

*H. P. Baker,*

*Tile Machine.*

*No. 102,862.*

*Patented Dec. 6, 1870.*

Fig. 1.

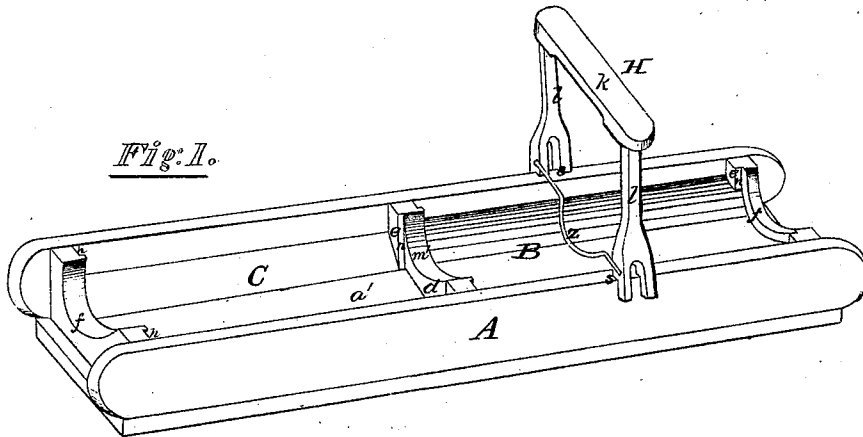


Fig. 2.

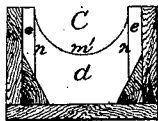


Fig. 3.

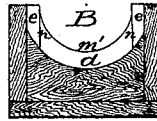
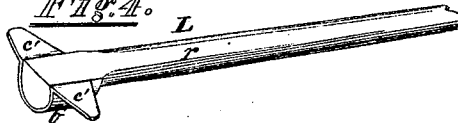


Fig. 4.



Witnesses

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# United States Patent Office.

HENRY F. BAKER, OF CENTREVILLE, INDIANA.

Letters Patent No. 109,862, dated December 6, 1870.

## IMPROVEMENT IN DRAIN-TILE MACHINES.

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, HENRY F. BAKER, of Centreville, in the county of Wayne and State of Indiana, have invented a new and valuable Improvement in "Drain-Tile Machines;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my invention in perspective.

Figures 2 and 3 are cross-sections thereof.

Figure 4 is a view in perspective of the finisher.

My invention has relation to means for manufacturing drain-tiles; and

It consists in the construction and novel arrangement of the mold for shaping the outside of the tile, and of the cutting and smoothing implements for making and finishing the channel.

The letter A of the drawing designates the mold, provided usually with two matrices, one to form the upper tile, and the other to make the lower or base tile.

B represents the matrix for molding the upper tile. It is generally made more shallow than its fellow.

C designates the matrix for molding the lower or base tile, deeply hollowed out and provided with a level bottom *a'*.

Between the two matrices is a partition, *d*. One side of this partition is provided with re-entering corners *e*, having vertical sides *n n* running from the bottom *a'* to the top of the partition, at each side of the semicircular notch *m'* through it, which marks the size of the channel.

These re-entering corners correspond to recesses *h h* formed in the wall *f* of the end of the matrix.

Similar vertical recesses and re-entering corners are formed in the end walls of the mold B, which forms the upper tile. The object of these corners and recesses is to prevent the lateral movement of the tiles when joined in line.

Semicircular notches similar to that in the partition *h* are formed also in the end walls of the mold.

The clay having been placed in the matrices is leveled and the channel cut out by means of the cutter-instrument H. This consists of a cross-bar or han-

dle, *k*; two vertical standards, *l*, and a cutter-blade or wire, *z*.

The standards *l* are shouldered at *s s*, in order that they may fit the outer longitudinal edges of the mold and be guided thereby.

The wire *z* is bent downward in a semicircular form in the center, and then extends outwardly horizontally to the vertical standards.

The semicircular portion serves to cut out the channel, while the horizontal portions on each side level the edges of the tile on each side thereof.

After the cutting is performed and the refuse clay removed from the mold, should there appear to be any break or want of smoothness in the channel or the edges of the tiles, a finishing-instrument, L, is drawn over the whole. This finisher consists of a simple handle, *r*, shod with a semicircular strip of metal, *b'*, bent outward horizontally at each end in the form of ears *c' c'*.

The employment of these devices is designed to save much time and labor. The drain-tiles can be made thereby as rapidly as bricks can be molded.

The notches in the upper edges of the partition and end walls of the mold may be polygonal instead of semicircular in form, and the channel-cutter and finisher should have a corresponding formation.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The matrices B C, provided with the vertical re-entering corners *e* and the vertical recesses *h*, and having their end walls and partition notched to suit the form of channel required, as specified.

2. The combination of the mold A, having the notched end walls *f* and notched partition *d* with the channel-cutter H, having the shouldered guides *l l*, substantially as specified.

3. The combination of the mold A, having the notched end walls *f* and notched partition *d* with the finisher L, shod with the plate *b'* bent to suit the form of the channel, and provided with the guiding ears *c'*, as specified.

In testimony that I claim the above, I have hereto subscribed my name in the presence of two witnesses.

Witnesses:

HENRY F. BAKER.

O. S. McMAHON,

JOHN W. HOUCK.