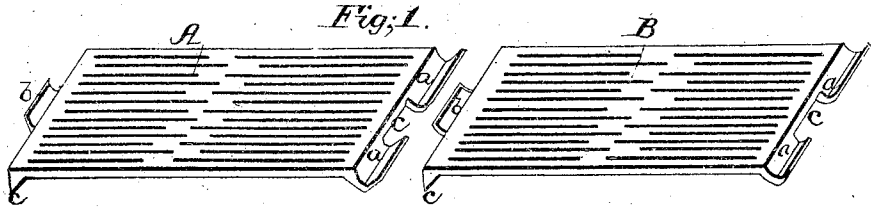
S. T. Savage.

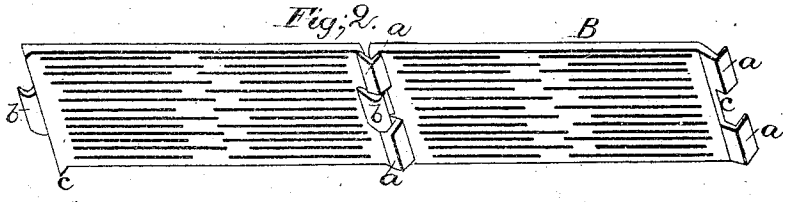
Iron Pavement.

No. 22,036. Patented Nov. 9, 1858.

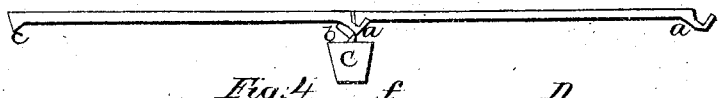
Fig; 1.



Fig; 2.



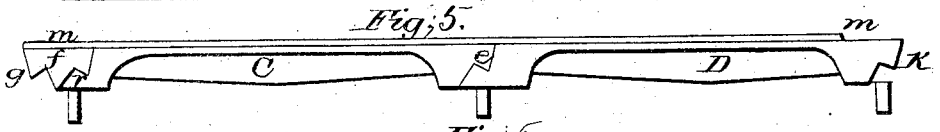
Fig; 3.



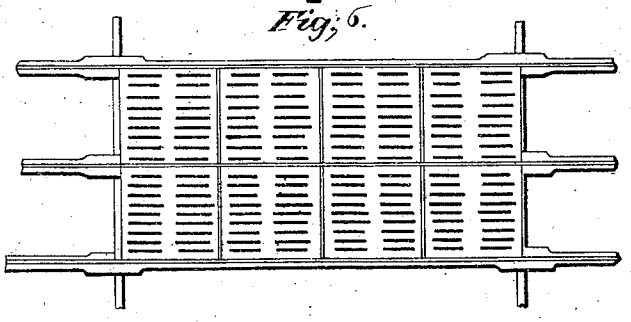
Fig; 4.



Fig; 5.



Fig; 6.



Witnesses;

E. Smith

Chas. Frank DeWitt.

Inventor;

S. T. Savage

UNITED STATES PATENT OFFICE

S. T. SAVAGE, OF ALBANY, NEW YORK.

CONNECTING METALLIC TILES, PLATES, BEAMS, &c.

Specification of Letters Patent No. 22,035, dated November 9, 1858.

To all whom it may concern

Be it known that I, SILAS T. SAVAGE, of the city of Albany, State of New York, have invented a new and useful Improvement in the Construction of Metal Malt-Kiln Tile and in the Mode of Laying and Securing the Same for Kiln-Flooring; and I declare the following specification, with the drawings hereto attached as part of the same, to be a full and perfect description thereof.

Figure 1 represents in perspective two tiles separated, in order to show their attaching apparatus. Fig. 2 represents the two tiles, in reverse, hooked together. Fig. 3 represents a profile cross section longitudinally through the tiles, with their mode of lying upon the bearing bars. Fig. 4 a plan and Fig. 5 a profile of two bearing bars united together. Fig. 6 a plan of two series of tiles laid down on the bars.

Similar letters denote the same parts of the apparatus in the several figures.

Metal plates for the floors of malt-kilns in the place of perforated earthen tiles are coming much in use; but when such metal tile, are simply thin square plates pierced with holes or slots, for the passage of the hot air from the furnace of the kiln are laid down upon bars without any method for securing them, so that no one of them can be lifted with ease individually from its bed; it happens very frequently that from grains working under the edges of a tile, or in the shoveling of the malt, the edges of the shovel catching between the tiles, or against their edges, they (the tiles) are lifted out of their places, whereby great detention and detriment ensue in the management of the malting process.

To obviate this, is the object of a part of my invention; for which purpose I connect the tiles together in succession; the attachment being formed by clasps or hooks which form part of the tile as shown in Figs. 1, 2, 3, where A and B are the tiles, *a*, *a*, being a continuation of the end of the tile, dropping down a little and then curving upward hookwise, occupying two-thirds of the end of the tile A, leaving a third part vacant in the center.

Tile B has upon the center of its end next A, a hook *b* similar in its form to those of A so as to fill up the vacancy between *a*, *a*, the rest of the edge of B, being occupied by a drop *c* which fits snugly into the hollow of the hook *a*, *a*; the edge of A between *a*, *a*, being similarly shaped to fit into the hollow at *b*.

The tiles are all made similar to each other.

The position of the hooks when the tiles are locked together is shown in Figs. 2 and 3. It will be manifest from an inspection of the drawings, that if the parts be properly proportioned, this arrangement will keep the tile lying flat and even without the possibility of the intrusion of grains or any thing of the kind, or that the edge of a shovel should lift the tile.

It will also be noted that the tile can be put together or separated, with the greatest promptness, by attaching or removing first the end tiles of a row.

For the support of these tiles in the kiln I use peculiarly constructed metal bars shown in Figs. 4 and 5. C and D represent a pair (of a series) of bars coupled together at *e*. The one end of each bar is formed into a tongue *f* with a hook shaped terminal *g*, and the other end is formed into a mortise *h* the back end of which is formed into a reverse hook, into which *g* fits accurately. The cheeks of the mortise being also shaped hookwise at *k* to fit into reverse hooks *r* formed on the bar back of hook *g*, all of which will be understood from the drawing. By this construction, it will be seen that these bars can be promptly attached to each other, or detached, and that if they be well fitted to each other a number together will form a long bar, keeping a level position and capable of sustaining a very great pressure. The bars have along their top a narrow ridge piece *m* which lies, (as shown in Fig. 3) in the angle formed by the intersection of the lines of the hooks, when the plates are together, keeping the tiles steadily in their places.

Although these tiles and bars are peculiarly adapted for malt-kiln flows, yet I do

not confine myself to their construction alone, but whenever it may be advantageous I use them for any analogous structure.

I claim—

The application and use of hook or clasp-shaped terminals, formed and arranged as represented, at the ends or edges of malt kiln tiles and beams or analogous structures, such as floors and beams of any kind, for the purpose of attaching them to each other and supporting them firmly in a proper position, substantially as described and for the purposes set forth in the within specification.

Signed, S. T. SAVAGE.

Witnesses:

E. J. MILLER,

PHIL. FRANK DE WITT.