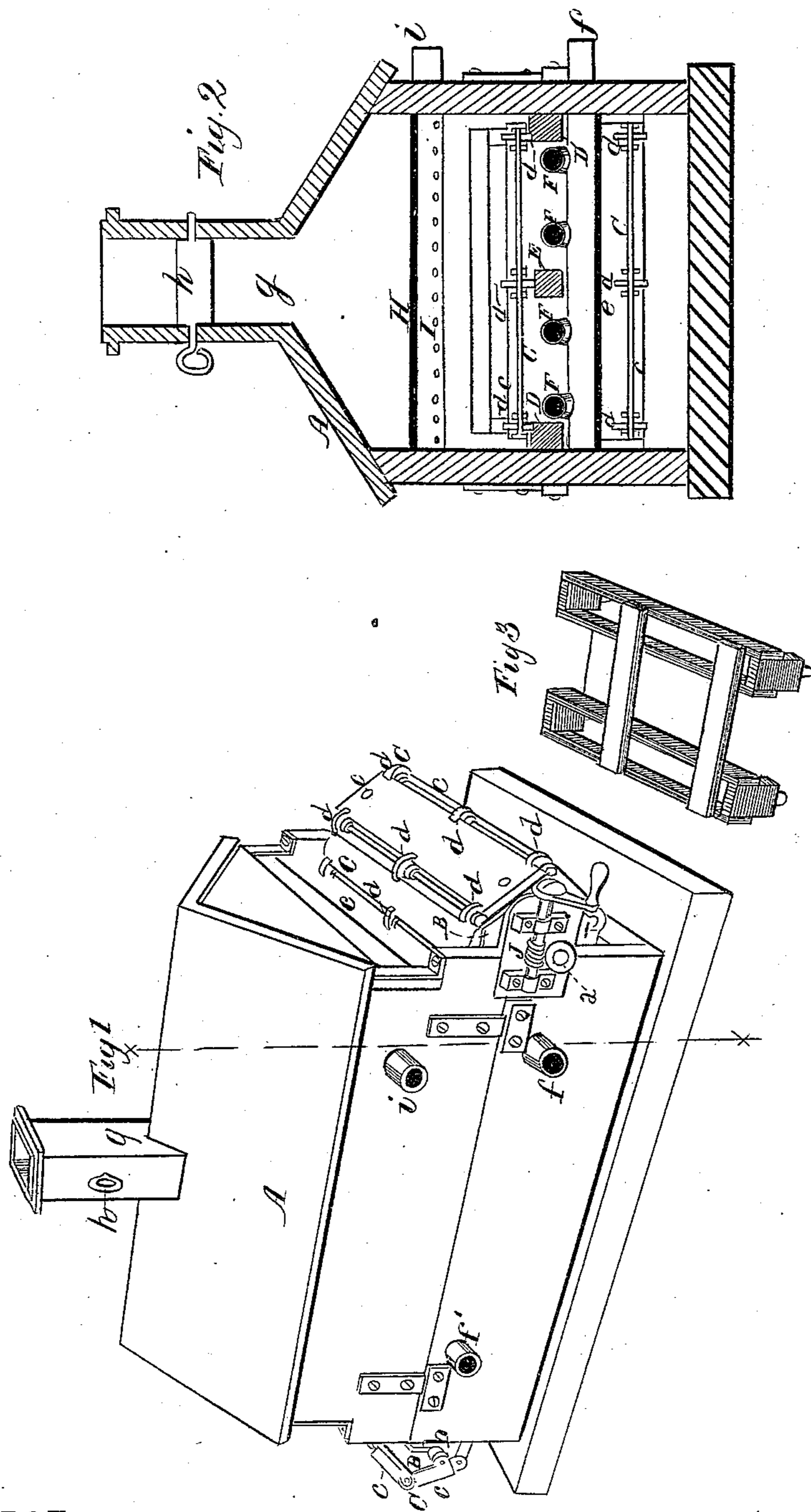


Dean, Hamilton, Tenney & Putnam,

Brick Kiln.

No. 94,188.

Patented Aug. 31, 1869.



ATTEST

H. F. Chert
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INVENTORS.

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UNITED STATES PATENT OFFICE.

E. C. DEAN, H. HAMILTON, GEORGE P. TENNEY, AND A. T. PUTNAM, OF
DETROIT, MICHIGAN.

IMPROVEMENT IN KILNS FOR DRYING BRICKS.

