

No. 173,392.

Fig. 1.

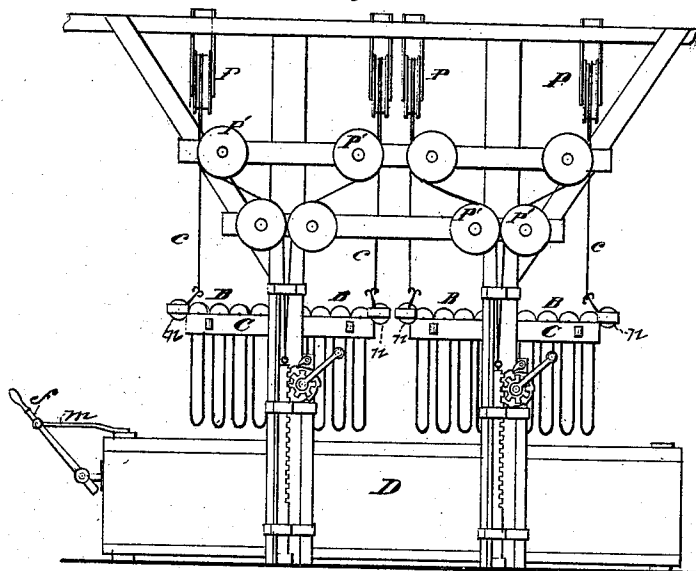


Fig. 2.

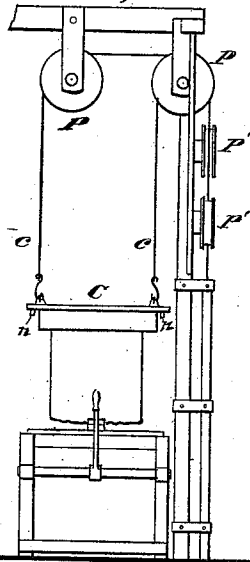
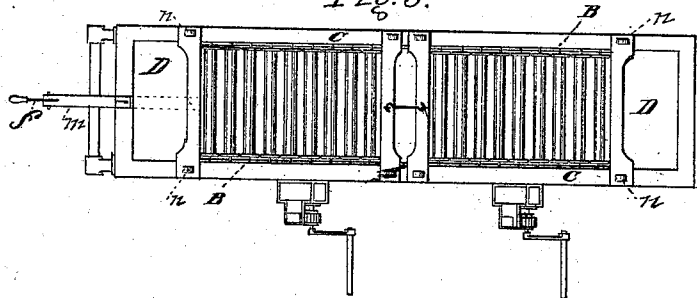


Fig. 3.



J. R. Platt
J. R. Bennett
Witnesses

Inventor _____

Cesar Corron

UNITED STATES PATENT OFFICE.

CÉSAR CORRON, OF ST. ETIENNE, FRANCE.

IMPROVEMENT IN DYEING APPARATUS.

Specification forming part of Letters Patent No. **173,392**, dated February 15, 1876; application filed January 19, 1876.

To all whom it may concern:

Be it known that I, CÉSAR CORRON, dyer, of St. Etienne, Loire, in the Republic of France, have invented a new and Improved Apparatus or Machinery for Dyeing Textile Matters which are spun and wound in skeins, of which the following is a specification:

My invention relates more particularly to improvements upon the apparatus for dyeing fibrous and textile materials patented by me August 6, 1872, No. 130,280, in which a rising and falling frame supporting rollers, over which are hung the skeins to be dyed, is moved back and forth from the dye-vessel to wringing-rolls by rack mechanism upon the end of the frame; and my improvements in this class of apparatus consist in suspending over the dyeing-vessel D a frame, C, for holding the skein-suspending rolls B by means of parallel and vertical ropes from its corners, which ropes are brought over the friction-rollers P upon the top of the scaffold, and from thence to and over the friction-rollers P' upon its side, to unite at a point where, by means of a rack, *c*, or its equivalent, they are moved at will to lower or raise the frame C; and it will be seen that the frame C will always maintain its horizontal position, and that no fixed guides being required the frame C can be raised to be isolated entirely from any surroundings, and with an entire absence of jar in its movement. The frame C is provided with four wheels, *n*, which, when the frame C rests upon the vat D, rest themselves upon the sill of the vat D, and enable the whole frame to move easily over the top of the vat. Hinged to the end of the vat D is the crank-lever *f*, which is united at will by the connection *m* to the frame C when resting upon the vat.

It will be seen, by the suspension of the

frame, it is free to be swung either by the crank-arm *f* to more thoroughly bring the dye-matter in contact with the fibers of the skeins upon the rolls B, or to be swung, when raised above the vat, to more quickly and thoroughly dry the skeins, and that the reciprocating and raising mechanism enable both to be done to facilitate the process of dyeing and drying.

By having an extended scaffold I am able to have one long vat, and divide it into as many baths as I have frames C, so that while the contiguous frames C may be raised and lowered simultaneously into several colors, or may be detached at will, one workman can impart the oscillations to all of the frames to either complete the dyeing of the skeins or their drying when raised above the vat.

To some fabrics I add a process of wringing to accelerate the drying, as follows: Arranged above the vat are a series of two or more pairs of cylinders, which, being separated wide enough to permit the skeins on one roll B to hang between them, are swung together from center below them, so as to force the fluid downward from the skeins. The position of the skeins upon rolls B is then changed to bring other portions under the influence of the swinging cylinders until all portions of them are squeezed dry.

I claim—

In combination with the vat D, having one or more compartments, the frame C, with their rolls B and wheels *n*, pulleys *p p'*, with their cords, and the reciprocating lever *f*, in the manner and for the purposes set forth.

CÉSAR CORRON.

Witnesses:

T. PIOT,
I. BONNET.