C. C. WEBBER.

Centrifugal Hydro-Extractor.

No. 161,719. Patented April 6, 1875.

Fig. 1.

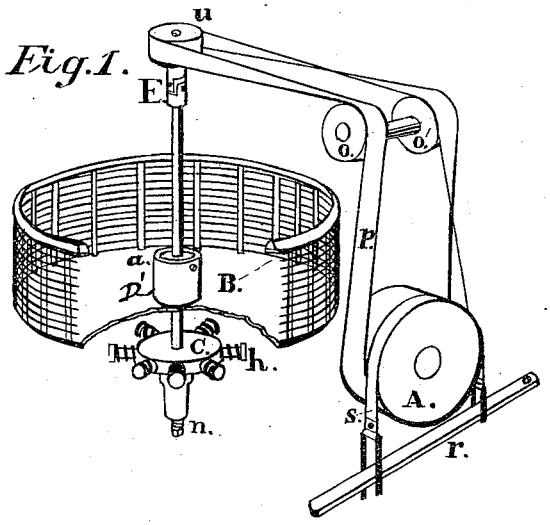


Fig. 2.

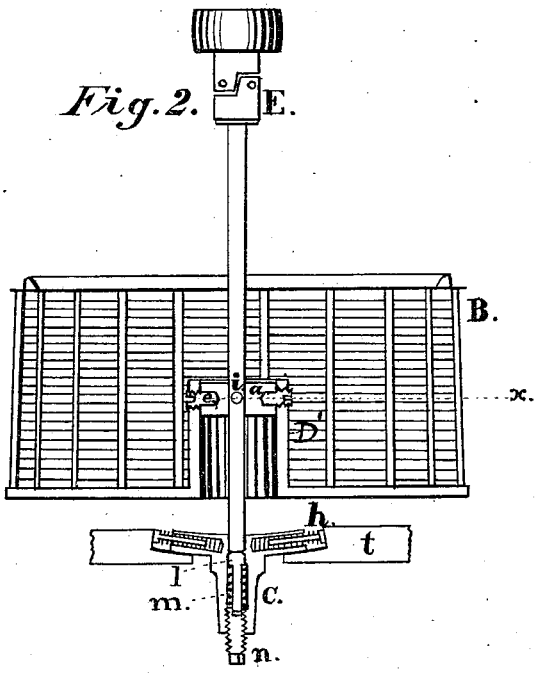


Fig. 3.

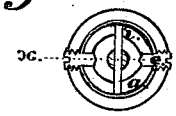
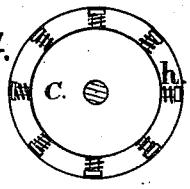


Fig. 4.



Witnesses;

J. S. Webber

Frank Bube

Inventor;

C. C. Webber

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

CHARLES C. WEBBER, OF HOLYOKE, MASSACHUSETTS.

IMPROVEMENT IN CENTRIFRUGAL HYDRO-EXTRACTORS.

Specification forming part of Letters Patent No. **161,719**, dated April 6, 1875; application filed August 20, 1874.

To all whom it may concern:

Be it known that I, CHARLES C. WEBBER, of Holyoke, Massachusetts, have invented an improvement in Centrifugal Hydro-Extractors, of which the following is a specification:

The object of my invention is to provide a centrifugal hydro-extractor in which the basket shall operate to rotate in a horizontal plane independently of the shaft—that is to say, in which the shaft may have at one end, aside from its own rotating movement on its axis, a rotating or oscillating movement around a vertical line extending from its point of support, and at the same time the basket may revolve in a horizontal plane without any such oscillating movement.

Figure 1 is a perspective view of a centrifugal hydro-extractor, made according to my invention. Fig. 2 is a vertical central section of the same. Fig. 3 is a plan view of the ring and pivots by which the basket is secured to its shaft; and Fig. 4 is a plan of the foot-plate in which the revolving shaft has its bearing.

In the drawings, B is the basket, in the bottom of which is a hollow or tubular part, D′, projecting upward. This part D′ has a ring, *a*, loosely placed therein, which is secured by the pivots *e*, so that the ring may oscillate upon the pivots. Through this ring *a* the shaft E extends, and a pivot, *i*, is inserted through both ring and shaft in a direction transversely to the pivots *e*, so that as thus secured to the shaft the basket B may be tilted in any direction, while the shaft remains in a vertical position. A circular plate, C, is located at the lower end of the shaft, with a central hole therein, in which is placed a piece, *l*, supported upon a spring, *m*, the latter resting upon a set-screw, *n*, which may be turned up or down from below; and the plate C is placed in a correspondingly-shaped opening in the floor *t*. A series of holes are made radially in the plate C, into each of which is inserted a spring, supporting a bolt, *h*, the outer end of which bears against the edge of the opening in the floor *t*. The wool or other material from which it is desired to extract the water being placed in the basket B, the shaft is set in rapid motion and is allowed to have a limited vibratory or oscillating motion by the elastic bearings of the plate C, in the center of which the shaft E has its bearing, the upper end of said shaft being attached to the driving-pulley by a universal joint to permit the vibratory movement of the lower end of the shaft. The centrifugal force of the basket causes its rotation to be in a horizontal plane, while its attachment to the shaft E, through the medium of the ring *a*, pivots *e*, and pivot *i*, permits the basket to vibrate with the shaft in a horizontal direction.

By this construction the machine will run with much less noise, and with far less wear and tear, and the basket can be rotated with a greater velocity than when attached in the ordinary manner, thereby performing the same amount of work in much less time.

What I claim as new is—

1. The combination of the basket B, constructed substantially as described, with the ring *a*, pivots *e*, pivot *i*, and shaft E, arranged substantially as herein set forth.

2. In combination with the basket B, the ring *a*, pivots *e* and *i*, shaft E, the foot-plate C, horizontal springs *h*, and springs *m*, and the universal joint, all arranged substantially as described.

CHARLES C. WEBBER.

Witnesses:
E. W. CHAPIN,
J. S. WEBBER.