

L. Angster,

Brewers Refrigerator.

No. 97,264.

Patented Nov. 30. 1869.

Fig. 1

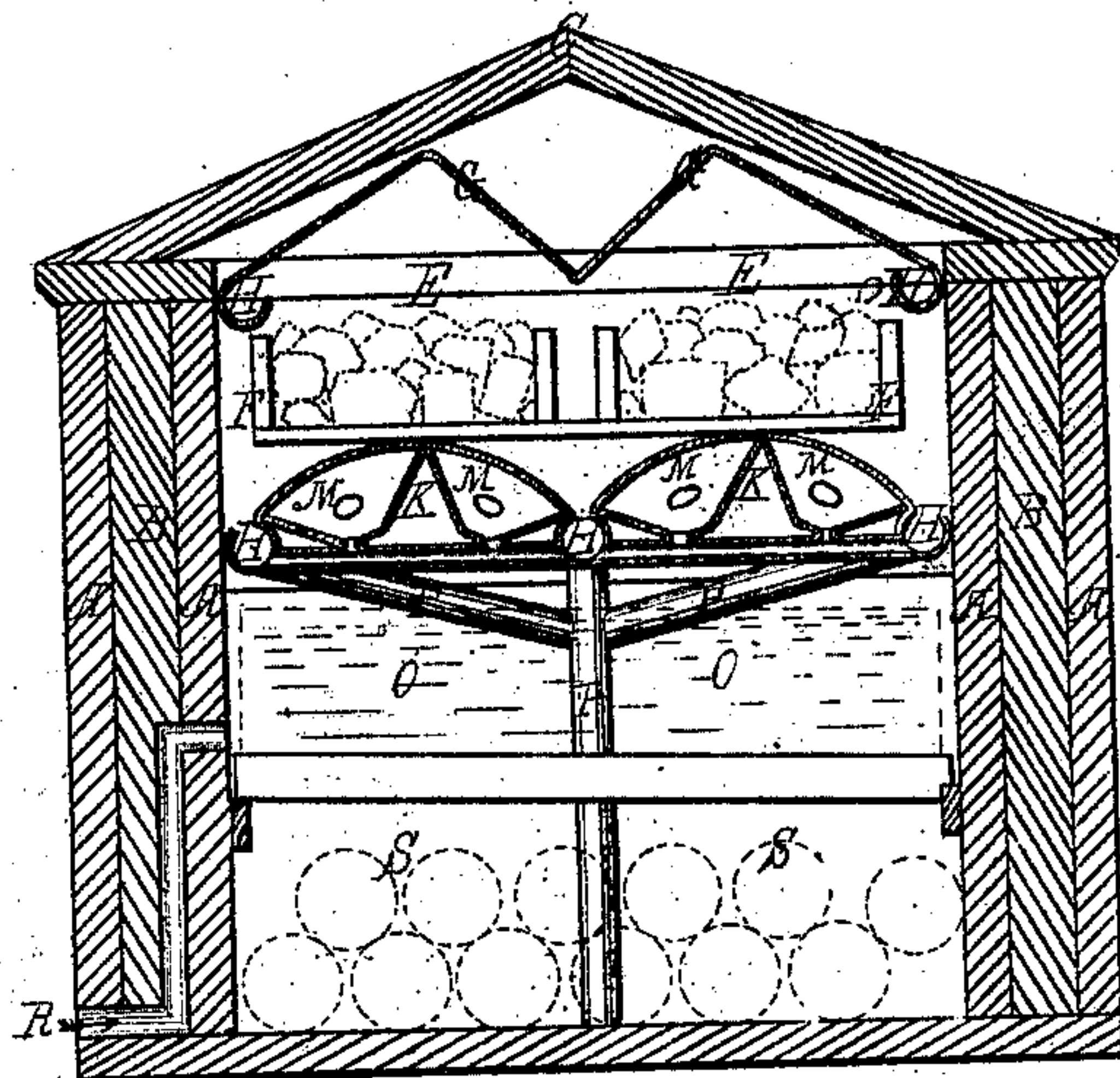


