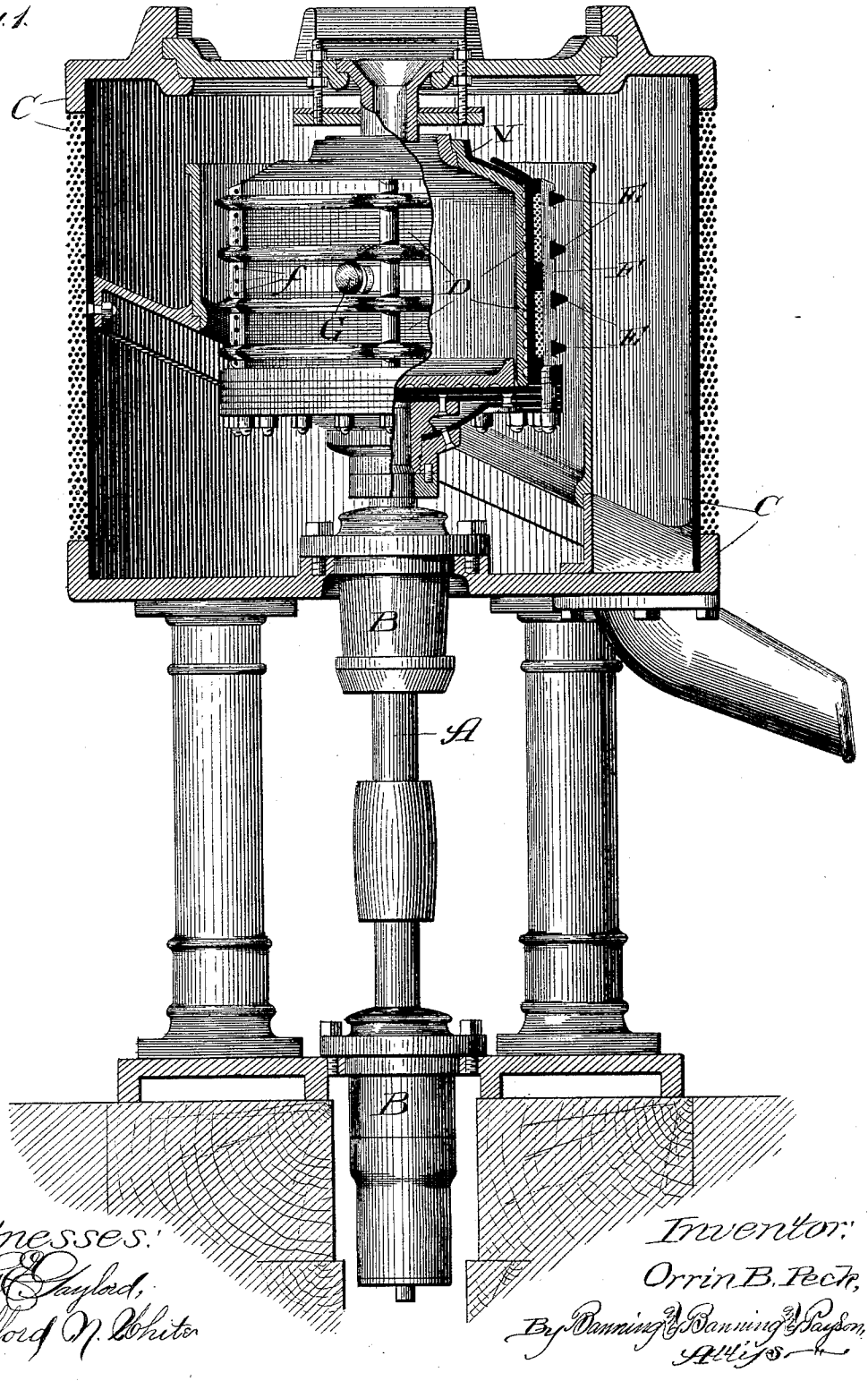
(No Model.) 3 Sheets—Sheet 1.

# O. B. PECK.

## APPARATUS FOR CENTRIFUGALLY TREATING MOLTEN MATERIAL.

No. 433,139. Patented July 29, 1890.

Fig. 1.




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## APPARATUS FOR CENTRIFUGALLY TREATING MOLTEN MATERIAL.

No. 433,139. Patented July 29, 1890.

Fig. 2.

