

No. 626,048.

Patented May 30, 1899.

B. P. BRADFORD.  
TANNING VAT.

(Application filed June 14, 1898.)

(No Model.)

Fig. 1.

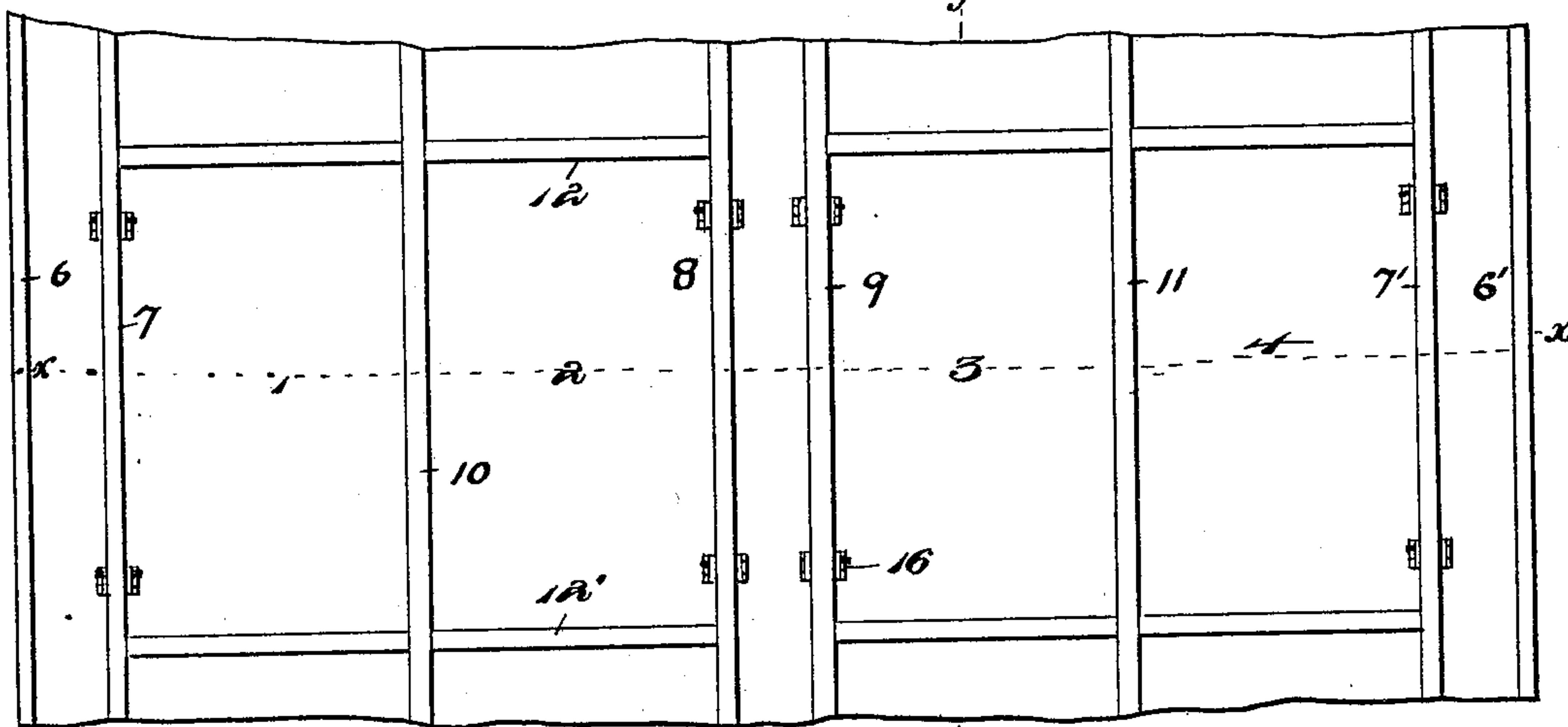


Fig. 2.

