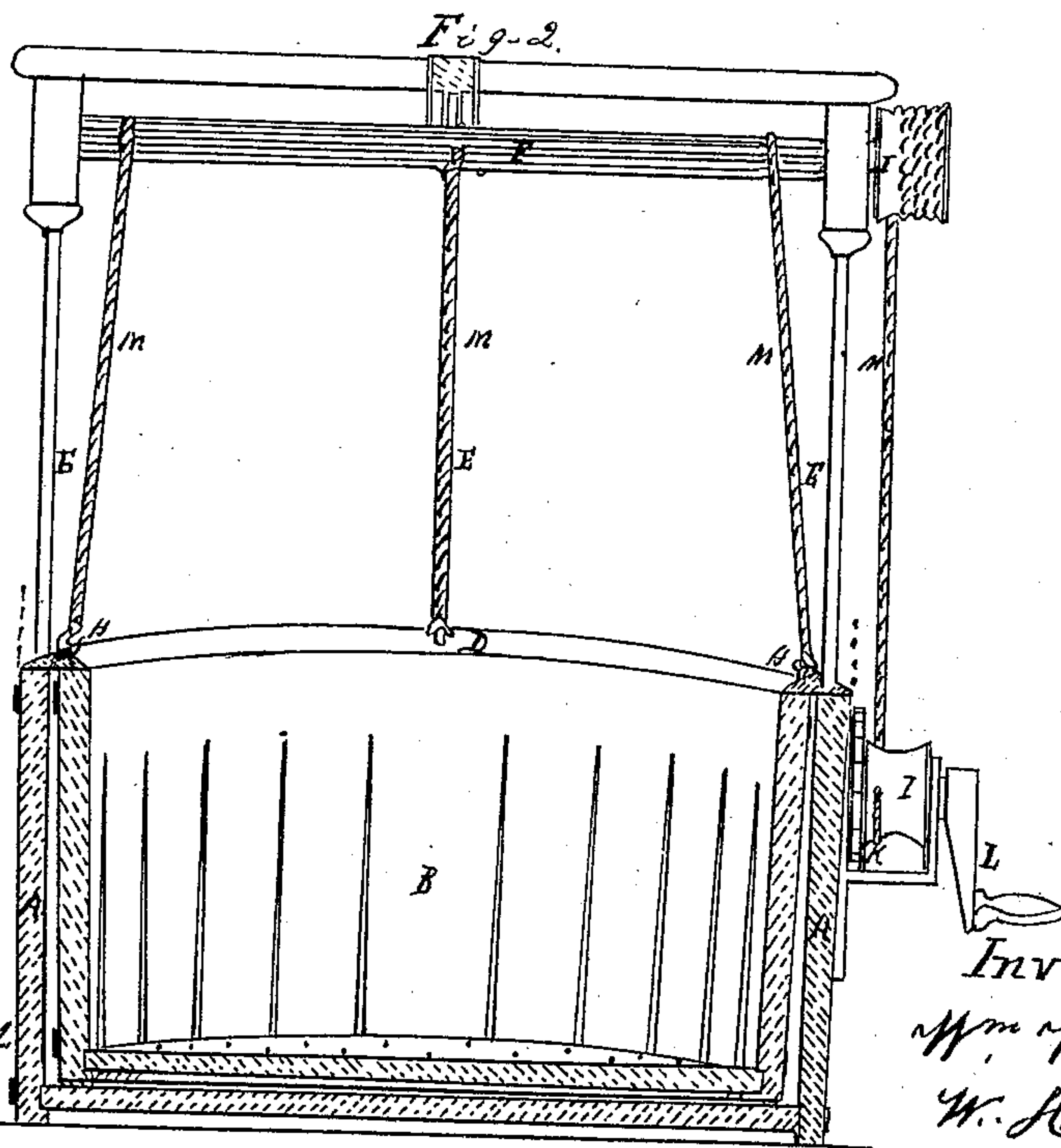
