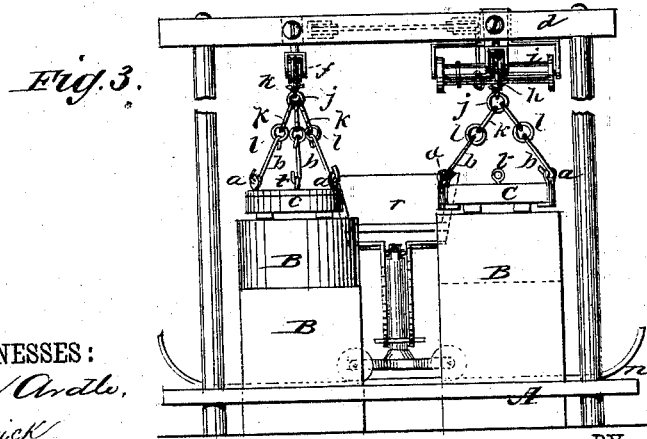
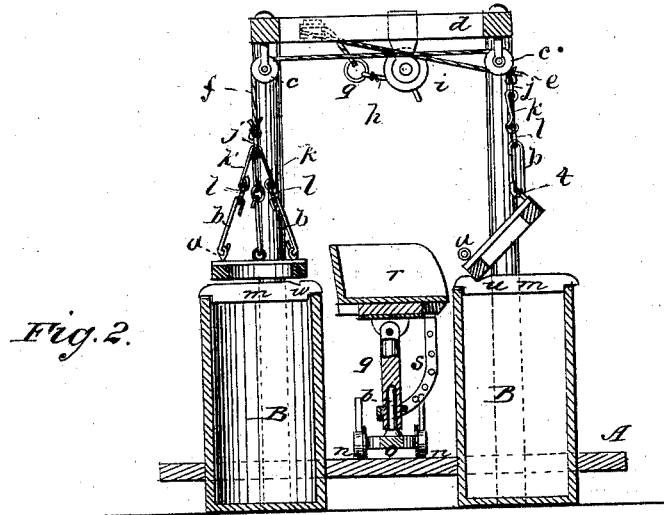
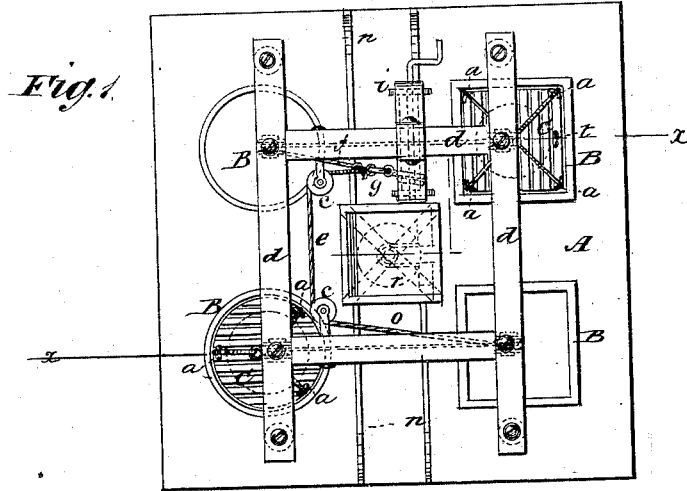


A. V. HYSORE.  
Dyeing Apparatus.

No. 205,272.

Patented June 25, 1878.



WITNESSES:  
*F. M. Arde,*  
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BY

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

ALPHENAS V. HYSORE, OF WILMINGTON, DELAWARE.

## IMPROVEMENT IN DYEING APPARATUS.

Specification forming part of Letters Patent No. 205,272, dated June 25, 1878; application filed May 20, 1878.

*To all whom it may concern:*

Be it known that I, ALPHENAS V. HYSORE, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and Improved Apparatus for Dyeing, of which the following is a specification:

Figure 1 is a plan view. Fig. 2 is a vertical transverse section taken on line *x x* in Fig. 1. Fig. 3 is a side elevation.

Similar letters of reference indicate corresponding parts.

My improvements relate to apparatus for manipulating stock in a dye-house, and for transferring it from one dye-vat to another.

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

Referring to the drawing, A is the floor of a dye-house, through holes in which are placed the vats B, which may be either round or square. These vats contain a false grated bottom, C, having three or more eyebolts, *a*, for receiving hooks formed on the rods *b*.

The material to be dyed is placed on the grated bottom C, and the rods *b* are allowed to stand vertically at the sides or corners of the vat.

In the upper part of the dye-house pulleys *c* are suspended from timbers *d*, and ropes *e f* run over them, and are connected by a ring, *g*, with a rope, *h*, that winds around a windlass, *i*, which, in the present case, is attached to the timbers *d*; but it may be placed in any convenient position. To the ends of the ropes *e f* are attached rings *j*, with which are connected rods *k*, having at their lower ends rings *l*. These rings are engaged by hooks formed on the upper ends of the rods *b* when it is desired to hoist the grated bottom and the stock supported by it from the vat.

When it is desired to shift the liquor in the vat, the grated bottom is raised and allowed to rest upon notched bars *m*, which are laid across the top of the vat.

To facilitate the transfer of the stock from

one vat to another, I provide a track, *n*, which runs between the vats, and fit to it a car, *o*, which carries a stud, *p*, to which is fitted a tubular standard, *q*, which supports the box *r*. This box is pivoted to the standard *q*, and is provided with a double curved bar, *s*, which straddles the standard *q*, and is apertured to receive a pin by which the box is held at any required inclination. One side of the box *r* is open, so that the stock may be readily introduced into or removed from it.

To dump the contents of the grated bottom into the box *r*, all of the rods *b* are removed from the eyebolts *a* in the bottom, and one of them is hooked into an eyebolt, *t*, in the side of the grated bottom which is farthest from the track *n*. The car *o* is now moved so as to bring the box *r* in front of the vat to be discharged, and the windlass is turned so as to raise one side of the grated bottom and dump the stock into the box *r*. The grated bottom is prevented from slipping by a notch, *u*, in the bars *m*.

If the stock is to receive further treatment in another vat, the car *o* is moved along to a vat which is lower than the one from which the stock was taken. It is then dumped into the said vat by tipping the box.

When the grated bottom is placed in the vat it is pressed downward by a jack operated by a hand-lever.

By means of my improvement the operation of dyeing is facilitated and cheapened.

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

In an apparatus for dyeing, the combination, with hoisting mechanism, of vat or vats B, provided with notched bars *m*, and grated bottom C, having eyebolts *a*, substantially as shown and described.

ALPHENAS VELIVIOUS HYSORE.

Witnesses:

WILLIAM A. CROSS,  
CHARLES E. CANNON.