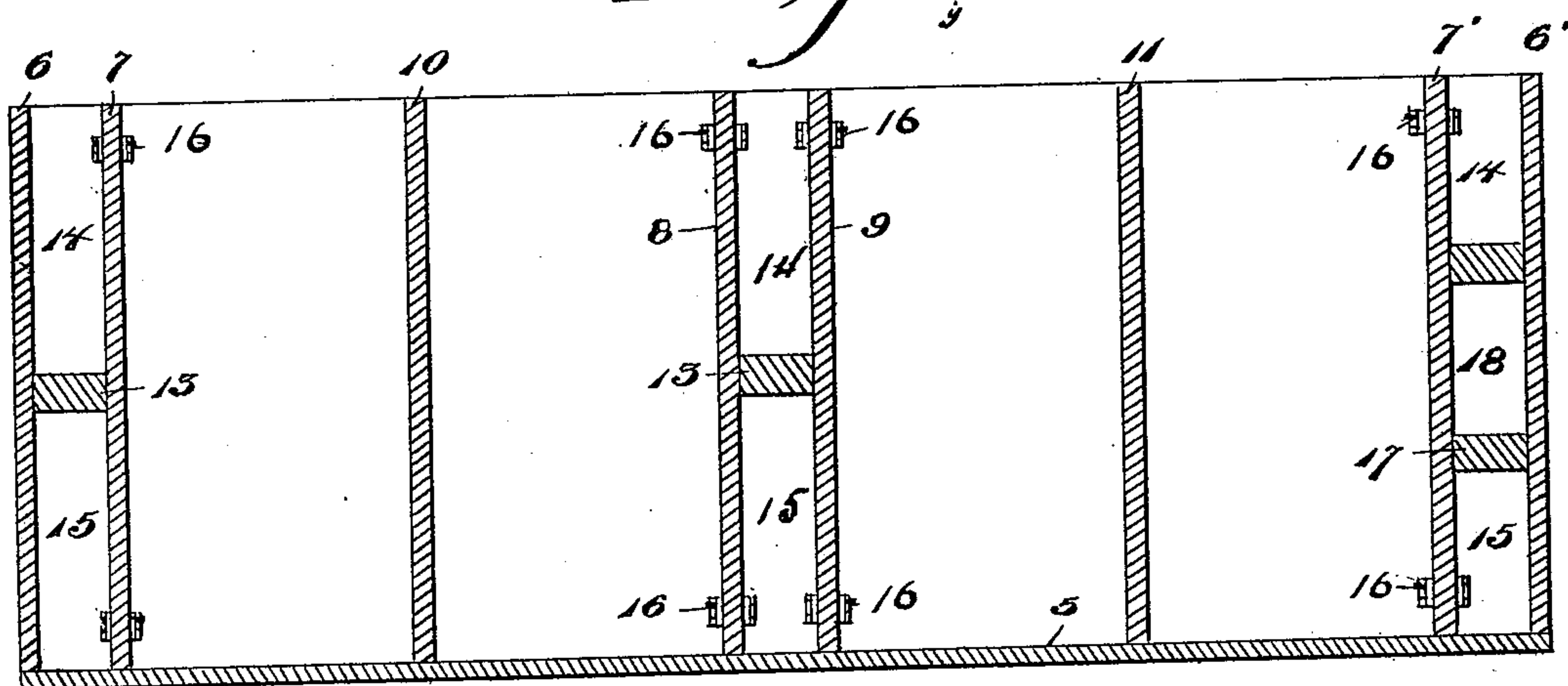
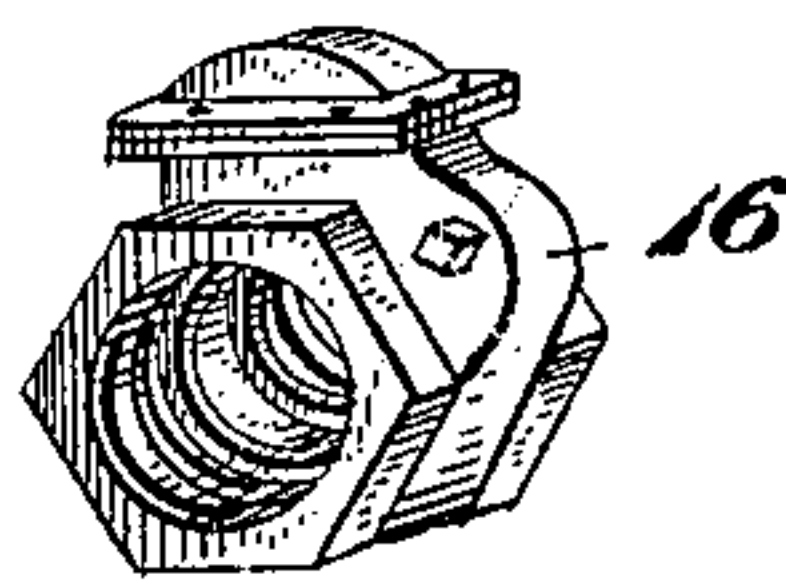


