W. G. PENNYPACKER.

Centrifugal Machine for Making Paper-Barrels.

No. 164,761. Patented June 22, 1875.

Fig. 3.

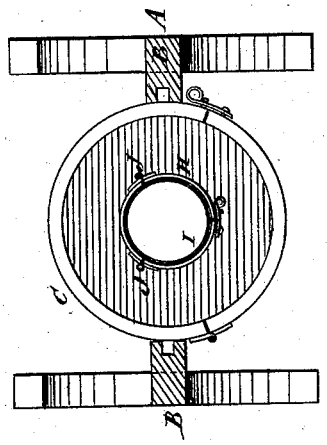


Fig. 1.

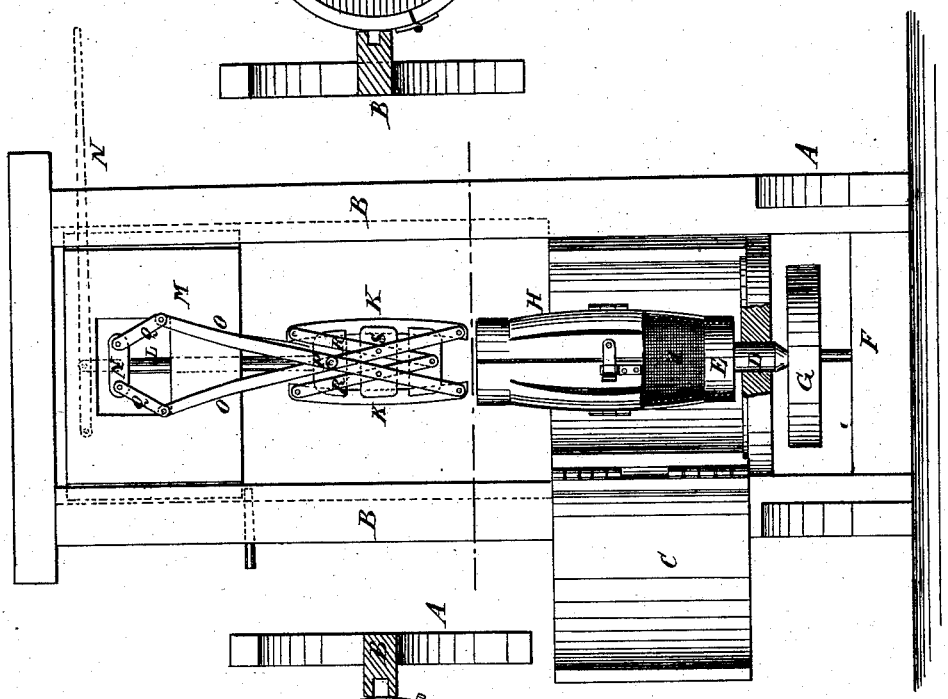


Fig. 2.

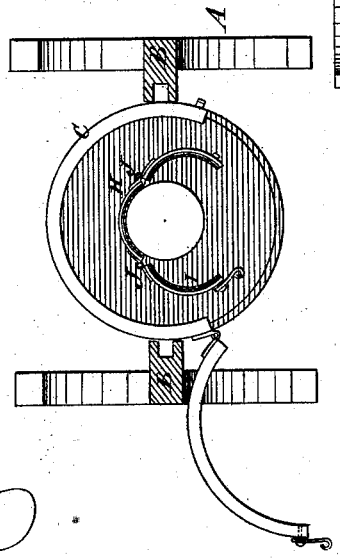


Fig. 5.

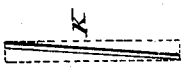
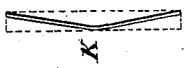


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM G. PENNYPACKER, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN CENTRIFUGAL MACHINES FOR MAKING PAPER BARRELS.

Specification forming part of Letters Patent No. **164,761**, dated June 22, 1875; application filed April 24, 1875.

To all whom it may concern:

Be it known that I, WILLIAM G. PENNYPACKER, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Improvement in Centrifugal Machine for Making Paper Barrels and other vessels, of which the following is a specification:

The invention will be first fully described in connection with drawing, and then be pointed out in the claim.

In the accompanying drawing, Figure 1 is an elevation of the entire machine. Fig. 2 is a section taken on the line *x x* of Fig. 1, showing the casing and centrifugal cylinder open, as when removing the barrel. Fig. 3 is a section looking from the same line, showing the cylinder and casing closed, as when in operation. Figs. 4 and 5 are views of the adjustable strikes.

Similar letters of reference indicate corresponding parts.

A is the frame, which is upright, with grooved uprights B B, to which is rigidly fastened the casing C. This casing is made in two or more parts, which are hinged together so as to open longitudinally, as seen in Fig. 2. D is an upright shaft which extends through the bottom E of the casing, and is stepped into the base timber F of the frame. G is the driving pulley. H is the centrifugal cylinder, which is attached to the top of the shaft D. The cylinder H may be of any form. In the drawing it is shown bilged to form the outside of a barrel. I represents wire-gauze on the inside of the cylinder. J represents hinges, which allow the cylinder to be opened longitudinally, as seen in Fig. 2. This cylinder is given a rapid rotary motion by means of a belt on the pulley G. The pulp is placed in the cylinder, and is thrown in contact with the wire-gauze sides by centrifugal motion, and forms a coating on the same. K K represents the adjustable "strikes." The strikes are connected with a stationary rod, L, which rod extends up through the sliding block M, or cross-head. The strike is expanded and contracted by what is known as "lazy-tongs." N is the head of the same. O are rods attached to the two strikes K K, and crossed, as seen at P, on opposite sides. The rods O are pivoted to the short rods Q, and the rods Q are pivoted to the head N. R are the rods on the sides of the strike, which are pivoted to the top of the strike K K, and to the long rods O. S is the cross-piece fixed to the rod L, the ends of which are grooved to receive the strikes K K. When the head N is raised or lowered the strike is expanded or contracted to suit the thickness of the barrel or other vessel. N′ (seen in dotted lines) is a lever for raising and lowering the strikes. A rack and pinion may be used in this connection, if desired. At the proper time, the "strike" (having been properly adjusted) is lowered into the centrifugal cylinder, and the interior surface of the pulp coating is struck to the required shape and thickness. The strike may be expanded or adjusted after it is lowered.

By the action of the strikes the pulp is distributed evenly over the entire surface of the cylinder, and the cylinder is allowed to revolve until a sufficient quantity of water has been thrown off through the sides, when the cylinder is stopped. The strike K is contracted and raised out of the cylinder, and the casing and cylinder are opened and the barrel is removed entire. The cylinder and casing are then closed, and the operation is repeated. Cylinders of any required design may be then spun up, as must be obvious to any one.

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

The combination of rotary centrifugal cylinder and circumjacent case, both made in sections that open and close longitudinally, as and for the purpose specified.

WM. G. PENNYPACKER,

Witnesses:

ALBERT W. SMITH,

JOHN H. MUHLHAUSER.