Specification forming part of Letters Patent No. 94,188, dated August 31, 1869.

To all whom it may concern:

Be it known that we, EDWARD C. DEAN, HENRY HAMILTON, GEO. P. TENNEY, and ALBERT T. PUTNAM, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Apparatus for Drying Bricks Preparatory to Burning; and we do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a perspective view of our drying apparatus. Fig. 2 is a vertical sectional view of the same on the line *x x* in Fig. 1. Fig. 3 shows the method employed to place one or more tiers of bricks upon the carrier above each other, when desired.

Like letters indicate like parts in each figure.

The nature of this invention relates to a kiln for the purpose of drying bricks preparatory to being placed in the burning-kiln, thereby enabling the operator to carry on his work during stormy and wet weather, and preventing the losses which occur at such times in attempting to dry upon an open yard, as ordinarily arranged.

The invention consists in an endless belt or carriage composed of slats hinged together at their edges, working over drums, and arranged to receive the bricks at one end and carry them through a suitable building or oven and over a coil of heating-pipe.

It also consists in injecting into said building or oven through a perforated pipe, and above the bricks upon the endless belt, a current of hot air, for the double purpose of preserving as near an even temperature above and below the bricks as possible, to prevent checking by reason of one side drying faster than the other, and to create a draft to carry off the steam thrown off in the process of drying.

It further consists in a new, novel, and ingenious arrangement of all its various parts.

A in the drawings represents a building or oven, which may be constructed of wood, bricks, or other appropriate material. At each end of this building are journaled the shafts *a b*, upon which are placed and rigidly secured the drums B, the drums at the receiving end

of the building being arranged on a slightly higher plane than those at the delivering end of the building, in order to allow the weight of bricks to assist in the forward motion of the carrier.

C represents the endless belt or carriage, composed of slats *c* arranged together edge-wise and hinged together at each end and in the center, the whole secured to wheels *d*, the outer wheels running upon flanged tracks D or their equivalents, while the center wheels run upon the center plain track, E, thereby maintaining the various parts of the carrier in a level condition, and allowing them to be moved with the least amount of friction. The said drums are polygonal, and their plain surfaces correspond in width with the slats, by which means the slats are carried over the drums in a manner to prevent the wheels from coming into contact with the drums. A non-conducting floor, *e*, is arranged below the upper or carrying part of the carrier. Above this floor and underneath said upper part of the carrier there is provided a coil of steam heating-pipe, F, by which any amount of heat may be communicated to the bricks as they are carried over the apparatus from the receiving to the delivering end of the building. The steam is admitted to this coil through the connection *f*, and discharged through the connection *f'*. Above the upper part of the carrying part of the carrier another non-conducting floor, H, is arranged, in which there is a suitable opening leading to the flue *g*, which passes upward through the roof, and is provided with a valve, *h*. Just below the non-conducting floor, and above the carrier, is arranged a perforated pipe, I, to which a connection may be made at *i*, and through which heated air may be driven by a fan or other convenient device and distributed in the building through the perforations in the under side of the pipe. By this arrangement and operation the steam thrown off in the process of drying the bricks will be carried off upward through the flue hereinbefore mentioned.

Should it be desired to dry more bricks at any one time than can be laid upon the slats of the carrier or endless belt, additional racks and platforms may be placed and secured to the slats at the receiving end of the building,

upon which bricks may be placed. Care should, however, be taken to remove these additional racks when, in the movement of the carrier, they arrive at the delivering end of the building.

Should the slats of the carrier be made of planks, the lower edges should be chamfered or beveled off to prevent their warping.

The necessary motion to the belt may be communicated by a worm-screw and pinion, J, or any other known device deriving power from an engine or any other convenient and desired mechanism.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The building or oven A, provided with non-conducting floors *e* and H, flues *g*, and valve *h*, when constructed and arranged to operate as above set forth.

2. In connection with the above, the combination of the carrier or endless belt C, the drums B, the wheels *d*, and the tracks D and E, when constructed and arranged to operate as above described.

3. In connection with said building or oven A, constructed and provided, as aforesaid, with the parts *e*, H, *g*, and *h*, the combination of the steam-pipes F and the perforated hot-air pipe I, constructed and operating as and for the purposes aforesaid.

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Witnesses:

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