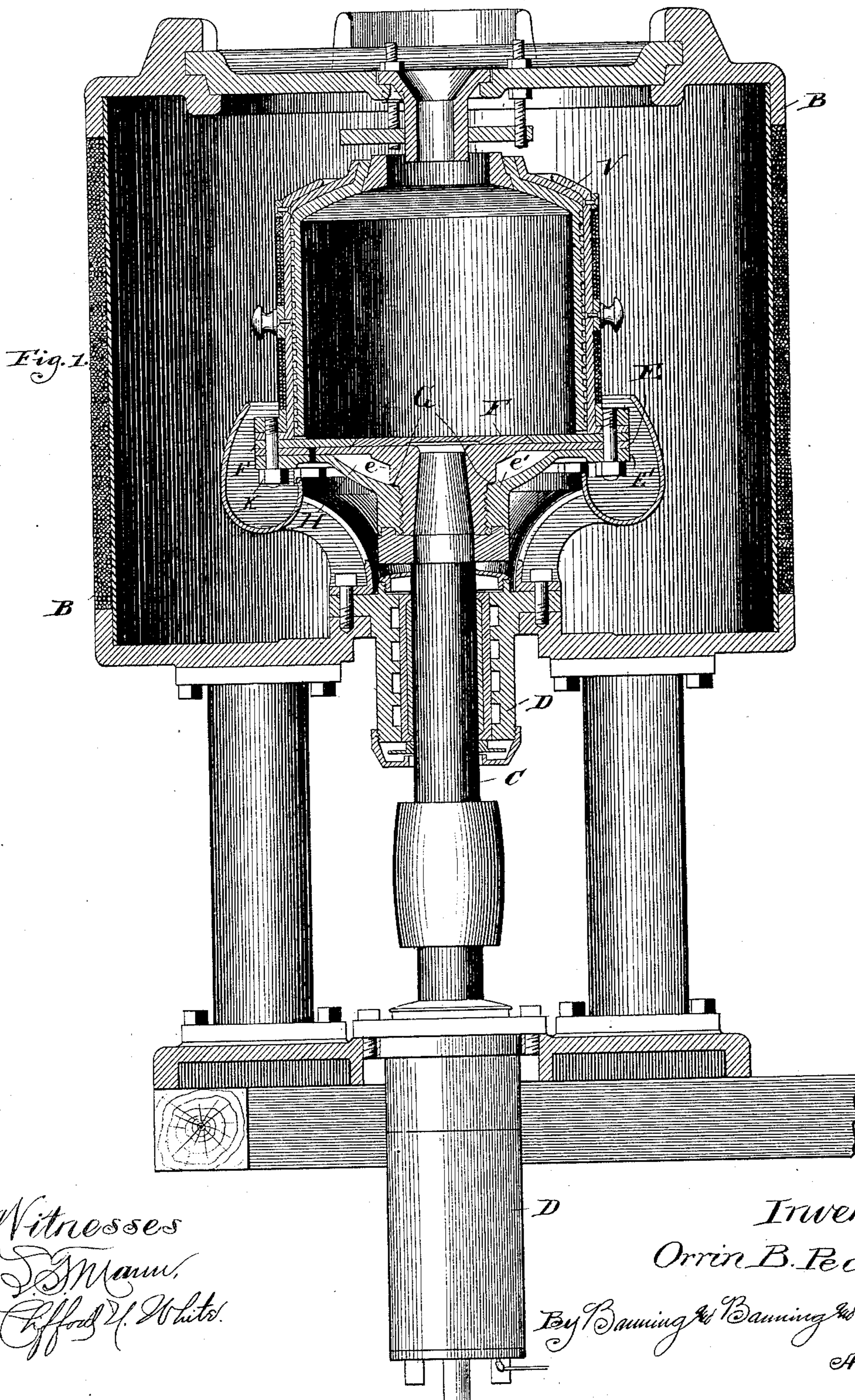
2 Sheets—Sheet 1.

