(No Model.)

A. A. MYERS.

LIME VAT AGITATOR.

No. 386,488. Patented July 24, 1888.

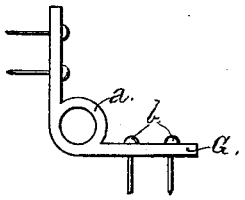

Fig. 4.

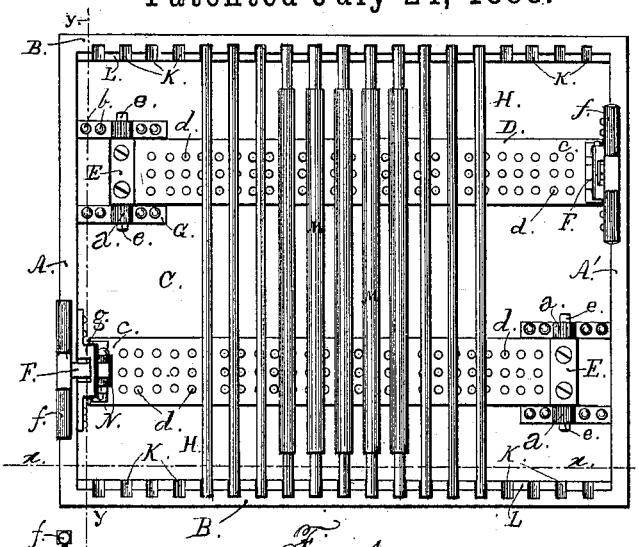

Fig. 1.

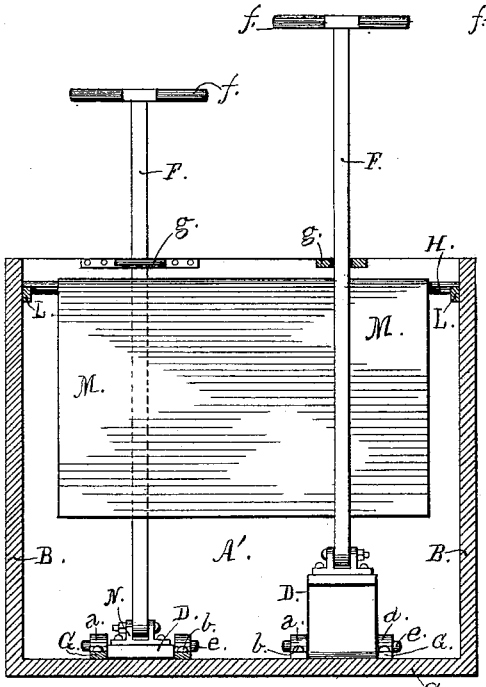

Fig. 3.

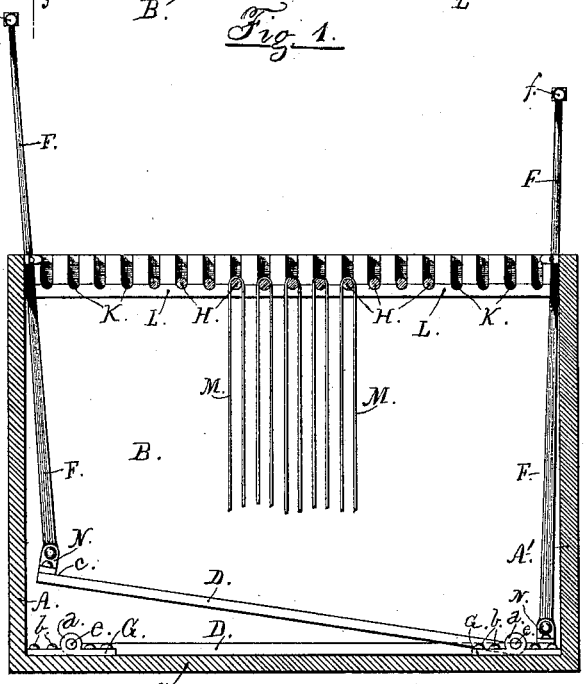

Fig. 2.

