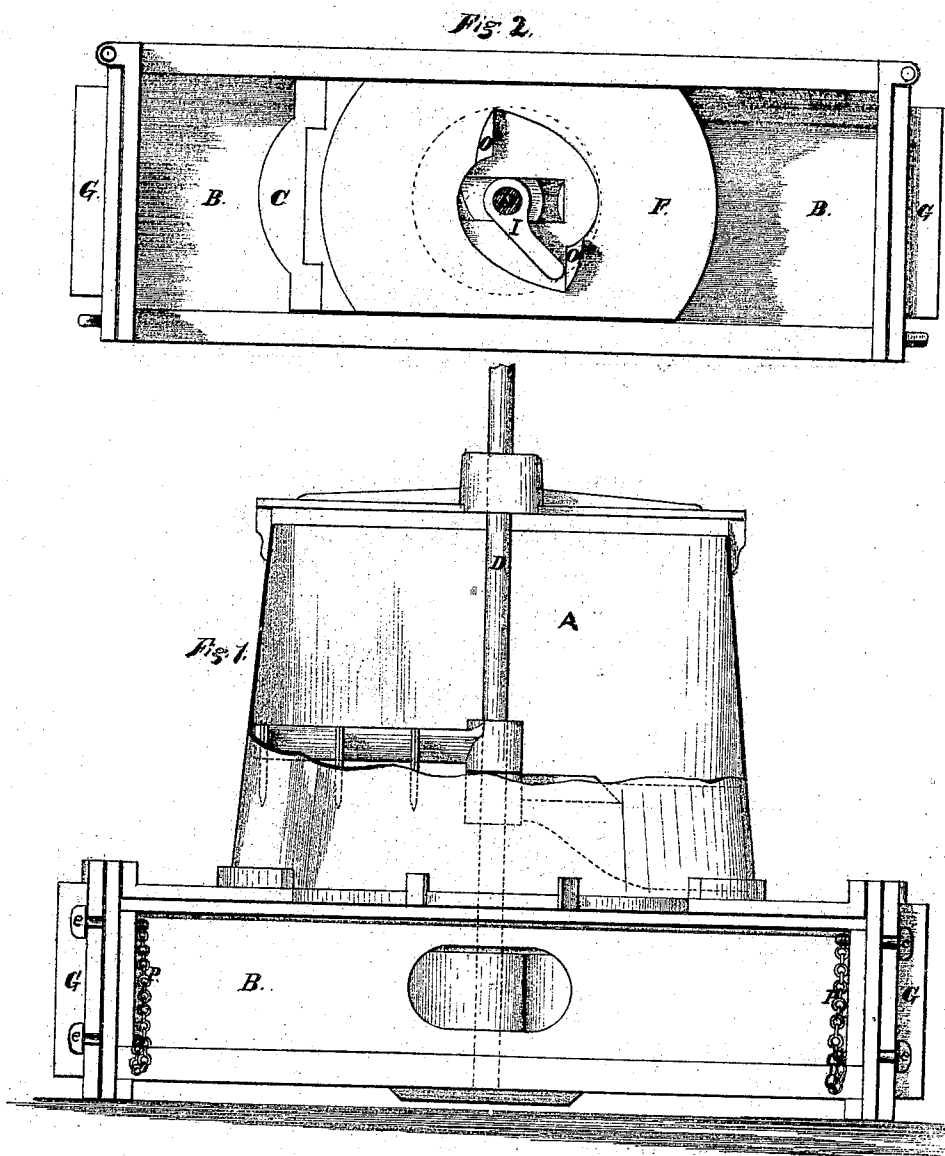


2. Sheets, Sheet 1.

A. Monrois,
Tile Machine.
No. 111,078. *Patented Jan. 17, 1871.*



Witnesses.
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A. Moorhous,

2, Sheets, Sheet, 2.

Tile Machine.

No. 111,078.

Patented Jan. 17, 1871.

Fig. 4.

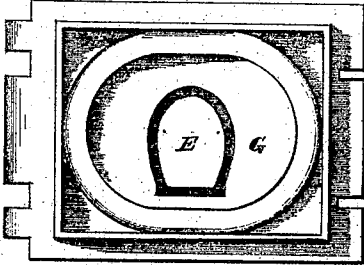


Fig. 6.

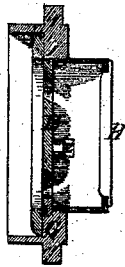


Fig. 5.

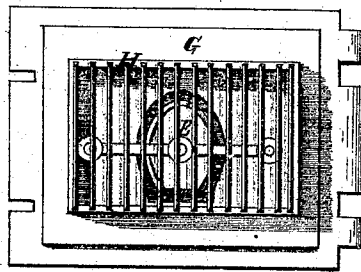


Fig. 7.

