(No Model.)

J. W. BARTLETT.

FORMER FOR PULP PAILS.

No. 248,692. Patented Oct. 25, 1881.

Fig. 1

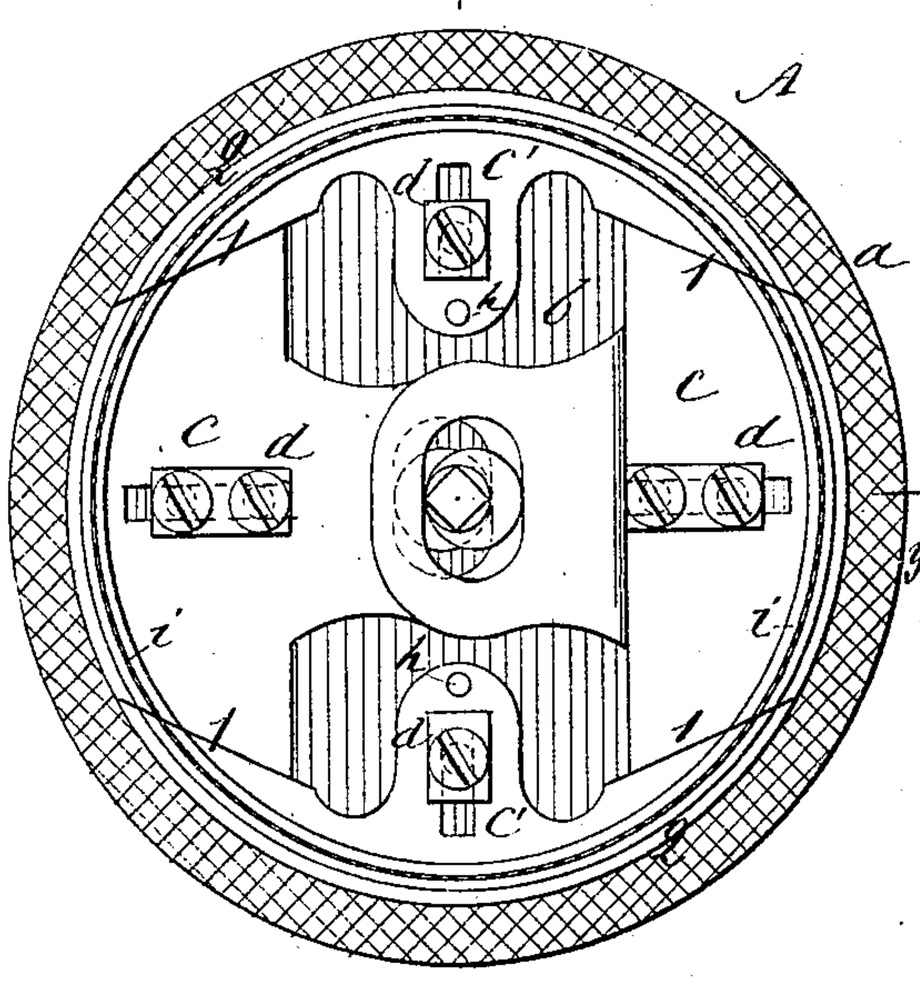