Fig. 2

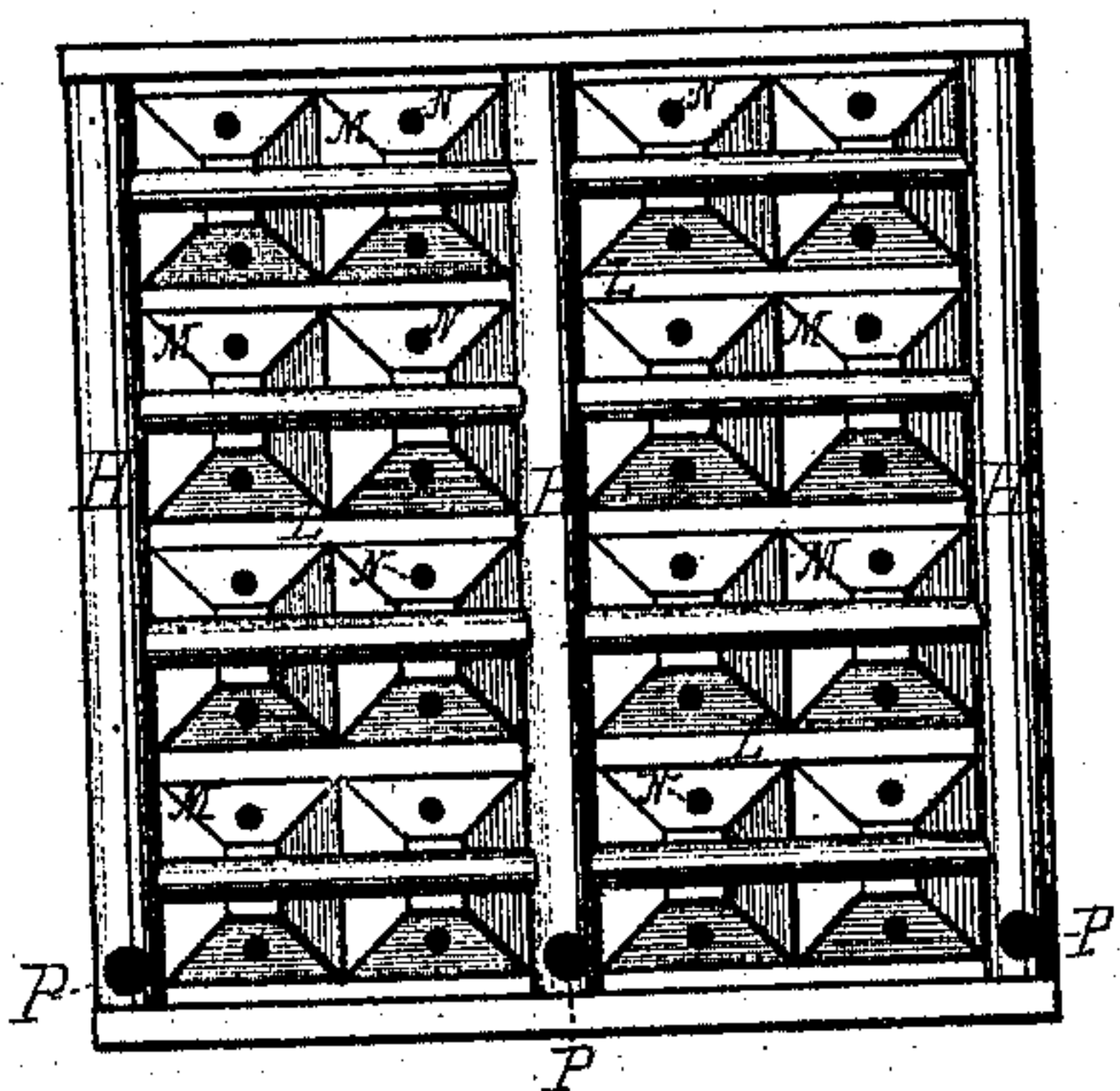
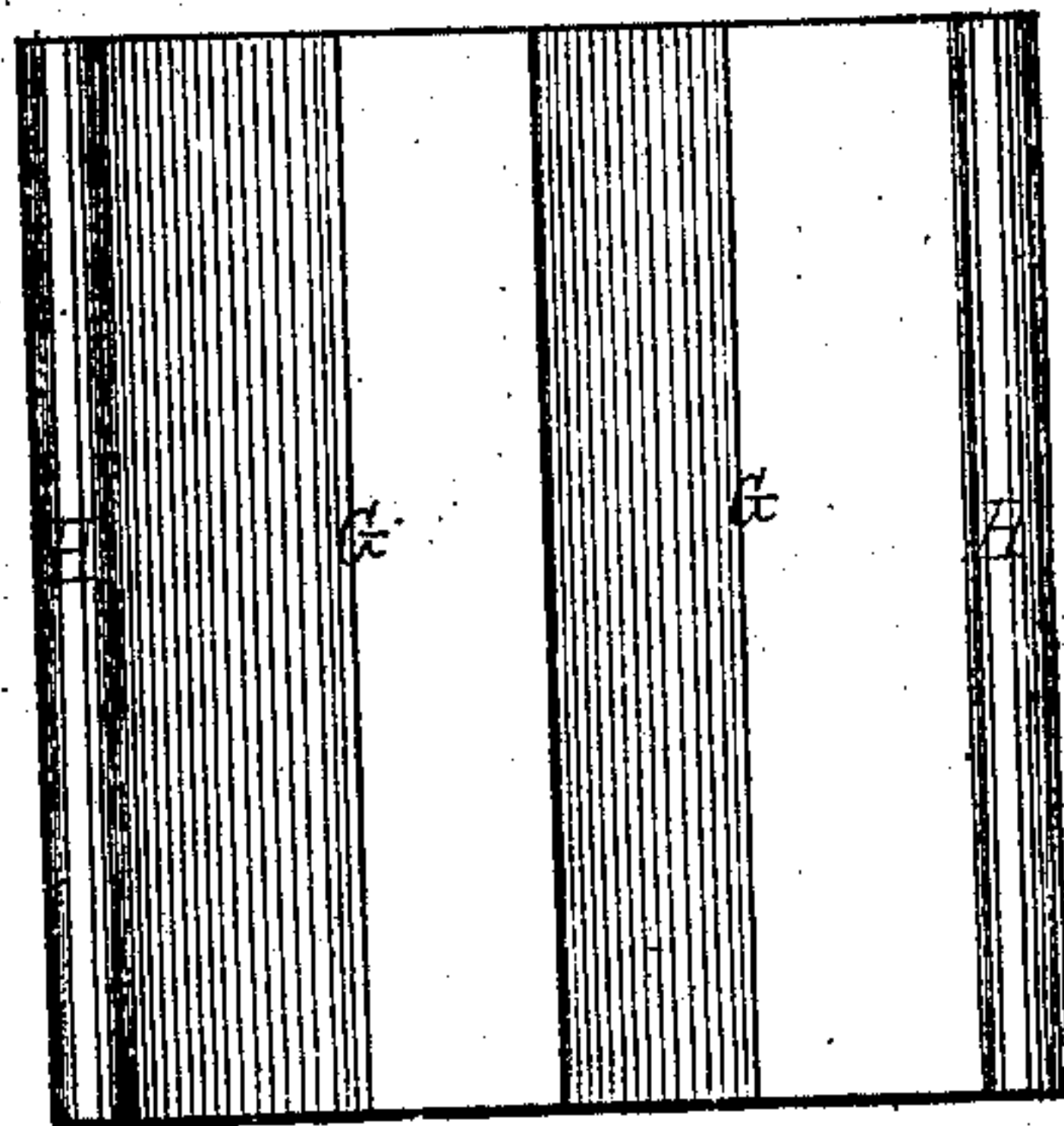


