

(No Model.)

J. T. & H. A. PORTER.
PAPER PULP SAVING MACHINE.

No. 292,947.

Patented Feb. 5, 1884.

Fig. 3.

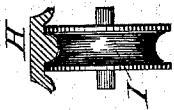


Fig. 2.

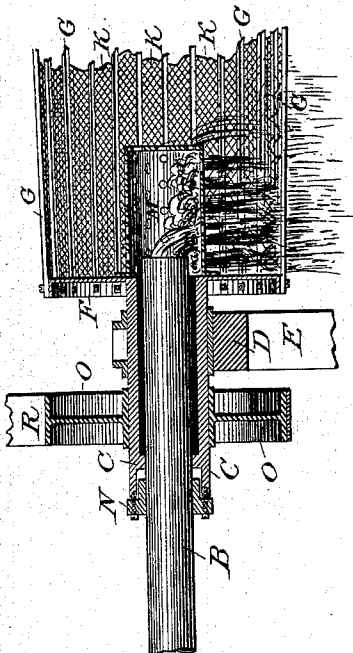
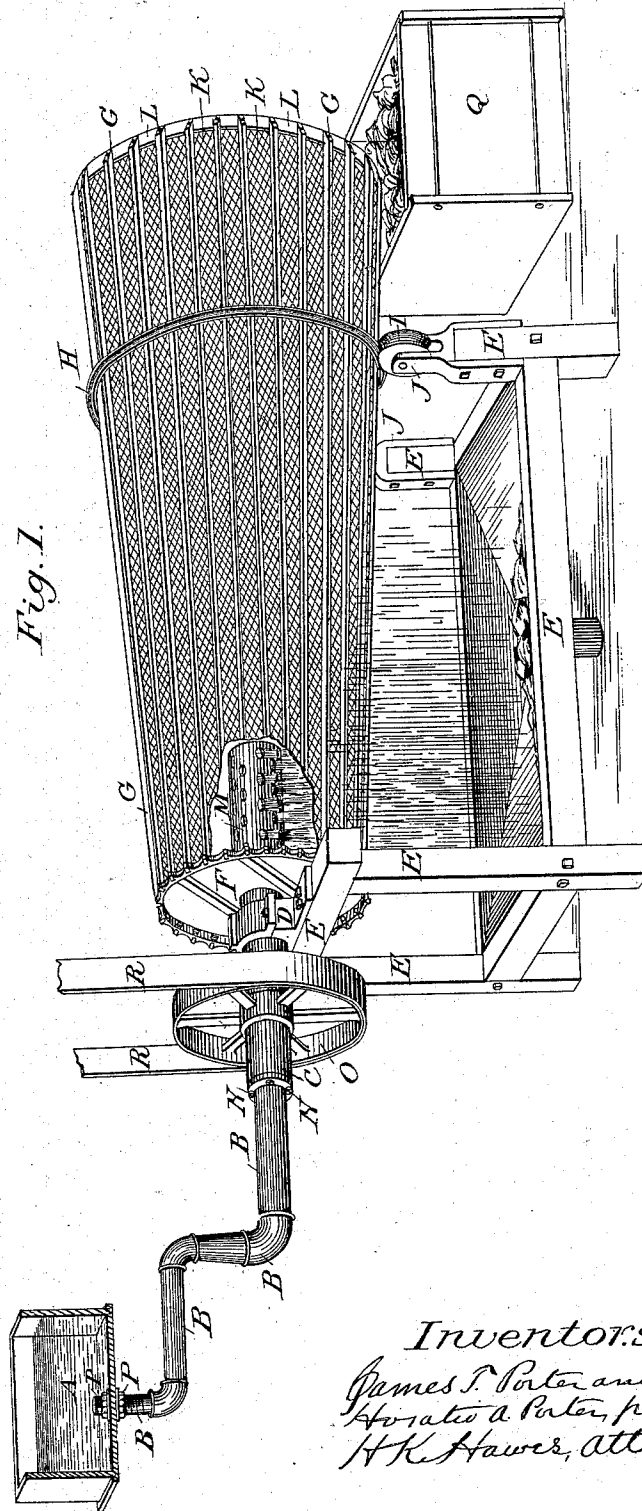


Fig. 1.