Fig. 2

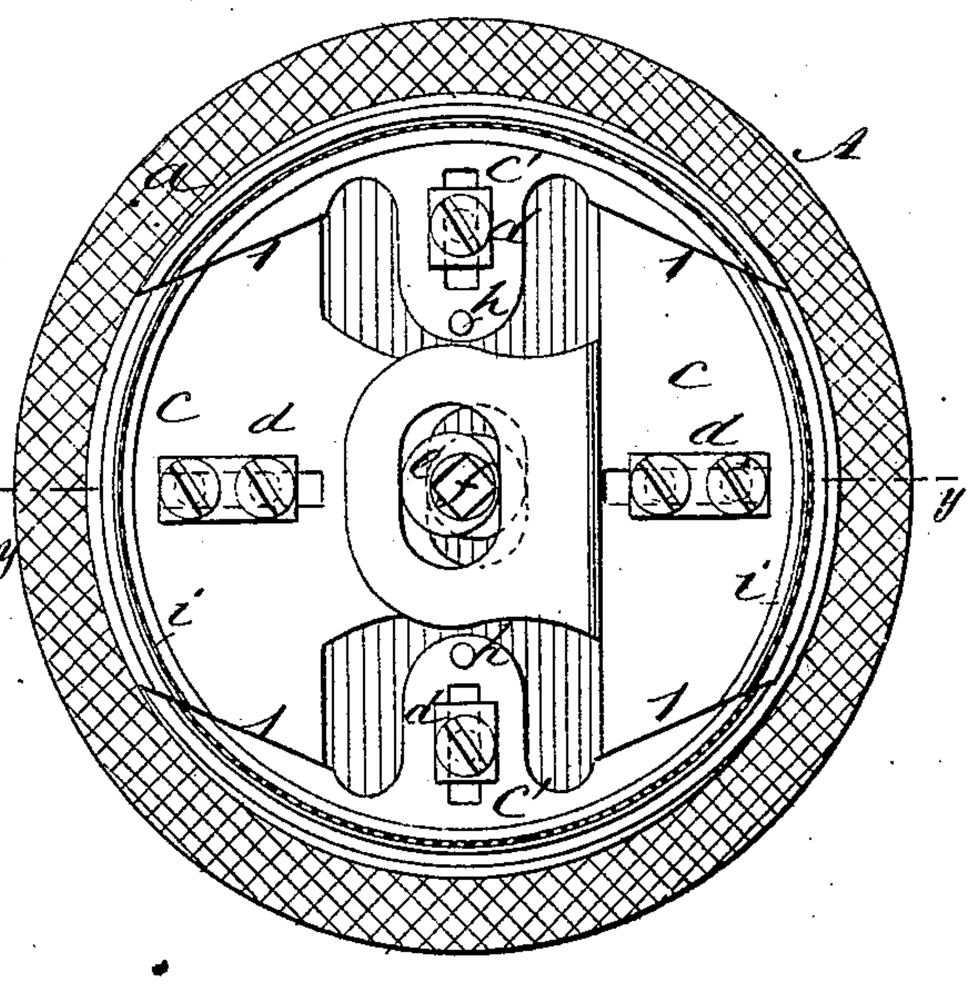


Fig. 3

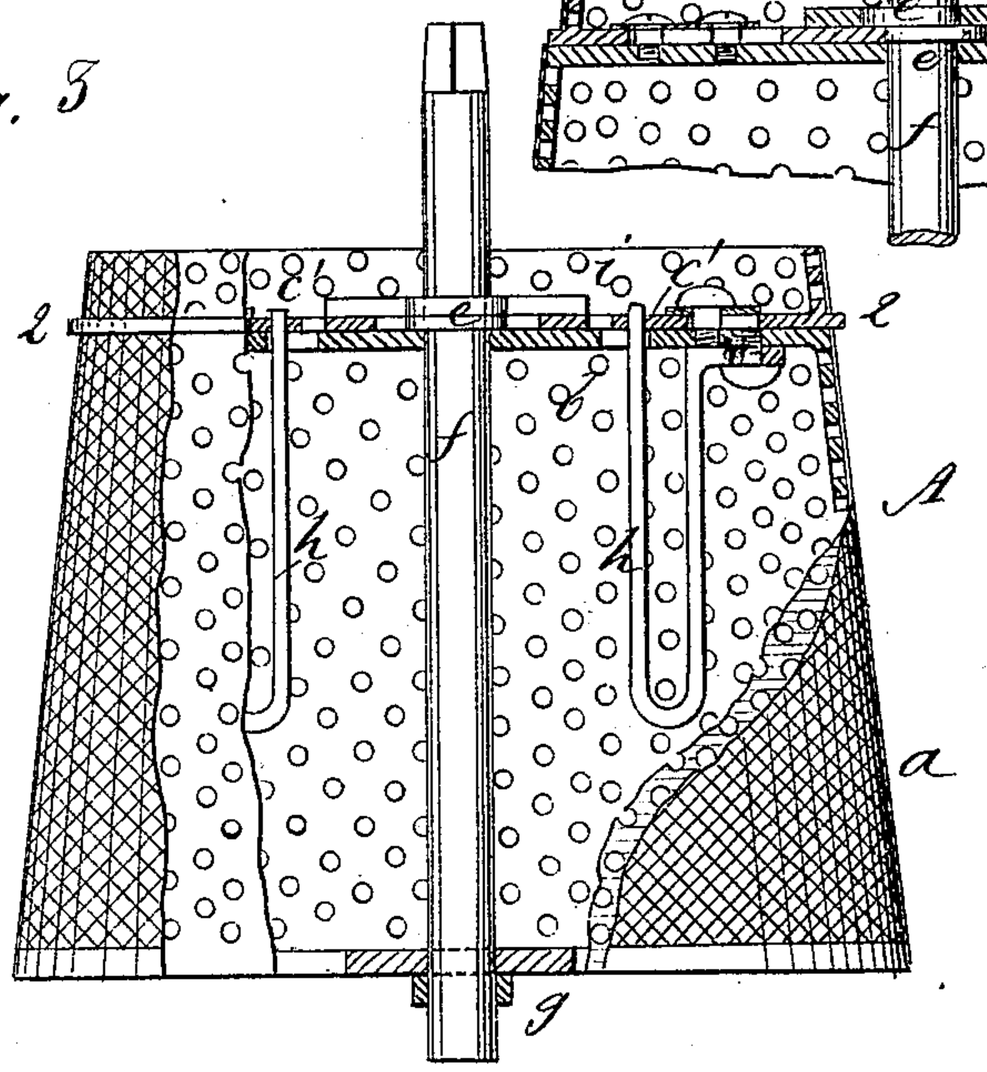
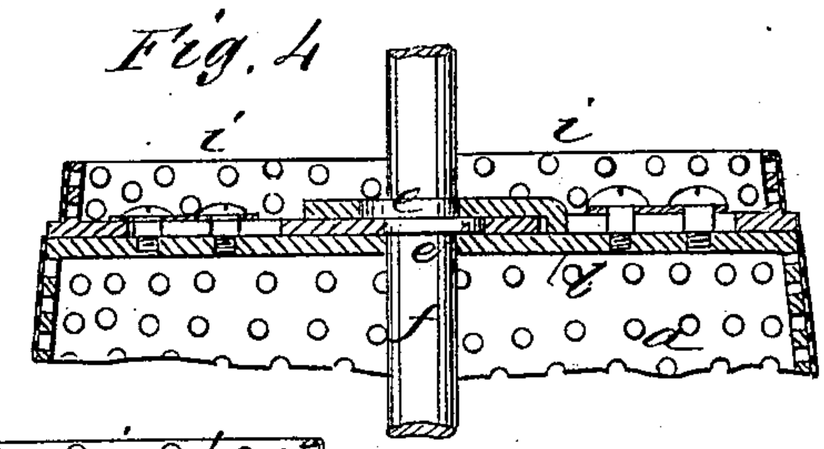


