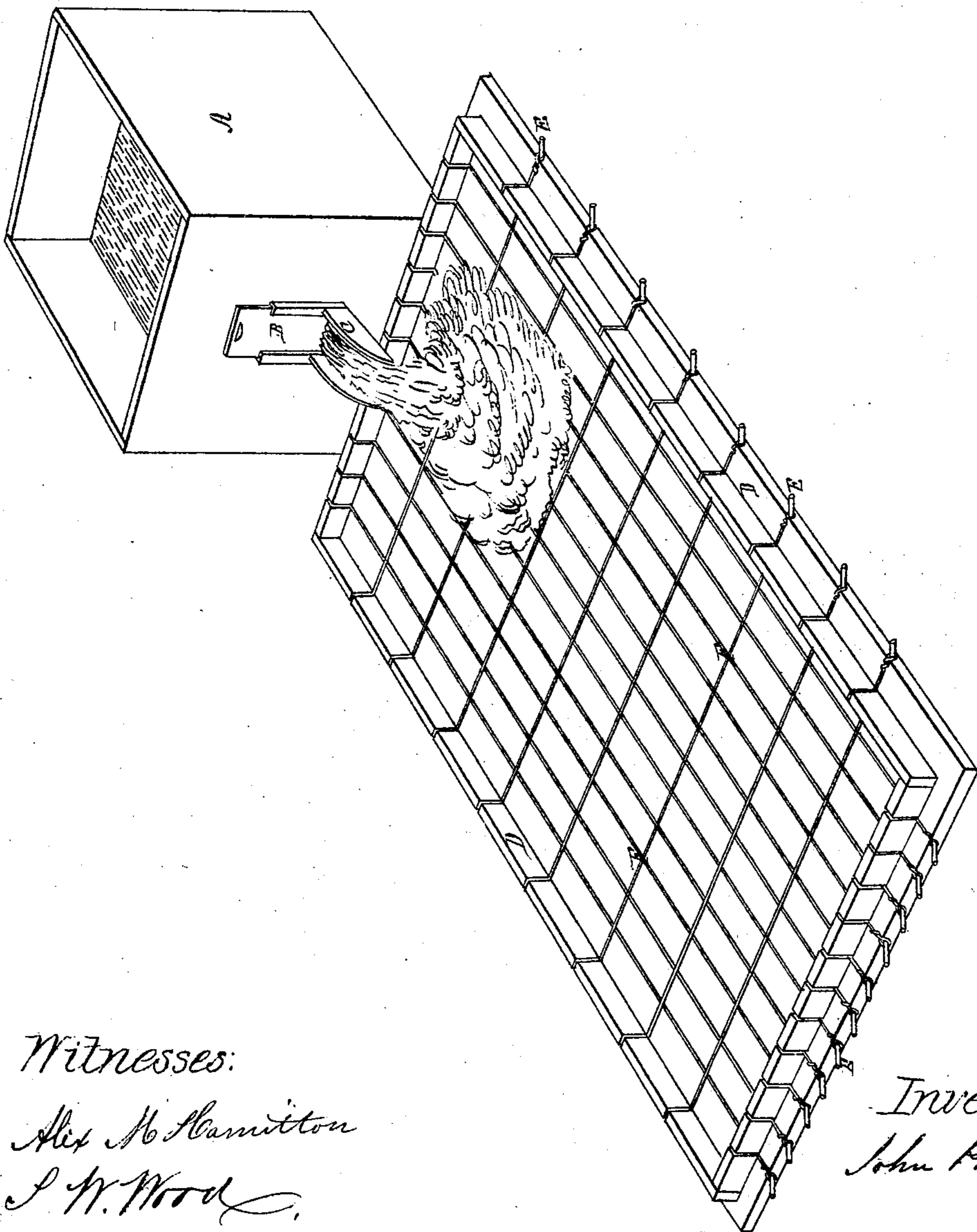


J. Plumb,
Brick Machine
No 13,042. *Patented June 12, 1855.*



Witnesses:
Alex McHamilton
J. W. Wood

Inventor:
John Plumb

UNITED STATES PATENT OFFICE.

JOHN PLUMBE, OF SAN FRANCISCO, CALIFORNIA.

CUTTING CLAY INTO BRICKS.

Specification of Letters Patent No. 13,042, dated June 12, 1855.

To all whom it may concern:

Be it known that I, JOHN PLUMBE, of San Francisco, in the county of San Francisco and State of California, have invented improvements in the manufacture of bricks, and other like articles, whereby their cost is diminished and intrinsic value increased; and I hereby declare that the following is a full and exact description thereof.

Water enough is mixed with the clay to admit of its flowing from wherever prepared—into the mold frames, and thus becoming sufficiently smooth and level, on its upper surface, without the assistance of any tool. The mold frame is made of any length and breadth desired, and of suitable depth for the formation of one tier of bricks at a time. The bottom may be constructed of boards; or, otherwise, the floor of the yard may be made to serve this purpose. Small wires—the width of a brick apart—are stretched, parallel with the sides, and in contact with, and over the whole of the inside of the bottom, of the frames, each end of every wire passing through a corresponding vertical, transverse slit in the respective ends of the frames, and being fastened, by a pin, on the outside. In like manner, similar wires—the length of a brick apart—are stretched at right angles, and in contact, with the first wires; the ends of these last, passing, of course, through slits in the sides of the frame. The whole of the inside of the bottom of the frame will thus be divided into parallelograms; each corresponding with the superficial dimensions of the bricks intended to be formed. The bottom is then “dusted;” and the clay allowed to flow, (along a spout,) from the receptacle containing it, into the mold-frame, until the latter is filled; when the “gate” in the reservoir is closed. As soon as the clay in the frame has become sufficiently dry to admit of being cut into bricks, without sticking to each other, the wires are pulled up—one, or more, at once—it being obvious that all the wires of the set last laid down, must be removed before any of those of the set first stretched, are disturbed: and thus, the entire contents of the frame, will be rapidly formed into the shape designed.

I am aware that a patent has been granted to Julius Willerd, for an improvement in brick making, wherein wires were used for dividing the clay; but, horizontally, in only one direction: and, then, instead of cutting upward, they were made to cut downward, only; whereby their application was necessarily restricted to a very short length; owing to the impracticability of preventing a long wire assuming a curved, instead of straight, line, when in the act of cutting; the consequence of which is, that when applied downward, it cannot be forced, throughout its entire length, to the bottom of the frame; and therefore, the object of dividing the clay into separate bricks, cannot, in this way, be effectually accomplished, but a very limited scale of operation; whereas, by my arrangement, a wire of miles in length, might be used—making a clean cut, from one end to the other; which is obviously an improvement of no small importance; particularly in view of the facility with which a simple, mechanical arrangement might be made available, for the movement of the wires when used in a manufactory of great extent. I am also aware that a patent, each, has been issued to Nathan Johnson, and S. E. Ransom, for improvements in brick making: but it does not appear that either of them uses the clay sufficiently liquified to admit of its flowing, directly into his mold-frame; nor of dispensing with a “lute” for smoothing and leveling its upper surface.

Tiles, and other cognate articles, of various shapes, can of course be formed upon the principles above set forth.

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

The mode of forming bricks or their equivalent, by means of wires, or their equivalent cutting upward, substantially as herein described; irrespective of the manner in which the clay is prepared, and placed in the mold-frame.

JOHN PLUMBE.

Witnesses:

W. F. BROWN,
M. A. BOYLE.