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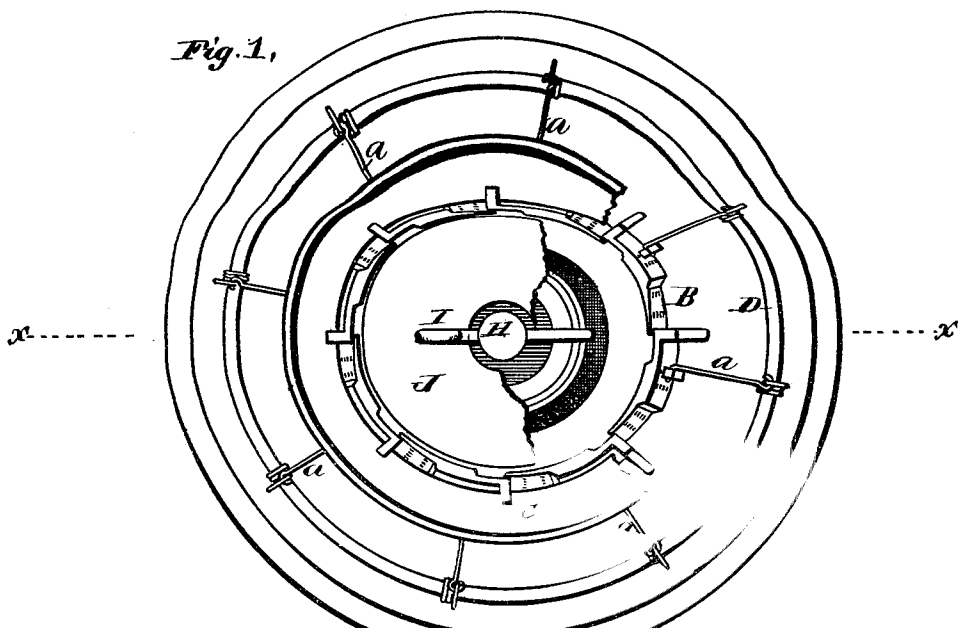
E. HUBBARD.

MACHINES FOR MAKING PAILS FROM PAPER-PULP.

No. 180,882.

Patented Aug. 8, 1876.

Fig. 1.



UNITED STATES PATENT OFFICE.

EBER HUBBARD, OF MEDINA, NEW YORK.

IMPROVEMENT IN MACHINES FOR MAKING PAILS FROM PAPER-PULP.

Specification forming part of Letters Patent No. **180,882**, dated August 8, 1876; application filed March 15, 1876.

To all whom it may concern:

Be it known that I, EBER HUBBARD, of Medina, in the county of Orleans and State of New York, have invented certain new and useful Improvements in Molds or Presses for making Pails from Pulp, of which the following is a specification:

My present invention is intended as an improvement upon the Letters Patent No. 172,856, granted to me February 1, 1876; and has for its object to adapt the machine therein described to making paper pails. To this end the nature of my invention consists, essentially, in the construction of the inner former, and also in connecting the staves of the outer former to retracting-springs, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the bed of the machine, upon which is arranged a series of staves, B B, of such form that their interior surface will have the form desired for the pail. These staves are constructed in precisely the same manner as described in my former patent, above referred to, and on the outside of said staves are placed the compressing-rings C C. Each stave A is, by a rod, *a*, connected to a wire spring, *b*, fastened in the bed-plate, and coiled around a ring, D, placed thereon. The action of the springs *b* is to hold the staves in place around the inner circumference of the compressing-rings; and when the process of making the pail is completed, and the rings C are raised, these springs retract the staves to their original position. The inner former consists of a perforated metal cone, E, covered on the outside with wire-cloth, and upon its upper smaller end is placed a detachable ring, G, of the same material. This ring is also conical, and placed with its small end on the small end of the former E, causing a shoulder, *d*, at the joint or junction of the two parts. This

forms a shoulder near the small end of the pail to support the bottom. The ring G forms the inside of the chine, and is removed in the opposite direction from the balance of the form. From the center of the bed A rises a post, H, and a cover, J, is placed thereon, and fastened by a key, I.