Fig. 4



WITNESSES:

C. Neveux

C. Sedgwick

INVENTOR:

J. W. Bartlett

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN W. BARTLETT, OF GRAND RAPIDS, MICHIGAN.

FORMER FOR PULP PAILS.

SPECIFICATION forming part of Letters Patent No. 248,692, dated October 25, 1881.

Application filed August 10, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. BARTLETT, of Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Improvement in Formers for Pulp Pails, of which the following is a specification.

My improvements relate to conical formers upon which paper-pulp pails are made.

The object of my invention is to permit formation of the crease for receiving the bottom and the chine at the same time the pail is formed, and to permit removal of the pail from the cone without injury to the crease and chine.

The invention consists in an expansible head provided with flanges that form the crease and chine of the pail, combined with a conical former, whereby the head may be expanded while the pail is being formed and withdrawn to permit removal of the completed pail.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of my improved former with the head expanded. Fig. 2 is a plan view of the same with the head drawn in. Fig. 3 is a vertical section of the former on line *x x* of Fig. 1, and Fig. 4 is a vertical section on line *y y* of Fig. 2.

Similar letters of reference indicate corresponding parts.

A is the former, formed with tapering sides *a*, of perforated metal, covered with fine wire-gauze, as usual, and closed at the upper end with cap-plate *b*.

The adjustable head consists of four (more or less) segmental plates, *c c c′ c′*, that are attached to plate *b* by screws *d*, passing through slots in plates *c c′* into the plate *b*, so that the segmental plates *c c′* are capable of radial movement upon the cap-plate. Two of the plates, *c*, at opposite sides of the center, are formed with their inner ends lapped and slotted to receive cams *e e*, which are fixed upon a shaft, *f*, that is journaled in plate *b* and bottom cross-brace, *g*, at the center of former A. The outer ends of these two plates *c* are beveled or formed at the sides with inclines 1, which engage with similar inclines on the other two plates, *c′*, whereby, when plates *c* are moved outward by a wrench applied to shaft *f*, the plates *c′* are also forced out by the inclines. There are springs *h* attached beneath plate *b*, and having their free end extending through slots in plate *b* into holes in plates *c′*. These springs tend to draw the plates *c′* inward and insure their movement in that direction with the plates *c*. The plates *c c′* are fitted so that when forced outward their outer ends project beyond the sides *a* of the former, thereby forming a projecting flange, as shown at 2. Each plate *c c′* is also fitted with a flange, *i*, extending upward, formed of perforated metal covered with wire-gauze. These flanges *i* form a tapering extension of the sides *a* when the segments are forced outward.

In using the conical former the main body of the pail is formed on the cone by the pulp, and the segmental plates *c c′* being outward, the chine is formed on the flanges *i*, while the flanges 2 form an annular groove or crease between the chine and the body for the after insertion of the bottom. By drawing the plates *c c′* inward the flanges *i* are withdrawn from the chine and flange 2 carried inside of the line of sides *a*, so that the completed pail can be removed without marring the crease or the chine.

I do not limit myself to the number of segments used to form the adjustable head, nor to any special arrangements of cams and inclines for moving the segments.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a conical former, of an expansible head having plates *c c′*, provided with flanges *i* 2 to form the crease and chine of the pail, as shown and described.

2. In a former, the slides *c′ c′*, having lapped rear ends fitting by slots over the cams *e* and the front bevels or inclines, 1, in combination with the slides *c c*, provided with corresponding inclines, and arranged to be operated by the slides *c′*, as shown and described.

JOHN W. BARTLETT.

Witnesses:
D. E. CORBITT,
S. R. BARTLETT.