Fig. 3



Witnesses

Arthur O'Neill

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LAWRENCE ANGSTER, OF NEWARK, NEW JERSEY.

Letters Patent No. 97,264, dated November 30, 1869.

IMPROVED REFRIGERATOR FOR CONDENSING VAPORS FROM FERMENTING-VATS IN BREWERIES.

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

To all whom it may concern:

Be it known that I, LAWRENCE ANGSTER, of the city of Newark, county of Essex, and State of New Jersey, have invented a new and useful Improvement in Brewers' Refrigerators, of which the following is a specification.

The nature of my invention consists in constructing a brewers' refrigerator, in such manner that when the boiled wort and hops are put together into tuns or vats for the purpose of fermentation, the volatile gases arising from the same will be permitted to escape, while the lupuline, or flavoring-property of the hops, shall be retained in the fermenting beer, which result I accomplish by placing immediately over the tuns or vats containing the fermenting beer, an ice-chamber, against which the gases impinge, and, being thereby condensed, are carried off, together with the melting ice, outside of the refrigerator, and a constant supply of fresh air admitted to the fermentation-chamber, as I will further explain by reference to the drawings, in which—

Figure 1 represents a sectional elevation of my brewers' refrigerator, showing the beer-vault, fermentation-chamber, and ice-chamber;

Figure 2 is a view showing the under side of ice-chamber, which is employed as a condenser to the vat-chamber; and

Figure 3, a view, showing the inside of roof or condenser of ice-chamber.

In the said drawings—

A A indicate the double walls of the refrigerator,

the intervening spaces, B, being filled in with charcoal, shavings, or other non-conductor of heat, and C is the roof.

E is the ice-chamber, containing a rack, F, on which the ice is placed, said rack being surmounted by a condenser, G, for condensing the vapor arising from the ice, and conducting the same into the gutters H H, from which the melted ice is conducted by pipes outside the refrigerator.

K is another condenser, which forms the floor of the ice-chamber, the under side or ceiling, L, of this floor (see fig. 2) being provided with hollow panels M M, &c., having apertures N, against which the volatile gases arising from the fermenting beer (placed in vats in the chamber O) impinge, and, being condensed, are conducted in the pipes P P outside of the refrigerator, for future use.

R is the fresh-air conductor, for supplying the vat-chamber with fresh air, and

S is the vault, containing barrels, into which the beer, after fermentation, is run.

What I claim, is—

A brewers' refrigerator, provided with ice and fermentation-chambers E O, condensers G K, pipes P P R, and vault S, constructed, arranged, and operating substantially as described and set forth.

In testimony whereof, I have hereunto set my signature, this 8th day of October, A. D. 1869.

Witnesses: LAWRENCE ANGSTER.

ARTHUR NEILL,
ARTHUR B. WILLIAMS.