In order to make a pail the space between the inner and outer forms is filled with pulp, the cover then put on and fastened with the key. The rings are then forced down, which closes the press and expels the water. The press is then expanded, the cover removed, and the inner form, with the pulp upon it, is lifted up out of the press, and set away to dry, and another form put in the press.

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

1. The inner conical form E, with the detachable flaring ring G placed thereon, and forming the shoulder *d* at the junction, for the purposes herein set forth.

2. The combination of the conical form E with detachable flaring ring G and a series of exterior compressible staves, B, as and for the purposes set forth.

3. The combination of the compressible staves B and the retracting-springs *b* connected thereto, for the purposes set forth.

4. The combination of the bed A with post H, staves B, rings C, inner former E G, cover J, and key I, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EBER HUBBARD.

Witnesses:

EDMUND L. PITTS,
H. V. BLOOD,
E. FULLER, Jr.

T. D. & G. E. HUSBAND.
AUTOMATIC FERRY-BOAT COUPLING.

No. 180,883.

Patented Aug. 8, 1876

Fig. 1

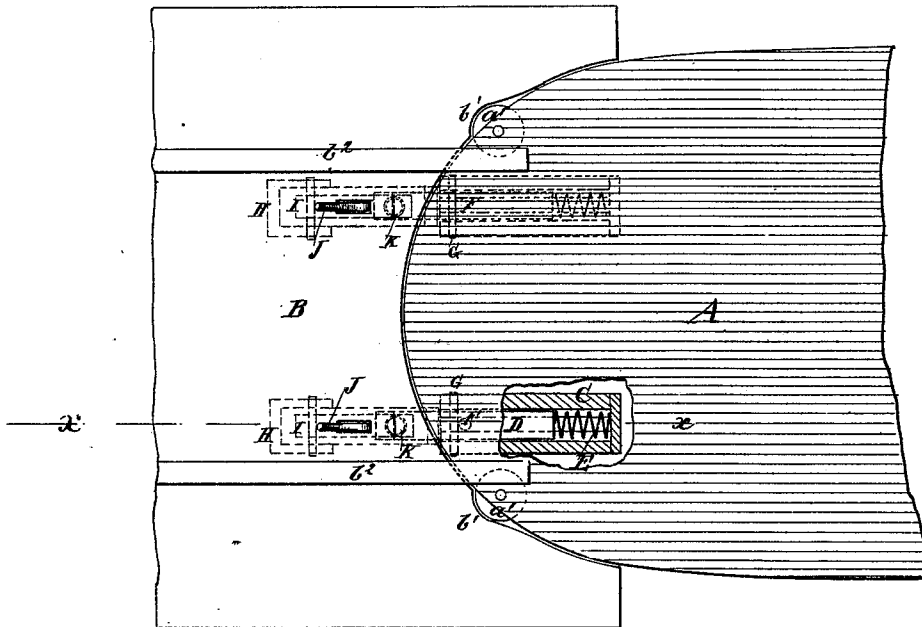
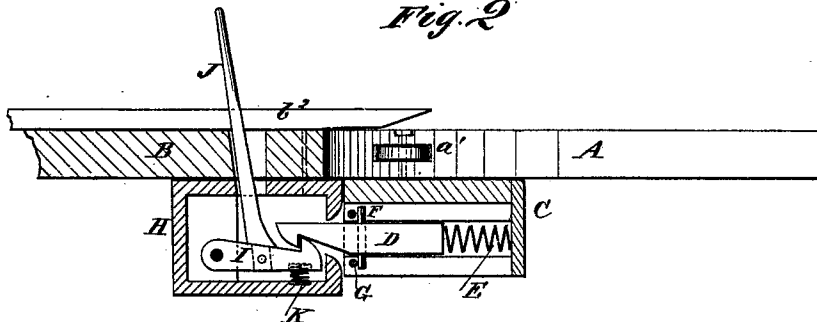


Fig. 2



WITNESSES:

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