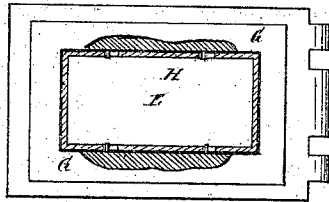
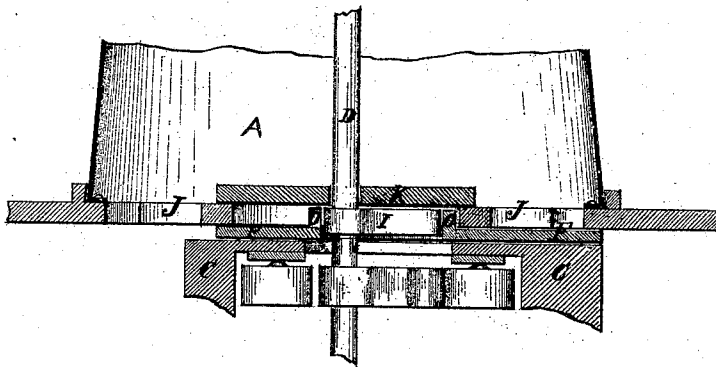


Fig. 3.



WITNESSES.

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United States Patent Office.

ALBERT MOORHOUS, OF INDIANAPOLIS, INDIANA.

Letters Patent No. 111,078, dated January 17, 1871.

IMPROVEMENT IN TILE-MACHINES.

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

I, ALBERT MOORHOUS, of Indianapolis, in the county of Marion and State of Indiana, have invented certain Improvements in Tile-Machines, of which the following is a specification.

Nature and Objects of the Invention.

The object of my invention is to provide for public use an improvement in tile-machines, whereby they shall be adapted to screen the clay passing through them of gravel, stones, &c., in a convenient and expeditious manner; and to this end,

The invention consists in arranging screens and dies in connection with hinged doors, which close the ends of the plunger-box, as and for the purpose specified.

Description of the Accompanying Drawing.

Figure 1 is a side elevation of a tile-machine embodying my invention.

Figure 2 is a horizontal or plan view of the cut-off and plunger-chambers, had by removing the upper plate and under drum.

Figure 3 is a vertical longitudinal section of the lower part of the mud-drum and the upper part of the plunger-chamber, to show more clearly the construction and arrangement of the cut-off and cam for operating the same.

Figure 4 is an elevation of the shutters closing the ends of the plunger-chamber, and in which the die is placed.

Figure 5 is an inside view of the same showing the arrangement of the screen to keep gravel from being forced into the die.

Figure 6 is a vertical transverse section through the shutter, screen, and die.

Figure 7 is a view, partly in section, of the inner side of one of the doors of the plunger-chamber showing the arrangement of the screen.

General Description.

As the mud-drum A, plunger-chamber B, plunger C, vertical shaft D, dies E, and cut-off F do not differ materially from tile-machines as ordinarily constructed, and as no claim is made to any part, except as herein clearly pointed out, it is not deemed necessary to do more than name by letter these several parts of the machine.

In order to provide a more convenient and efficient means of clearing the plunger-chambers of gravel or other foreign matters that may find their way therein by being mixed with the clay, and at the same time provide the requisite means of screening the clay before it passes to the dies E, I arrange the latter in hinged shutters G, which constitute the

ends of the plunger-chambers B, and attach the screen H on the inside of the shutter in such a manner that when it becomes necessary to clean the screen from gravel, &c., that may have lodged against it, all that is required is to open the shutter, when the gravel or other obstruction may be readily removed; and by this means the interior of the chamber is also accessible.

The screen H is placed about six inches in the rear of the die so as to afford ample space for the clay to form into a compact mass before it passes into the die.

The shutters are secured, when closed, by means of T-bolts.

The screens are provided with slots in their top and bottom flanges, through which project pins that are set in the door.

The object of this construction is to allow the screen to slide when in the act of closing the door, it comes in contact with a solid vertical wall of clay in the plunger-chamber. If the screen were fixed in its attachment the hinges of the door would be subjected to undue strain, and the labor of securing it increased.

When the shutters have been opened to remove any gravel that may have lodged against the screen and it is not necessary to remove the clay from the chamber, it will be found that the shutters will be difficult to close on account of the compactness of the clay, and in order to force the shutter back to its position I provide a chain attached by both its ends to the side of the chamber through which to pass a lever with which to pry the shutter back to its place.

The mud-drum is constructed with a recess in the center of the bottom by making the outer part of the bottom a ring, J, and covering the center opening with a plate, K, which gives space for a cam of greater strength, and also affords room for upward-projecting lugs o, attached to the cut-off with which the cam engages to operate it.

I do not claim, broadly, screening clay in a tile or brick-machine; but

I do claim as my invention—

The arrangement of the slotted screens H H and removable dies E E with the hinged shutters G G, which are locked by the T-bolts, as shown and described, for the purpose of allowing the gravel to be removed from the plunger-chamber B, as specified.

ALBERT MOORHOUS.

Witnesses:

O. F. MAYHEW,
G. A. SKINNER.