O. B. PECK.

APPARATUS FOR CENTRIFUGALLY TREATING MOLTEN MATERIAL.

No. 433,142.

Patented July 29, 1890.



(No Model.)

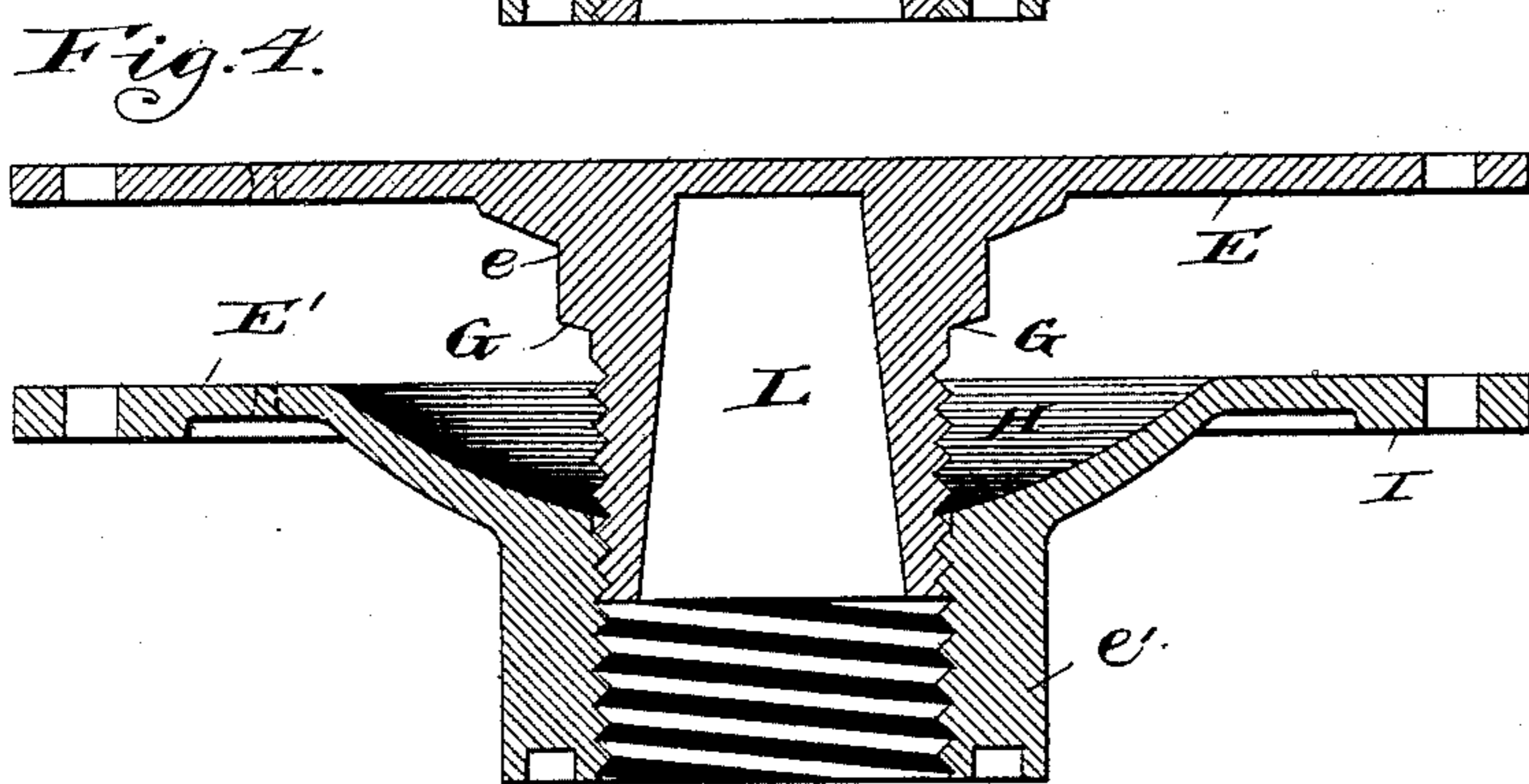