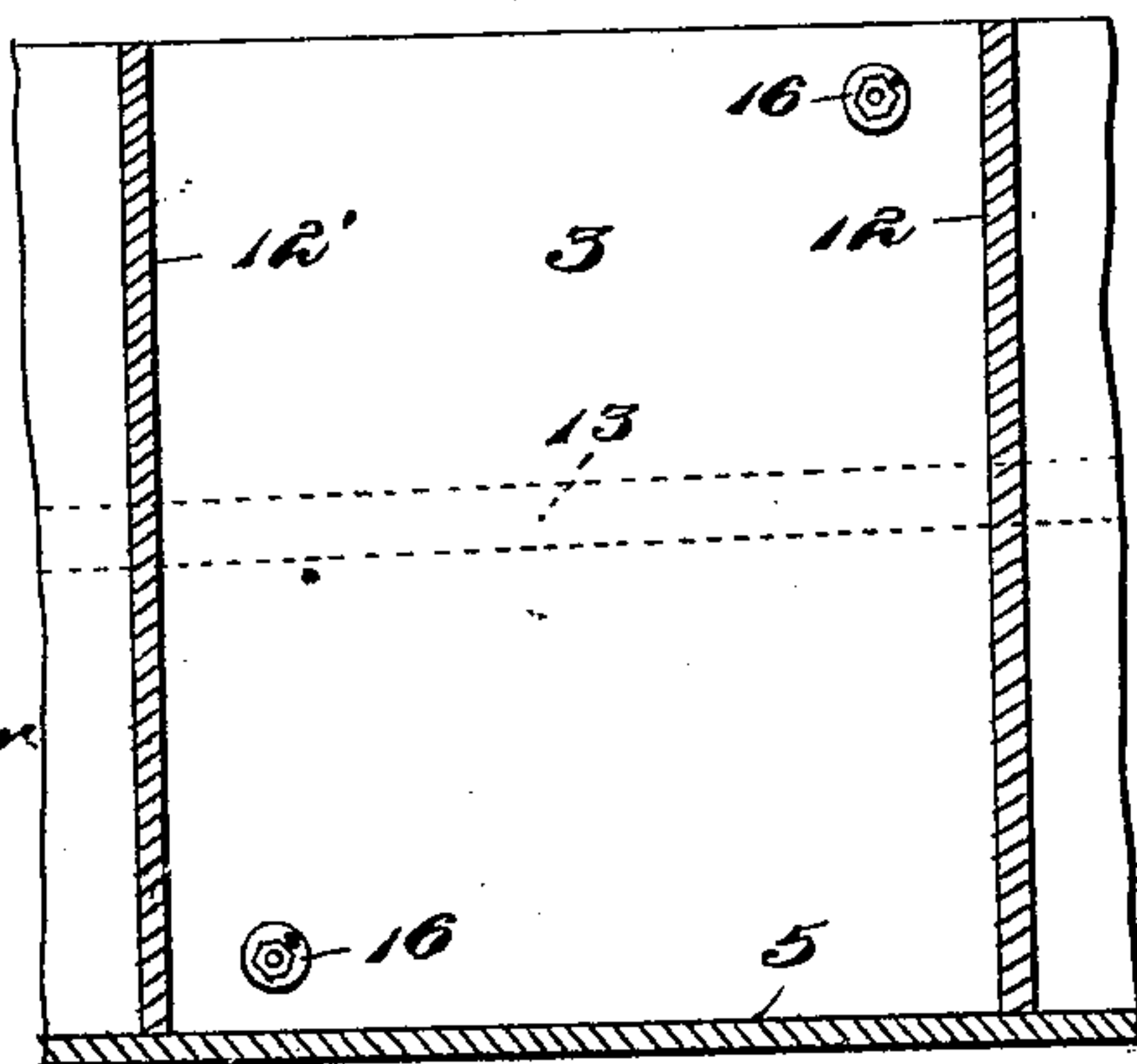
Fig. 3.

Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

BENJAMIN P. BRADFORD, OF PITTSBURG, PENNSYLVANIA.

## TANNING-VAT.

SPECIFICATION forming part of Letters Patent No. 626,048, dated May 30, 1899.

Application filed June 14, 1898. Serial No. 683,396. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN P. BRADFORD, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Leather-Tanning Vats, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in tan-vats.

This invention is an improvement on the patent granted to me October 4, 1892, No. 483,724, in which I have found that the addition thereto of an inlet-trough for the tanning liquor formed in the frame of the vat beneath the exhaust-trough would give a more satisfactory result.

My invention consists in constructing inlet and exhaust troughs in the framework of the vat and communicating with the interior of the vat and which conduct the tanning liquor to and exhaust the overflow from the vat.

My invention further consists in the novel combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings, and particularly pointed out in the claim.

In the drawings, Figure 1 is a top plan view of a vat arranged in accordance with my invention. Fig. 2 is a longitudinal sectional view thereof on the line  $x x$ , Fig. 1. Fig. 3 is a vertical sectional view of one of the vats on the line  $y y$ , Fig. 1. Fig. 4 is a perspective view of a two-way valve of the ordinary construction.

Like numerals of reference indicate corresponding parts throughout the several views of the drawings.

In practice I construct my vat formed of a series of compartments 1, 2, 3, and 4, in which are placed the hides or skins to be tanned. The tanning-compartments are formed by a bottom or floor 5, which has secured on each side thereof the vertical walls 6 6' and 7 7'. These walls being suitably spaced apart, vertical partitions 8 9, which are also suitably spaced apart, are secured to the bottom near the center thereof. There is also provided a pair of division-partitions 10 11, which are also secured to the bottom between the wall

7 and the partition 8 and the wall 7' and partition 9. The vat is also provided with a pair of ends 12 12'. Arranged between the walls 6 7 and 6' 7' and the partitions 8 and 9 in the desired manner is a division-plank 13, thereby forming an inlet or supply trough 14 and an exhaust-trough 15. These troughs do not extend around the vat—simply in one direction, as shown.

The inlet or supply trough for the tanning liquor is connected to a suitable supply-tank and forcing mechanism, (not shown), and the exhaust-trough is also connected to a receptacle to receive the overflow or exhaust liquor from the compartments.

16 indicates two-way valves of any suitable construction to allow of the ingress and egress of the tanning liquor to the several and from the several compartments. The valves are operated by any suitable wrench. When a series of vats are arranged in the tannery adjacent to the hereinbefore-mentioned series and it is desired to convey tanning liquor thereto, I arrange between the walls 6' 7' an additional supply-trough 18, which is formed by securing between the walls 6' 7' the divisional plank or partition 17. This supply-trough is only used when the tanning liquor is contained in one supply-tank, and suitable means (not shown) may be provided for connecting the end of the supply-trough to the adjacent series of vats.

The division-planks forming the bottom for the exhaust-trough are somewhat inclined to allow a ready flow or discharge of the tanning material as it overflows from the vats.

The operation of my improved vat is as follows: The supply-trough is connected to a suitable supply-tank, and when the two-way valves 16 are opened, the tanning liquor enters the valves through one port and is discharged through the other port thereof into the tanning-compartments, and, as it reaches the upper two-way valves, is discharged through the latter into the exhaust-trough which is connected to a suitable receptacle to receive this overflow of the liquor.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.



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

5 A tan-vat having side and end walls, inner side walls suitably spaced from the said walls proper, partitions dividing said vat into a series of compartments, partitions 8, 9, suitably spaced apart forming sides for a pair of compartments, a supply-trough for the tan-  
10 ning material arranged between the partitions 8, 9, and an exhaust-trough for dis-

charging the tanning liquor from the several compartments arranged between the side and inner side walls and the partitions 8, 9, substantially as set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

BENJAMIN P. BRADFORD.

Witnesses:

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