(No Model.)

W. H. HUGHES.

DRYING FLOOR FOR MALT KILNS.

No. 264,700. Patented Sept. 19, 1882.

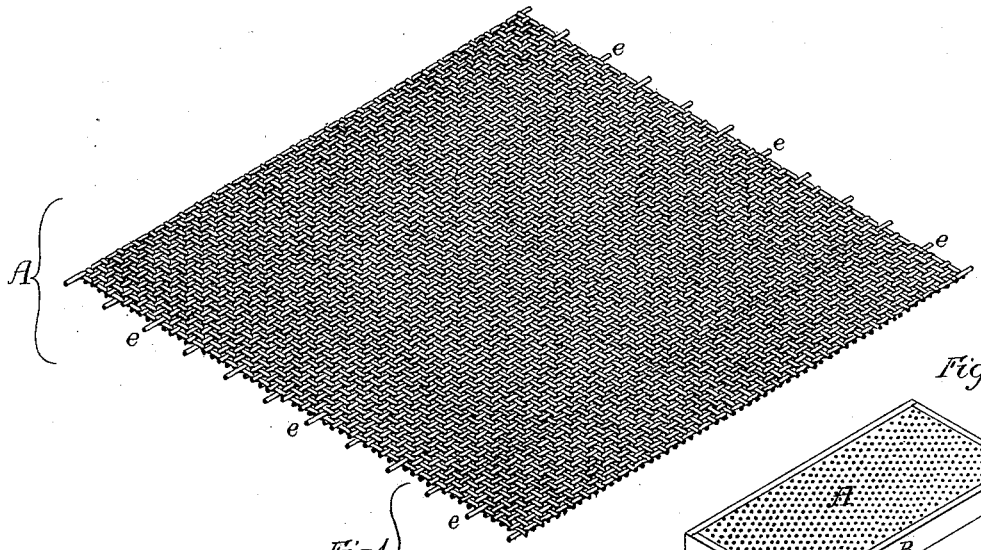


Fig. 1.

Fig. 3.

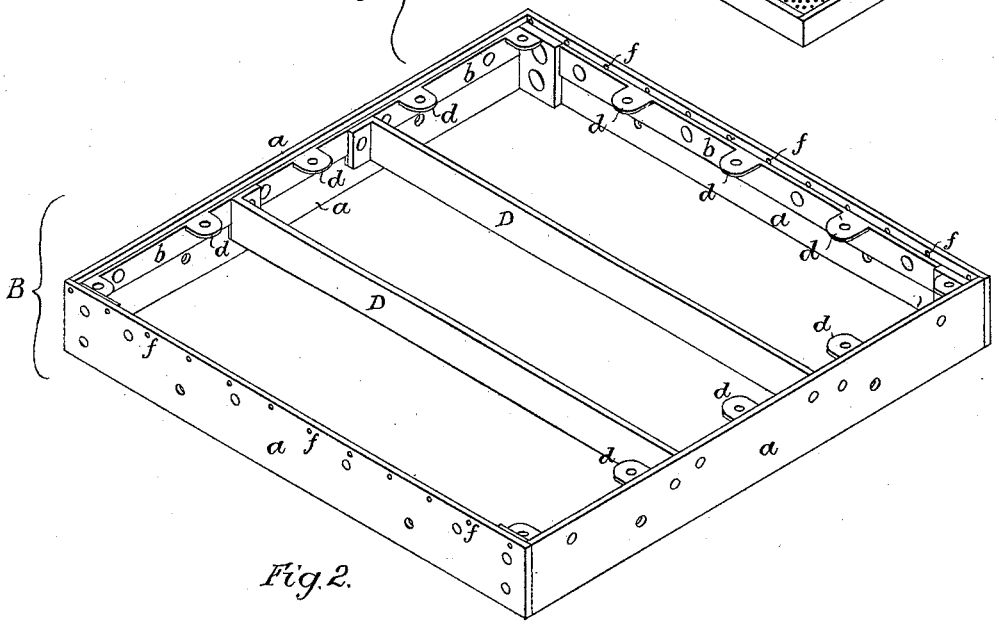
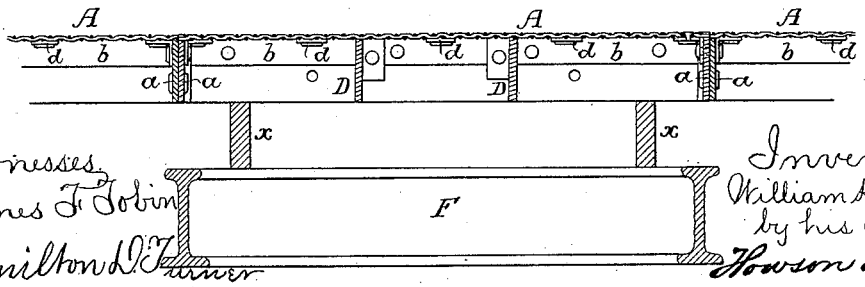


Fig. 2.