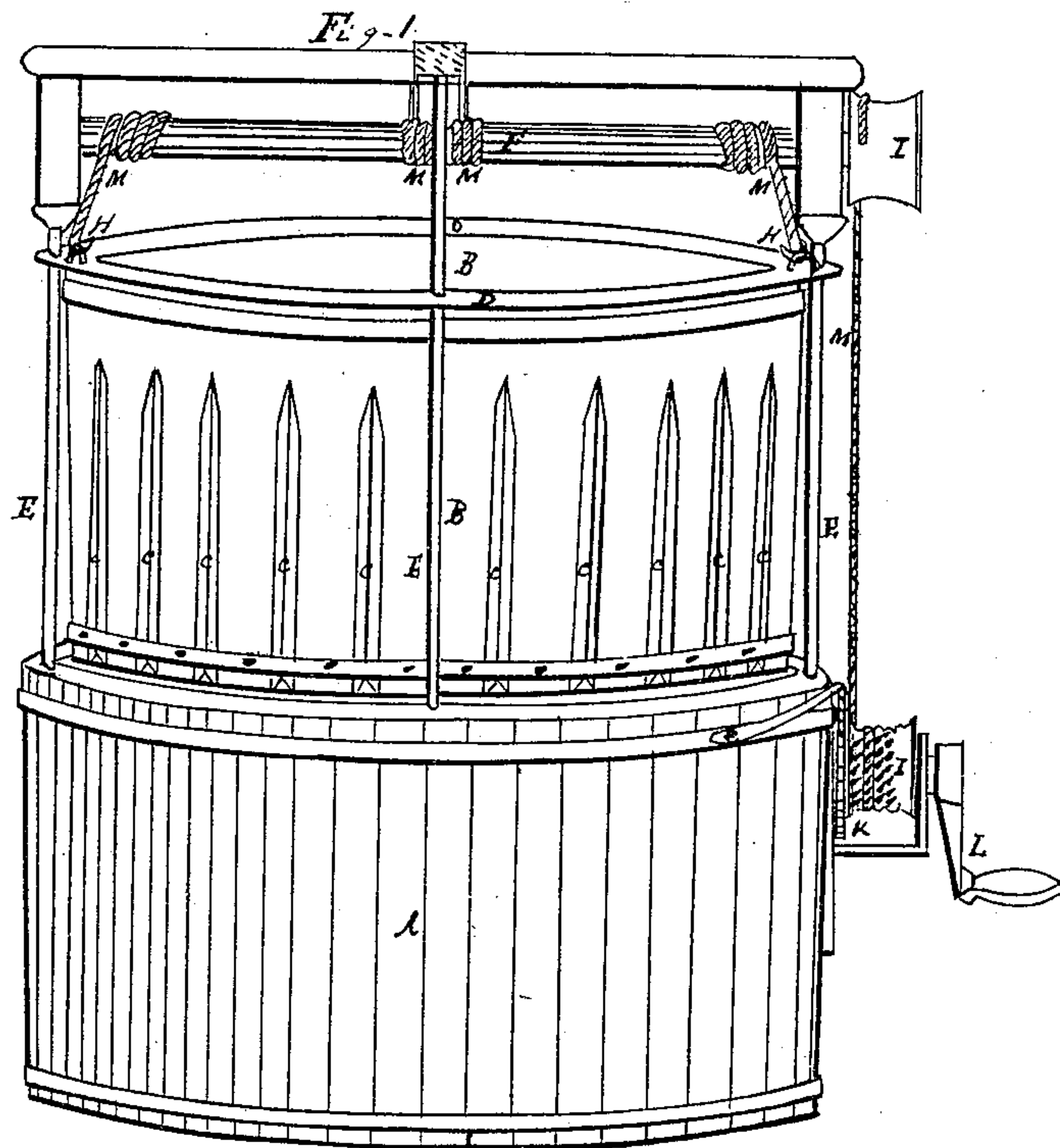