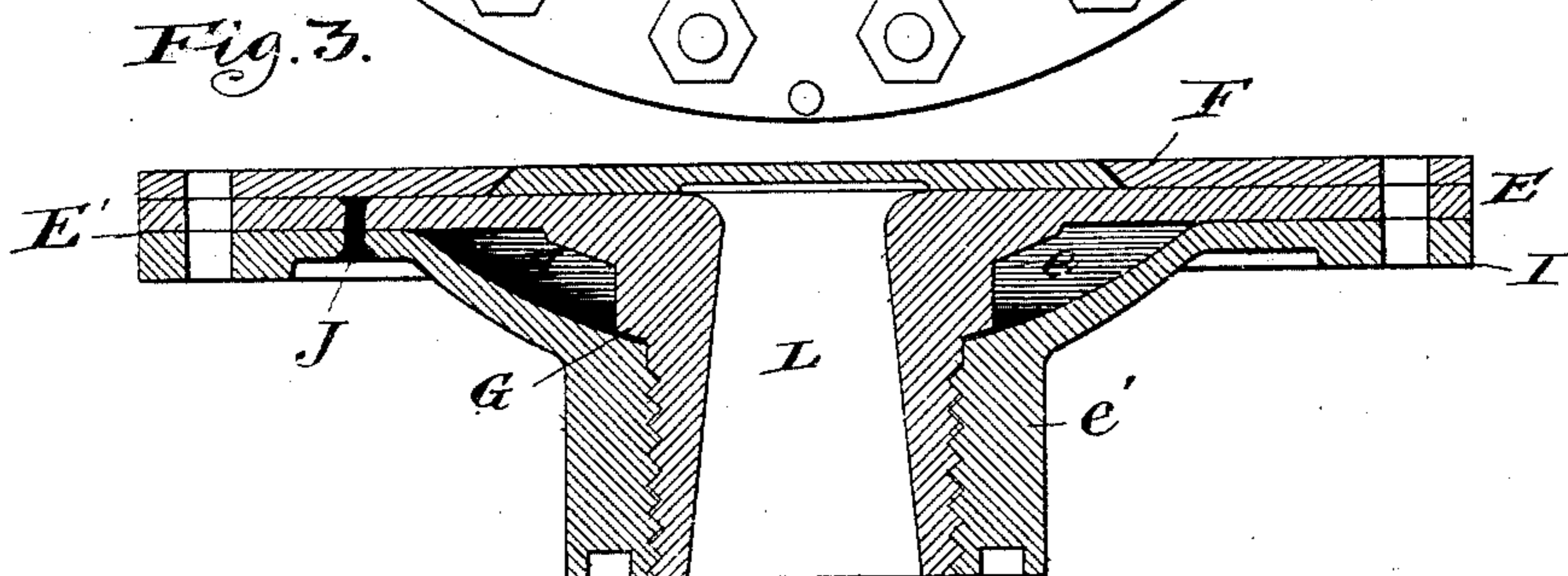
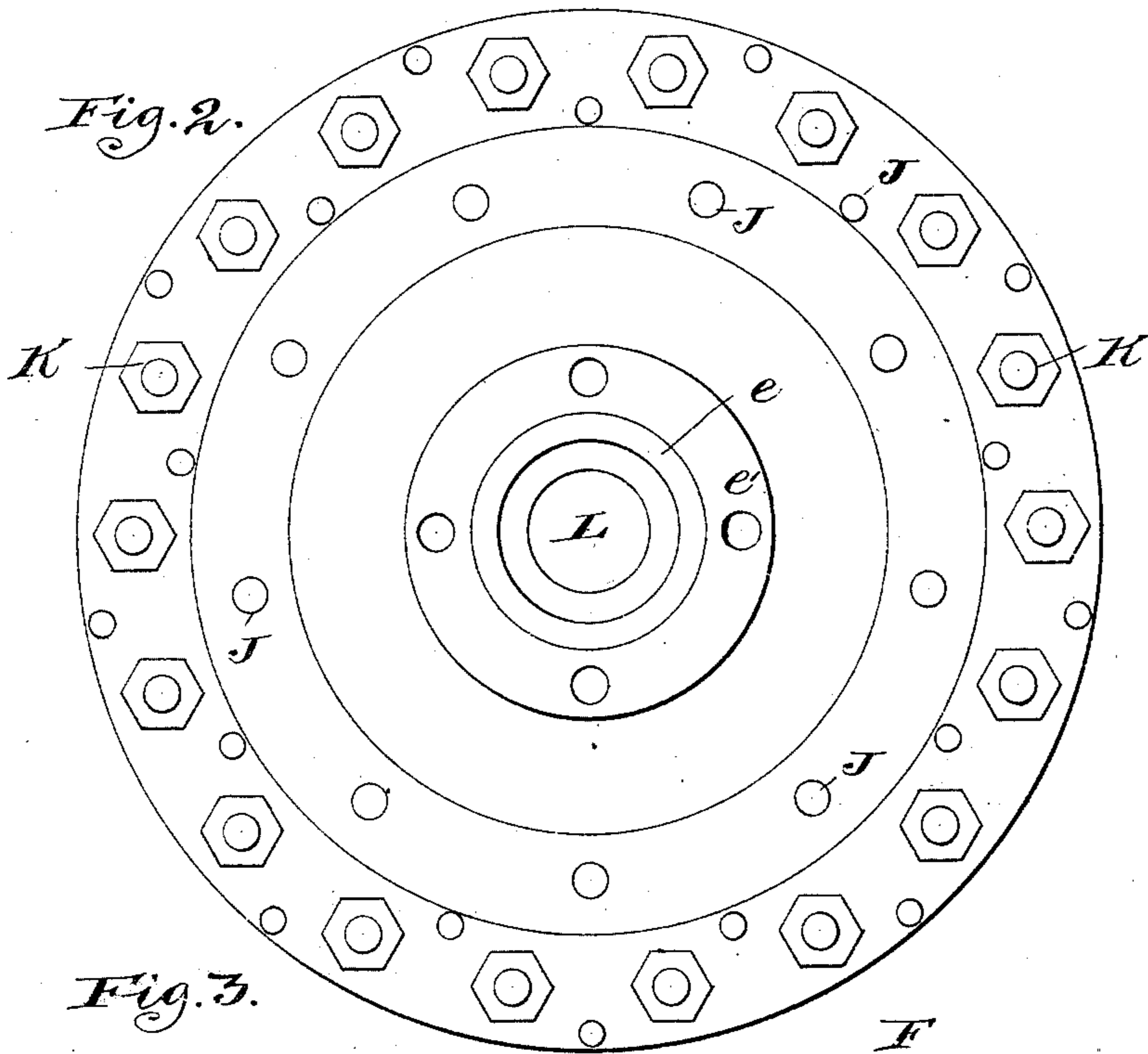
2 Sheets—Sheet 2.