Witnesses,
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UNITED STATES PATENT OFFICE.

WILLIAM H. HUGHES, OF PHILADELPHIA, PENNSYLVANIA.

DRYING-FLOOR FOR MALT-KILNS.

SPECIFICATION forming part of Letters Patent No. 264,700, dated September 19, 1882.

Application filed May 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HUGHES, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented Improvements in Drying-Floors for Malt-Kilns, of which the following is a specification.

My invention relates to an improvement in that class of malt-kiln floors which are made of removable sections; and the object of my improvement is to so construct the sections and so attach the perforated plates thereto that the upper surface of one section shall be flush with that of the others, the floor thus presenting a uniform level surface, free from projections and depressions.

In the accompanying drawings, Figure 1 is a perspective view of one of the sections of the floor, the perforated or net-work portion being separated from the supporting-frame. Fig. 2 is a sectional view of part of a floor; Fig. 3, a perspective view of a section of a different shape from that shown in Figs. 1 and 2.

The drying-floors of malt-houses are usually made of perforated sheet-metal plates or sheets of wire-gauze, and it is desirable that these plates shall be so fitted together and so supported that the floor will present a continuous rigid and uniformly level surface throughout, this being of especial importance in connection with the mechanical devices now being used for turning or agitating the malt on the drying-floor. In order to attain this object, I construct the floor of sections, such as shown in the drawings, each of these sections consisting of a sheet, A, of perforated metal or wire-gauze, and a frame, B, which supports and retains said perforated sheet. In this specification I shall allude to the portion A as a perforated plate, and it should be understood that this term includes either perforated sheet metal or wire-gauze.

The frame B consists of four bars, *a*, united at the corners by bending and riveting together the ends of the bars, or by means of suitable internal angle-irons or braces, and the plate A rests upon an internal ledge, which is so situated that the upper surface of the plate is flush with the upper edges of the bars *a*, the ledge being formed in the present instance by strips *b*, secured to the inner sides of the bars *a*, each strip having a series of lugs or ears, *d*, to which the plate A is secured by riveting. When the plate is made of wire-gauze, further security may be afforded by passing the ends of some of the wires *e* through openings *f* in the bars *a* and riveting said ends on the outside of the bars. When extra strength is desired the section may have one or more transverse bars, D, riveted to the bars *a* at the ends, and adapted to provide a support for the perforated plate between the ends of the same. In the present instance I have shown two of these transverse supporting-bars.

The sections are fitted together to form a floor in the manner shown in Fig. 2, in which F represents T beams or girders running from wall to wall of a building, and serving to support a series of bars, *x*, arranged at any suitable distance apart. The sections are arranged in rows extending across the room, and are supported by the bars *x*, the adjoining bars *a* of the rows of sections and of the sections of each row being bolted together, so as to form a perfectly solid and unyielding structure, without any joints in which the grains of malt can find a lodgment.

The sections may be square, as shown in Fig. 1; but in most cases they will be made of the oblong form shown in Fig. 3, the section being about twice as long as it is wide.

The internal ledges in the quadrangular frame of each section may be made during the rolling of the bars of which the section is made.

I am aware that a perforated drying-floor has been composed of quadrangular sections secured together. This, therefore, I do not claim, broadly; but

I claim as my invention—

1. A drying-floor composed of detachable sections, in each of which a quadrangular frame having an internal ledge is combined with a perforated plate, A, bearing on and secured to the ledge, so that the upper surface of one section shall be flush with the upper surface of the other sections, all as set forth.

2. The combination of the supporting-frame B, having openings *f*, with the plate A, having projecting wires *e*, adapted to said openings, as set forth.

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

WM. H. HUGHES.

Witnesses:
HARRY DRURY,
HARRY SMITH.