Witnesses.
Dan'l H. Herr.
Geo. A. Law.

Inventor,
A. A. Myers.
By his Attorney
Wm. R. Gerhart

UNITED STATES PATENT OFFICE.

ABRAHAM A. MYERS, OF LANCASTER, PENNSYLVANIA.

LIME-VAT AGITATOR.

SPECIFICATION forming part of Letters Patent No. 386,488, dated July 24, 1888.

Application filed February 16, 1888. Serial No. 264,292. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM A. MYERS, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Lime-Vat Agitators, of which the following is a specification.

My invention relates to improvements in agitators for lime-vats used by tanners; and the objects of my improvements are, first, to prevent the lime from settling to the bottom of the vat and keep it mixed with the liquid therein, and, second, to cause constant motion of the mixture through the hides hanging in the vat; and it consists in the construction and combination of the various parts, hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of the vat; Fig. 2, a longitudinal vertical section on the line *x x* of Fig. 1; Fig. 3, a transverse vertical section on the line *y y*; and Fig. 4 a side view of a different arrangement of the agitator-hinges.

Similar letters indicate corresponding parts throughout the several views.

In the drawings, A A′ indicate the ends of the vat, B the sides, and C the bottom.

D D are the agitating-planks extending lengthwise of the vat. An end of each plank is hinged to the bottom C, but the hinged end of each is opposite the free end of the other, and each plank has a series of holes, *d*, bored through it. The hinges are composed of cross-pieces E, having spindles *e*, which rest in the bearings *a*, secured to the bottom C of the vat by screws or bolts *b* passing through the arms G.

Fig. 4 illustrates another arrangement of the hinge. In this case one of the arms of the hinge is fastened to the floor of the vat and the other to the end thereof. By this means the hinged ends of the agitators are brought closest to the ends of the vat.

Each agitator is so connected with its hinge that its whole length will rest upon the bottom C when it is not in motion.

The agitating-rods F, having the handles *f*, are hinged to the working end *c* of the plank and pass up through the guide-blocks *g*, located at the upper edges of the ends of the vat.

In operating, the free ends of the plank are worked up and down by the rods. These movements not only produce lateral motion of the lime and water, but cause them to be squeezed and sucked through the openings *d* with great force, causing numerous currents to agitate the whole mixture in the vat and to pass about the hides hanging therein. Much strength is added to the currents passing through the openings *d* by having the whole under surface of the agitating-plank forced down upon the bottom of the vat, thus drawing and pushing the settling lime from the bottom and keeping it thoroughly mixed with the water. The hides M are hung in the vat over slats H. These slats rest in sockets K let into the upper edges of the sides of the vat; and in order to give greater bearing to the ends there are strips L fastened to the sides of the vat, having their upper edges flush with the bottom of the sockets.

I am well aware that there are agitators in use in which the planks constituting the same are supported by pivots and operated vertically; but in none of these is the full surface of the agitator brought down upon the bottom of the vat throughout the length thereof. I therefore do not broadly claim a vertically-operating agitator; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a vat, of the agitator herein described, hinged by one end to the bottom thereof, so that in operating the downward movement of said agitator may bring its entire under surface into contact with the bottom of the vat, and means for operating said agitator, substantially as and for the purpose specified.

2. The combination, with a vat, of the agitator herein described, having one end hinged therein, so that in operating the same the entire under surface may be brought in contact with the bottom of the vat, and devices for operating said agitator, substantially as and for the purpose specified.

3. The combination, with a vat, of the agitator herein described, hinged by one end in said vat, and provided with a series of perforations, and means for operating said agitator, substantially as and for the purpose specified.

A. A. MYERS.

Witnesses:
A. K. SPURRIER,
WM. R. GERHART.