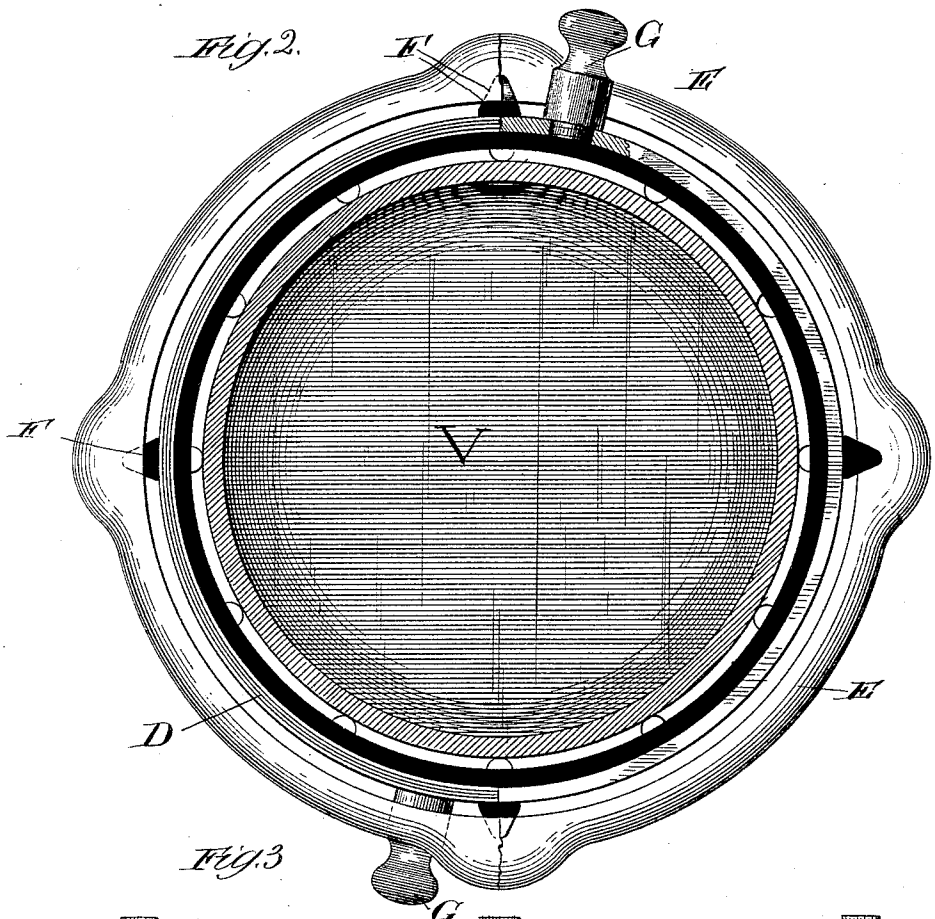
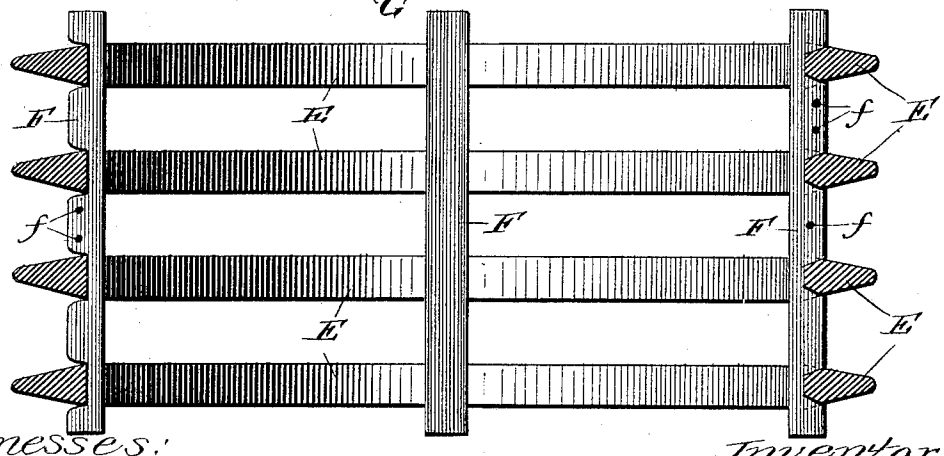



Fig. 3




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(No Model.) 3 Sheets—Sheet 3.

# O. B. PECK.

## APPARATUS FOR CENTRIFUGALLY TREATING MOLTEN MATERIAL.

No. 433,139. Patented July 29, 1890.

Fig. 4.

