

E. B. ENGLISH.

RECEPTACLE FOR STORING LIME.

No. 172,105.

Patented Jan. 11, 1876.

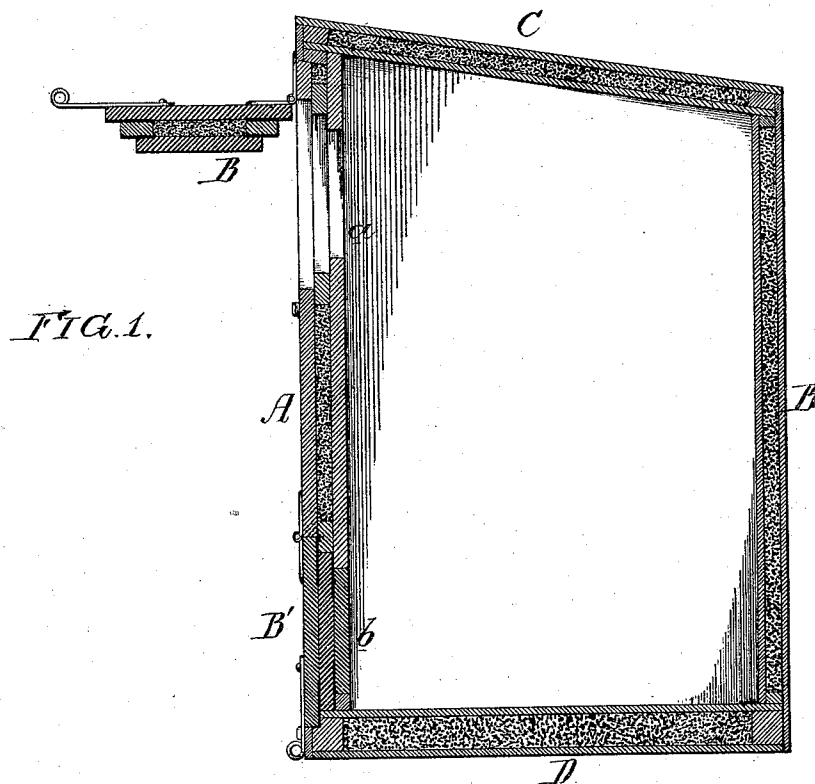
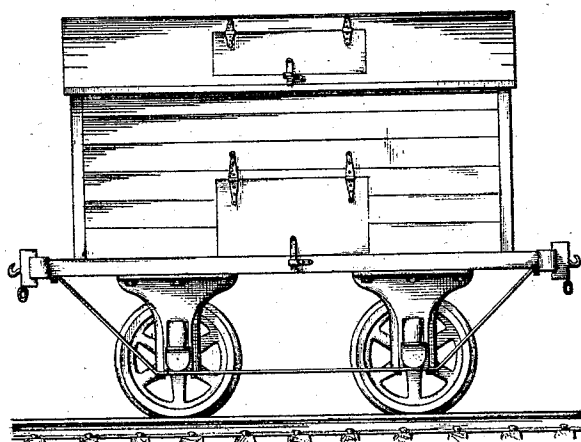


FIG. 2.



Witnesses, *Harry Smith*
Thomas McLean

Edward B. English
by his Attorneys
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UNITED STATES PATENT OFFICE.

EDWARD B. ENGLISH, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN RECEPTACLES FOR STORING LIME.

Specification forming part of Letters Patent No. **172,105**, dated January 11, 1876; application filed November 22, 1875.

To all whom it may concern:

Be it known that I, EDWARD B. ENGLISH, of Philadelphia, Pennsylvania, have invented an Improvement in Receptacles for Storing Lime, of which the following is a specification:

My invention is based on the mode of protecting unslaked lime for which Letters Patent No. 118,680 were granted to Henry Bisbing, September 5, 1871; and the object of my invention is to construct a bin or receptacle which affords better facilities for storing and removing the lime than the apparatus described in the said patent.

In the accompanying drawing, Figure 1 is a vertical section of my improved lime-bin, and Fig. 2 a view illustrating my invention as applied to a railroad-car.

The apparatus described in the patent of Bisbing consists of a box or receptacle with double walls, having intervening spaces packed with plaster-of-paris or other equivalent material, for absorbing the moisture of the atmosphere, and preventing it from gaining access to the contents of the receptacle, which was furnished with double sliding doors.

This structure, as described in the said patent, did not afford facilities for the ready introduction and withdrawal of the lime, owing to the difficulty of, and the delay incurred in, the removal and replacing of the sliding doors. Hence, I construct a lime receptacle or bin in the manner illustrated in Fig. 1, in which A represents the front, B the rear, C the inclined top, and D the bottom, of the bin, all these parts consisting of double walls of wood, with intervening spaces packed or lined with pulverized or fine lime, or other equivalent material, for excluding moisture.

When the bin is erected against the wall of a building the latter may constitute one of the walls of the bin.

In the front wall of the bin are two doorways, *a* and *b*, the upper doorway being furnished with a door, B, and the lower opening with a door, B'. Both doors are hinged to the bin, as shown, and may be provided with suit-

able tackle, by which they may be readily opened and closed.

Each door is so constructed that, when closed, it will exclude the moisture of the atmosphere from the bin. Thus, the upper door is shown as made with a chamber packed with absorbent or non-conducting material, the edges of both doors being furnished with a padding or packing, which fits snugly to the opening of the doorway.

Since the lime has the effect of causing the wood to shrink, the doorways would, in a short time, permit the entrance of moisture or air; and, to prevent this, I employ some elastic packing at the joints.

I have found that a packing of strong paper, or layers of paper, will effectually prevent moisture from passing into the bin at the junction of the door with the edges of the doorway; but other material, such as rubber, gutta-percha, or felt, may be used for this purpose.

The lower door B is made of layers of wood, with intervening layers of paper or other material of equivalent character.

The lime brought from the kilns is passed through the upper doorway into the bin, where it remains unexposed to the atmosphere until a supply is required for immediate use, when the lower door is opened, and the desired quantity removed and placed in cars or carts for transportation to the point where its use is required.

The bin is preferably erected at such a height from the ground that the lower edge of the lower door shall be on a level, or slightly higher than the bottom of the cart or other vehicle into which the lime has to be loaded from the bin. In some cases it may be most convenient to place the upper doorway at the top of the bin, so that the contents of cars on an elevated railroad may be discharged directly through the said opening; and, in some cases, the lower door may be at the bottom of the bin, and the lime may be discharged from the same through an inclined chute.

A bin constructed with doorways and doors, substantially as described, may be attached

to, or form a part of, a railroad-car, as shown in Fig. 2, so that the lime may be effectually protected during its transportation from the kilns to the place where it has to be stored or used.

I claim as my invention—

A lime-bin having a door or doors combined with a packing at the points where they fit the doorways, as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDW. B. ENGLISH.

Witnesses:

HARRY HOWSON, Jr.,
HARRY SMITH.