W. VINE & W. H. JUBB.
DYER'S VAT.

No. 75,081.

Patented Mar. 3, 1868.



Witnesses.

Joseph F. Foote.
Joseph L. Shepherd.

Inventors.

Wm. Vine.
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United States Patent Office.

WILLIAM VINE AND WILLIAM H. JUBB, OF NORWALK, CONNECTICUT.

Letters Patent No. 75,081, dated March 8, 1868.

IMPROVEMENT IN DYERS' VATS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, WILLIAM VINE and WILLIAM H. JUBB, both of the town of Norwalk, county of Fairfield, and State of Connecticut, have invented new and useful Improvements in the Mode of Constructing Dyers' Vats; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of our invention consists in the construction and arrangement of a double vat, with attachments for lifting up the inner vat.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same. The drawing—

Figure 1, is a sectional view of the double vat, showing the same when in use with the dye-stuff in.

Figure 2, a view of the same when the inner vat and contents are raised up to drain off the liquid dye into the lower or main vat, to be used again.

We construct the outer or main vat, A, in the usual manner. The inner vat, B, we construct of staves and hoops, of the same description as the outer vat A. In the side we make bevelled vertical openings, C, or their equivalents, at the necessary distance apart for the liquid dye to pass through and run down into the outer vat A when the vat is lifted up, as shown in fig. 2. The bottom is also perforated with holes for the same purpose. We also make an opening in the side for the convenience of taking out the dyed wool or other article when drained.

On the top edge of the inner vat B is a wide, rounded rim, D, which covers the edges of both the vats when down, making in appearance one vat, so that there is no obstruction to the stirring, working, or mixing the dye-stuff and materials.

The arrangements for hoisting up the inner vat B are as follows: We place four uprights, E, to support the rollers, pulleys, &c., for hoisting and guiding the same. The roller F extends across the whole length, for the ropes or chains M to revolve on, with hooks and eyes H attached to the rim D of the inner vat. On the outside of the outer vat is the arrangement for hoisting, being a roller, I, with ratchet and pawl K, crank L. There are other equivalent devices which we can use in some cases for hoisting, such as taking away the upright, E, and using a pulley overhead, &c., but it will not interfere with our principle. The inner vat B may in some cases be composed of open wire or basket-work, as an equivalent for wood, and the other arrangements remain the same.

The utility of our invention is as follows: In dyeing wool or other fibrous material in large quantities, the use of the single vat is sometimes of great inconvenience and loss, both in dyeing-materials and labor. In taking out the wool or other article from the hot boiling dye-liquor, in small portions at a time, which we are obliged to do in most cases when it has been in just the required length of time, the portion left to the last will in some cases receive a different hue from that taken out first, which is, in delicate colors, of great and injurious importance. In our improvement the whole mass is hoisted out instantly, and is drained and cooled without any trouble, securing to a certainty an evenness of color. The saving of the liquid hot dye, in the single vat has to be drawn off by a pipe and faucet, or some similar device, thus wasting the dye-liquor, which in most cases is a very costly article. Mixing and preparing another quantity of cold dyeing-liquid of the same color is attended with great expense in labor and fuel to bring it up to a boiling-point again.

In dyeing with mixed or aniline or compound colors, the liquid of the first process is retained in vat A for any length of time to receive other coloring-matter, to be added as the case may require, and then the vat B and contents can be lowered instantly, or at any time required; in blue-vats, the change required is instantaneous to secure perfect evenness of color.

What we claim as our invention, and desire to secure by Letters Patent, is—

The arrangement of the double vat A and B with hoisting-attachments, in the manner substantially as herein set forth and for the purpose described.

Norwalk, Conn., September 14, 1867.

WM. VINE,
W. H. JUBB.

Witnesses:

JOSEPH F. FOOTE,
JOSEPH SHEPHERD.