

(No Model.)

T. A. HARRIS.
VAT FOR DYERS' USE.

No. 513,321.

Patented Jan. 23, 1894.

FIG. 1.

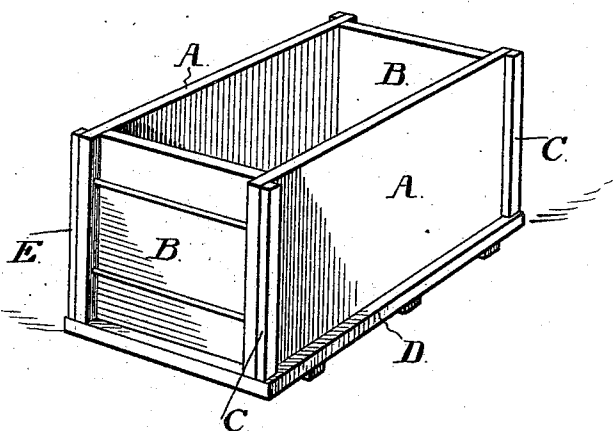


FIG. 2.

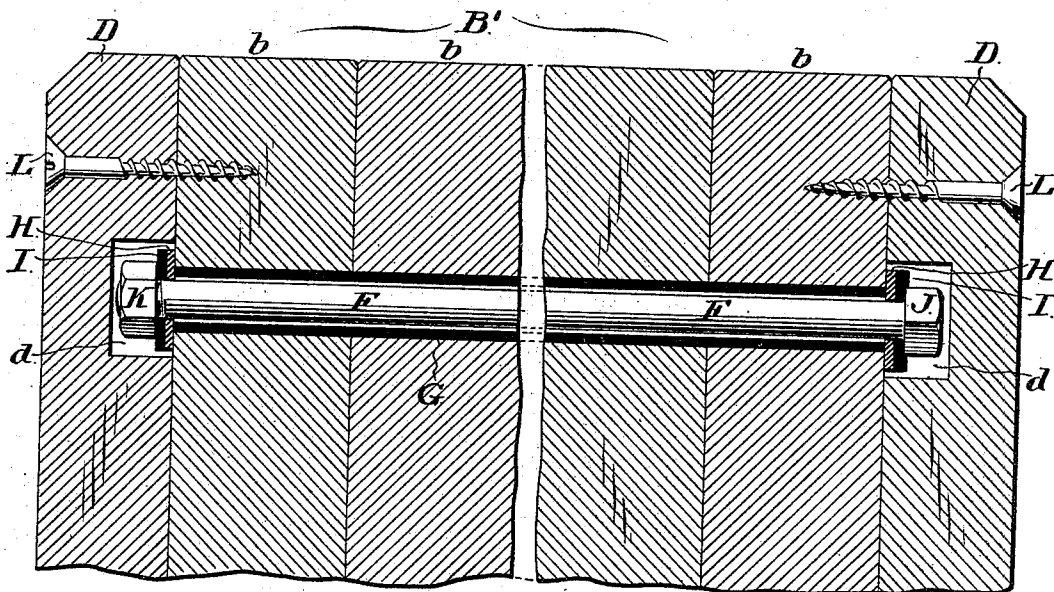
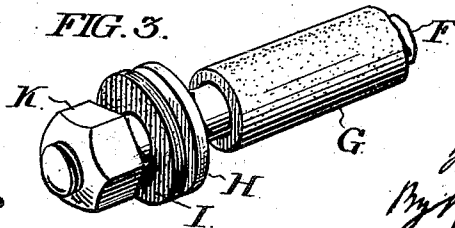


FIG. 3.



WITNESSES:
James H. Bell
A. E. Paige

INVENTOR:
Thomas A. Harris
By Hollingsworth & May
Attorneys

UNITED STATES PATENT OFFICE.

THOMAS A. HARRIS, OF PHILADELPHIA, PENNSYLVANIA.

VAT FOR DYERS' USE.

SPECIFICATION forming part of Letters Patent No. 513,321, dated January 23, 1894.

Application filed June 13, 1893. Serial No. 477,617. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. HARRIS, of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Vats for Dyers' Use, whereof the following is a specification, reference being had to the accompanying drawings.

These vats are ordinarily constructed of strips of planking, clamped together by means of iron rods, which run entirely across from side to side, (sometimes being embedded in the wood, at others placed on the outside,) said rods being provided with heads and screw nuts at their respective ends. Owing to the exceedingly penetrating and corrosive character of the dye-liquor, it is found that in use rods soon become eaten away and require replacing. Attempts have been made to remedy this difficulty by using bronze, or other metal which resists corrosion, but this is attended with so much expense as to be practically prohibitory.

My invention is addressed toward remedying the difficulties attendant upon the use of iron rods without substantial increase of cost.

In the drawings Figure 1 represents a perspective view of an entire vat. Fig. 2 is a vertical longitudinal section through a vat bottom, on an enlarged scale, and Fig. 3 is a view of the end of the rod with its protecting device.

The sides of the vat are represented at A, the ends at B, and the transverse bolts by F.

In the form of construction shown in the sectional view of Fig. 2, it will be seen that the bottom, B', is composed of a series of strips, b, which are held or clamped together by means of the rod, F. This rod is of iron inclosed in a tubular casing, G, of lead, ordinary lead pipe being well adapted to this purpose. The ends of the lead casing are sub-

stantially flush with the edges of the wood, although it may be desirable that they should project to a very slight extent. Each rod has a head, J, at one end and a nut, K, at the other, and at each end, between the head and nut, respectively, and the proximate surfaces of the wood, are arranged washers, H, I, the former of wood, the latter of lead. When the nut is screwed up so as to clamp the strips in position, the washers, H, I, as well as the metal at the ends of the casing, G, are compressed somewhat, so as to form an absolutely close joint and prevent the access of liquor to the metal of the rod. Wooden strips, D, provided with recesses, d, adapted to receive the heads and nuts of the rods F, are clamped along the edges of the wood by means of screws, L. These strips of course project beyond the sides, as indicated in Fig. 1. The ends, B, are preferably provided with similarly projecting strips, E and C, respectively.

I have found that by use of the above mentioned device a practically perfect protection is afforded for the rod, at an inconsiderable cost, since the lead casing is not attacked by the liquid to any substantial extent.

In my claim I use the word wall to indicate either the side, end or bottom, as the case may be, since the arrangement of the rods may be varied to suit the construction.

Having thus described my invention, I claim—

In a vat, having a wall composed of a series of wooden strips, the combination with said wall of a series of clamping rods; and lead casings enveloping said rods, substantially as set forth.

THOMAS A. HARRIS.

Witnesses:

HENRY N. PAUL, Jr.,
JAMES H. BELL.