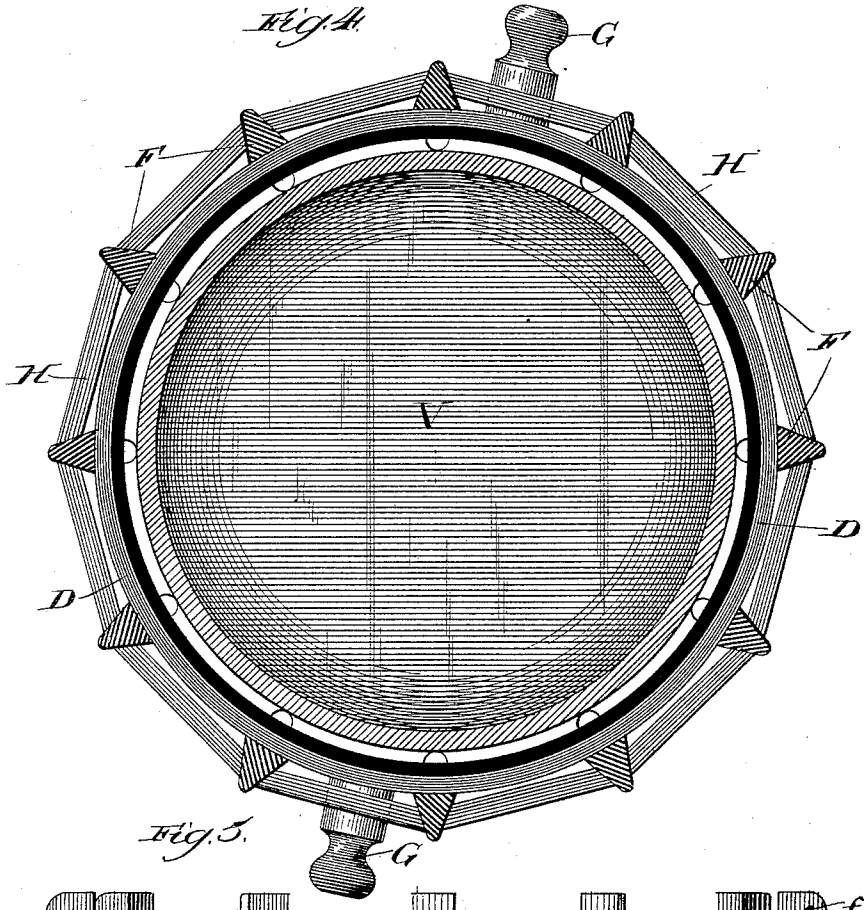
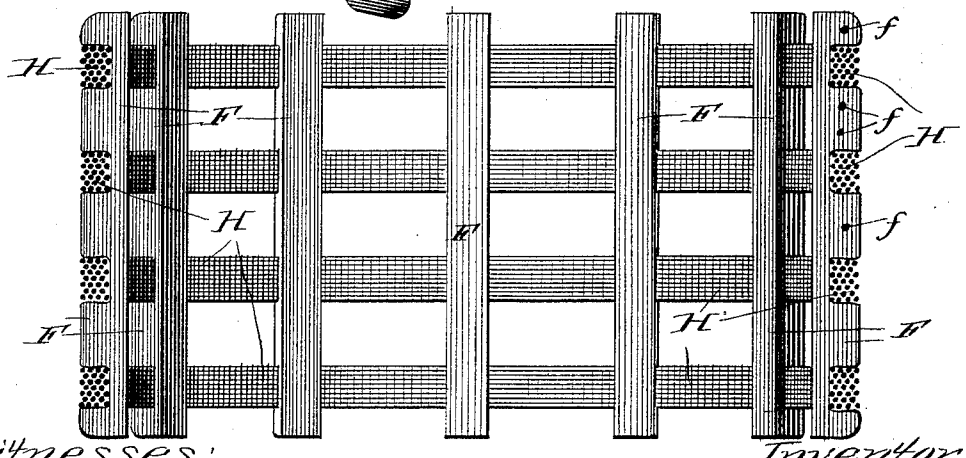



Fig. 5.




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# UNITED STATES PATENT OFFICE.

ORRIN B. PECK, OF CHICAGO, ILLINOIS, ASSIGNOR TO MELINDA PECK, OF SAME PLACE.

## APPARATUS FOR CENTRIFUGALLY TREATING MOLTEN MATERIAL.

SPECIFICATION forming part of Letters Patent No. 433,139, dated July 29, 1890.

