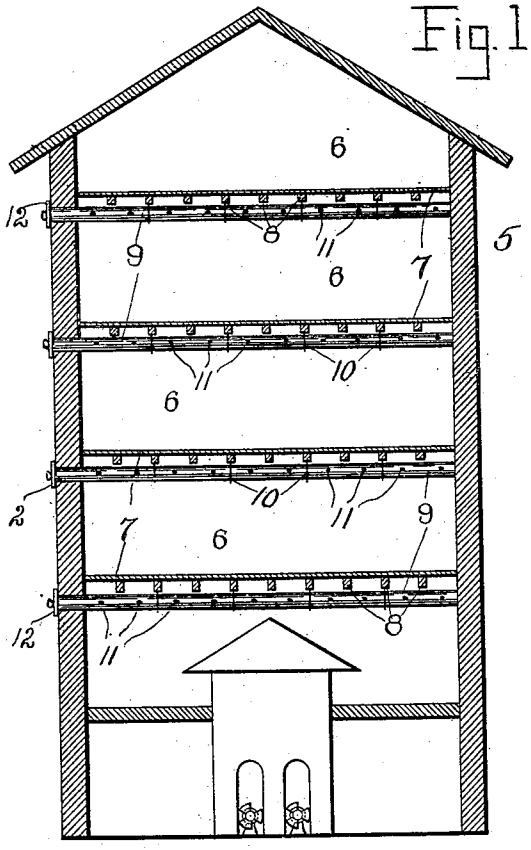
P. WESSINGER.

MALT KILN.

APPLICATION FILED JUNE 13, 1910.

988,157. Patented Mar. 28, 1911.

Fig. 1.



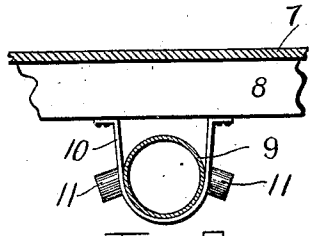


Fig. 3.

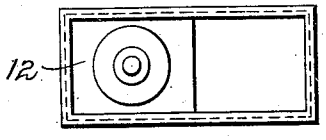
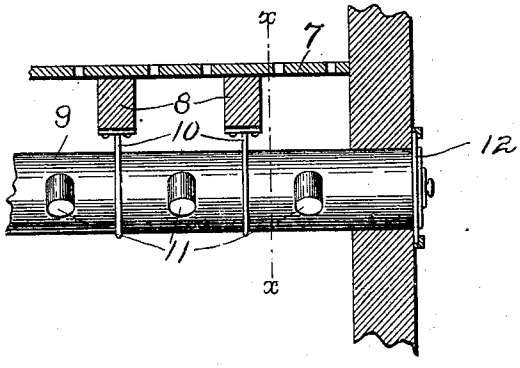


Fig. 4.

Fig. 2.



Inventor

Paul Wessinger,

By Edson Bro's.

Attorneys.

Witnesses

Ernest P. Hutchinson.

M. E. Shook

UNITED STATES PATENT OFFICE.

PAUL WESSINGER, OF PORTLAND, OREGON.

MALT-KILN.

988,157. Specification of Letters Patent. Patented Mar. 28, 1911.

Application filed June 13, 1910. Serial No. 566,687.

To all whom it may concern:

Be it known that I, PAUL WESSINGER, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Malt-Kilns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to malt kilns, especially to the ventilation thereof for the purpose of reducing and regulating the temperature therein.

Other objects are to evenly distribute the cool air within the kiln and to provide ventilating apparatus which is simple in construction and inexpensive to install.

I attain these objects by means of tubes arranged below the perforated floors of the various compartments of the kiln, providing said tubes with distributing spouts at suitable intervals and by further providing adjustable inlet valves for said tubes.

The invention also consists in the features of construction and combinations of parts hereinafter described and specified in the claims.

In the accompanying drawing: Figure 1 is a vertical section of a malt kiln equipped with ventilating apparatus constructed in accordance with my invention. Fig. 2 is an enlarged detailed view showing a portion of one of the tubes in side elevation, together with the inlet valve and the hangers which support it from the rafters of the floor. Fig. 3 is a cross section on the line x—x of Fig. 2, and Fig. 4 is a detailed elevation of one of the inlet valves.

Referring more particularly to the drawings, 5 designates a malt kiln which is separated into several compartments 6 by perforated horizontal partitions or floors 7 supported on rafters 8. Below these floors are arranged horizontal tubes 9 which are let through the wall of the kiln and have their outer ends flush with the outer surface of said wall. These tubes may be supported in any suitable manner, as for instance by hangers 10 depending from certain of the rafters.

Any desired number of laterally and downwardly extending spouts or short auxiliary tubes 11 are attached to each of the tubes 9, as may be necessary to effectively distribute the cool air throughout the respective chambers 6. The inlet valve may consist of a sliding door 12, as illustrated. It should be understood, however, that I do not limit myself to this specific form of valve nor to the other details of construction herein shown and described but reserve the right to make such changes as fairly fall within the scope of the appended claims.

In the operation of the kiln, should any of the chambers 6 become overheated, the corresponding doors 12 are opened thereby permitting fresh air to enter from the outside of the kiln through the tubes 9 and spouts 11 and become diffused throughout said chambers. The entrance of the cool air from the outside mixes with the warm air within and reduces or regulates the temperature in said chambers to any desired degree. It will be noted, of course, that the sliding doors may be opened only partially, if desired, in securing the proper regulation.

I claim:

1. The combination, with a closure of the character described and a perforated horizontal partition therein, of a horizontal ventilating tube arranged below said partition and extending through the side of the closure, said tube having openings therein arranged at intervals throughout its length, and an inlet valve for admitting air to said tube from the outside of the closure.

2. The combination, with a closure of the character described and a perforated horizontal partition therein, of a horizontal ventilating tube arranged below said partition and extending through the side of the closure, spouts arranged at intervals throughout the length of said tube and projecting laterally therefrom, and an inlet valve for admitting air to said tube from the outside of the closure.

3. The combination, with a closure of the character described and a perforated horizontal partition therein, of a horizontal ventilating tube arranged below said partition and extending through the side of the closure, spouts arranged at intervals throughout the length of said tube, said spouts projecting laterally and being inclined downwardly from said tube, and an inlet valve for admitting air to said tube from the outside of the closure.

4. The combination, with a malt kiln having a plurality of perforated horizontal floors, of horizontal ventilating tubes ar-

ranged below said floors and extending through the side of the kiln, said tubes having perforations in the sides thereof arranged at intervals throughout their length, and an inlet valve for admitting air to said tube from the outside of the kiln.

5. The combination, with a malt kiln having a plurality of perforated horizontal floors, of horizontal ventilating tubes arranged below said floors, spouts projecting laterally from said tubes at intervals throughout their length, and an inlet valve for admitting air to said tube from the outside of the kiln.

6. The combination, with a malt kiln having a plurality of perforated horizontal floors, of horizontal ventilating tubes arranged below said floors, spouts arranged at intervals throughout the length of said tubes, said spouts projecting laterally and being inclined downwardly from said tubes, and an inlet valve for admitting air to said tubes from the outside of the kiln.

In testimony whereof, I affix my signature, in presence of two witnesses.

PAUL WESSINGER.

Witnesses:
A. OHLHOFF,
GEO. E. GRIFFITH.