Witnesses:
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Inventors:
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UNITED STATES PATENT OFFICE.

JAMES T. PORTER AND HORATIO A. PORTER, OF HOLYOKE, MASS.

PAPER-PULP-SAVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 292,947, dated February 5, 1884.

Application filed October 27, 1883. (No model.)

To all whom it may concern:

Be it known that we, JAMES T. PORTER and HORATIO A. PORTER, citizens of the United States, residing at Holyoke, Hampden county, Commonwealth of Massachusetts, have invented a certain new and useful Improvement in a Paper-Pulp-Saving Machine, or Save-All, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

The object of our invention is to save the paper-stock which usually runs to waste from the paper-machines and stuff-chests in a clean state, so that it may be used again; and it consists of a pipe leading from the mixing-vats and stuff-chests, as shown in Figure 1 of said drawings.

Fig. 1 is a perspective and sectional view of our invention. Fig. 2 is a sectional view, showing the relative parts and their relation to each other. Fig. 3 is a sectional view of the encircling band which protects the wire of our invention from the water or dirt which might fall upon it by the rotating of the save-all.

Similar letters of reference indicate similar parts.

A is the chest containing the pulp or stock to be saved.

B is the pipe, running from any desired point above the bottom of the pulp-chest, which is adjusted to the desired height by the nuts P P', said pipe running from the stuff-chest to the machine or save-all.

C is the hollow shaft entered by pipe B, and secured by nut N.

D is the box which carries the hollow shaft C, and is supported by the frame E and the circular band H.

E is the said frame for supporting the machine.

F is the head of the machine or save-all.

G G G G are the ribs that re-enforce screen K.

H is the encircling band running on the concave pulley I.

I is the grooved pulley.

J is the stand supporting the grooved pulley on the frame E.

K is the screen inside the ribs G.

L is the strengthening-band to fasten the outer end of the screen K and strengthen the ribs G.

M is the perforated cylinder, which is attached to the head of the rotating save-all, and covers the head of the supply-pipe B.

N is the packing-nut which tightens the packing between the supply-pipe B and the hollow shaft C.

O is the pulley which runs the save-all.

P P' are the check-nuts which adjust the height of the pipe B in relation to the bottom of the box A.

Q is a box or ear for receiving the pulp as it empties itself.

The pipe before referred to, B, enters the save-all through the journal C, which is connected with the head of the save-all, and the end of which projects into the machine several inches, and is surrounded by a perforated cylinder, M, which is affixed upon the inside to the head of the save-all, and the function of which is to agitate the stock by its rotation, thereby more evenly distributing the same over the bottom and sides of the save-all, so that the water may freely percolate through the screen K of the save-all, and that the pulp may be more evenly distributed and carried more freely through the save-all to its receptacle at the outer end of the screen. The save-all is supported by the frame E, and is rotated by means of the pulley O, or its equivalent, fastened on the shaft C and running in the box D and the concave pulley I. The hollow shaft C and the iron head F are lined with copper or brass, so as to avoid rust, which occurs with any other lining.

Having thus described the object and operation of my invention, what I claim is—

1. The combination, with the revolving screen or save-all and the stuff-box, of a pipe projecting above the bottom of the said box, and connecting the same with the save-all, and a perforated screen, into which said pipe discharges, and which is connected with the head of the said revolving screen or save-all, so as to rotate therewith, substantially as set forth.
2. The combination, with the frame E and the rotary screen or save-all, of the encircling band

II and one or more grooved pulleys, I, supported by said frame, and adapted to receive said band, substantially as set forth.

3. The combination, with the rotary screen
5 or save-all, of the hollow shaft C, connected with the head thereof, the pipe B, entering said shaft, and the securing-nut N, substantially as set forth.

4. The combination, with the stuff-box A,

of the pipe B, projecting above the bottom of 10 the said box, and the check-nuts P P', for adjustably securing said pipe in place, substantially as described.

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