Application filed March 3, 1890. Serial No. 342,430. (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 object of this invention is to provide means for protecting the wire with which the receiving-vessel is wound or covered, and at the same time to prevent the unwinding of such wire in case of its breaking at any point, without preventing the application of water to the exterior of the vessel to cool the same; and the invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 represents a vertical elevation, partly in section, of a centrifugal machine embodying my invention; Fig. 2, a horizontal section; Fig. 3, a vertical central section of the wire-protecting device, as shown in Figs. 1 and 2; Fig. 4, a horizontal section of the receiving-vessel, showing a modified form of protecting device; and Fig. 5, a vertical central section of such device.

V is the receiving-vessel; A, the shaft for supporting and revolving the same; B B, the journal-bearings for supporting and maintaining the vertical position of such shaft; C, the curb, and D the wire wrapped or wound around the outside of the receiving-vessel.

The shaft and its bearings and the curb and other parts of the apparatus not hereinafter more fully set forth have been shown and described in prior patents and applications, and inasmuch as their construction will be obvious from an inspection of the drawings they require no further description.

The receiving-vessel is wound externally with one or more thicknesses of wire D, as shown in the drawings. In the use of the machine this wire is liable to be injured or broken accidentally or otherwise, and in the event of a break occurring in the wire the revolutions of the machine will speedily unwind it. To guard against injury or breaking of the wire, and to prevent its unwinding in case of a break, I have provided the device which I will now more fully proceed to describe.

I make a number of rings E of any suitable dimensions and of a diameter a little larger than the external diameter of the receiving-vessel. I then make a number of bars F, as shown more particularly in Fig. 3. These bars are preferably placed vertically at intervals around the outside of the receiving-vessel and against the wire, being preferably long enough to extend across the surface of the wire wrapping. The bars are preferably notched at suitable intervals, as shown, to receive the rings, and the rings are also preferably notched to engage or interlock with the bars. The purpose of these notches is to insure the holding of the rings and bars in their proper relative positions. In applying the rings and bars when made, as shown in Figs. 1, 2, and 3, the trunnions G G should be removed from the receiving-vessel, and the bars and rings having been put together, as shown more particularly in Fig. 3, are slipped down over the wire wrapping on the vessel, preferably extending to the lower flange thereof, and the trunnions may then be replaced and serve to prevent the rings from slipping upward, as will be obvious from an inspection of Fig. 1. The diameter of the rings should be such as to bring the bars into close contact with the surface of the wire, thereby binding and holding the same firmly. It will be obvious that with the rings and bars thus applied the danger of any injury to the wire is greatly lessened. If, however, the wire should break at any point, it will be obvious that the two bars adjacent to the break will prevent any further unwinding. These bars are preferably provided with a number of holes *f* of the proper size to allow the end of the wire to be inserted therein, and in event of the wire breaking the loose or broken end may be secured in one of the holes of the nearest bar.

In Figs. 4 and 5 I have shown a modified form in which the invention may be constructed. The bars in this form are made substantially like those shown in Fig. 3; but in place of the rings F of that figure I substitute coils of wire H, which are wound tightly around the bars and vessel, fitting into the notches or grooves of the former, as particularly shown in Fig. 5, and the ends of the wire secured in any suitable manner. I have shown in the drawings four of these wire coils; but any

other number may be used, as desired, and the number of bars may be increased or lessened at pleasure. In applying this latter form, the desired number of bars being placed preferably in a vertical position around the outside of the wire wrapping, they are then fastened in place and held firmly against such wrapping by means of the wire coils H. The trunnions G need not be removed, but will act, as before stated, to prevent the slipping up of the bars and coils.

Any other means than the trunnions may be employed, if desired, to prevent the bars and the means for holding them from sliding up and off of the receiving-vessel.

In my application, Serial No. 342,437, of March 3, 1890, I have shown and claimed some of the features shown but not claimed in this application.

I claim—

1. In a centrifugal machine for the treatment of molten material, a receiving-vessel provided with a wire wrapping around its outside, bars for protecting the wrapping, and rings for supporting the bars, substantially as described.

2. In a centrifugal machine for the treatment of molten material, a receiving-vessel provided with a wire wrapping around its outside, and rings and bars for protecting the wrapping interlocked and held in place by means of notches, substantially as described.

3. In a centrifugal machine for the treatment of molten material, a receiving-vessel provided with a wire wrapping around its outside, bars for protecting the wrapping provided with holes to receive the ends of broken wire, and means for supporting the bars, substantially as described.

ORRIN B. PECK.

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