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No. 433,142.

Patented July 29, 1890.



Witnesses
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UNITED STATES PATENT OFFICE.

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SAME PLACE.

APPARATUS FOR CENTRIFUGALLY TREATING MOLTEN MATERIAL.

SPECIFICATION forming part of Letters Patent No. 433,142, dated July 29, 1890.

Application filed March 3, 1890. Serial No. 342,433. (No model.)

To all whom it may concern:

Be it known that I, ORRIN B. PECK, a citizen of the United States, residing at Chicago, Illinois, have invented a new and useful Improvement in Apparatus for Centrifugally Treating Molten Material, of which the following is a specification.

The present invention has more particular reference to the construction of the receiving-vessel; and its object is to provide a simple, strong, and durable bottom for such vessel; and the invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is a vertical central section of a centrifugal machine; Fig. 2, a plan view of the bottom of the receiving-vessel; Fig. 3, a central transverse section of such bottom, and Fig. 4 a similar section of a modified form of bottom with the parts thereof partially unscrewed or separated from each other.

V is the receiving-vessel; B, the curb surrounding the same; C, the shaft for supporting and revolving such vessel; D D, journal-boxes for supporting and maintaining the vertical position of such shaft; E E', upper and lower plates of which the bottom of such vessel is composed, and F the lining-plate for such bottom.

The sides of the receiving-vessel and curb surrounding the same, together with other parts not hereinafter more particularly set forth, have been shown and described in prior patents, and inasmuch as their construction will be obvious from an inspection of the drawings they require no further description.

The very high rate of speed at which the receiving-vessel is revolved, together with the great weight of the material which it is required to carry and support, render it necessary that the vessel should be made of great strength in order to sustain the excessive pressure to which it is subjected. The flattened form of the bottom of the vessel renders it particularly difficult to make this part of sufficient strength to sustain the tremendous pressure to which it is subjected; and it is my object to provide a method of constructing

such bottom in such a manner that while using comparatively a small amount of material I attain exceedingly great strength. I make this bottom in two pieces E and E', which I have termed the "upper and lower plates." The upper plate E is provided with a central downwardly-extending hub or projection *e*. This hub is preferably provided with a proper recess L to receive the upper end of the shaft C, and is provided with an external screw-thread, and preferably also with a shoulder G. The lower plate E' of the bottom is also provided with a central downwardly-extending hub or extension *e'*, internally screw-threaded to mesh or engage with the screw-thread formed upon the exterior of the hub *e*. That portion of the plate E' adjacent to the hub *e'* is preferably swaged or bulged, so as to form a depression or concavity H. I also prefer to re-enforce or thicken such plate at or near its outer edge at a point through which the bolts pass, as shown at I.

The hub of the plate E is inserted into the hub of the plate E' and the two plates screwed tightly together, as shown in Fig. 3. If the hub *e* is provided with a shoulder, as may be the case, if desired, it should be so situated that when the plates are screwed together, as shown in Fig. 3, the shoulder will be brought into contact with the bottom of the depression H. The recess formed in the hub *e* may be closed by means of a separate plate F, which serves as the bottom plate of the vessel, as shown in Fig. 3, or it may be made solid, as shown in Fig. 4. To assist in firmly holding these two plates together, I prefer to provide a number of rivets J, as shown in Fig. 2. The two plates having been fastened together constitute the bottom of the vessel, and may be secured to the side thereof by means of suitable bolts K, and in case the plate F is used the bolts K preferably pass through this also, as shown, and hold it in place. While these plates E E' alone may constitute the bottom of the vessel, I prefer to use some suitable form of lining in addition thereto.

It will be understood that I use the term "plate" in a general sense as meaning a plate strictly, or a frame, or anything that may be

substituted for a plate and secured to the other parts in such a way as to accomplish the desired results.

I claim—

5 1. In a centrifugal machine for the treatment of molten material, a receiving-vessel provided with a bottom comprising at least two plates, the upper plate having an externally-screw-threaded hub or projection and
10 the lower plate an internally-screw-threaded hub or projection corresponding with the externally-screw-threaded projection of the upper plate, whereby the two plates may be firmly and rigidly united by being screwed
15 together, substantially as described.

2. In a centrifugal machine for the treat-

ment of molten material, a receiving-vessel provided with a bottom comprising at least two plates, the upper plate having an externally-screw-threaded hub or projection and a 20 shoulder above its screw-threads, and the lower plate an internally-screw-threaded hub or projection corresponding with the externally-screw-threaded projection of the upper plate, and a seat or support for the shoulder of the 25 upper plate, whereby the two plates may be firmly and rigidly united by being screwed together, substantially as described.

ORRIN B. PECK.

Witnesses:

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SAMUEL E. HIBBEN.