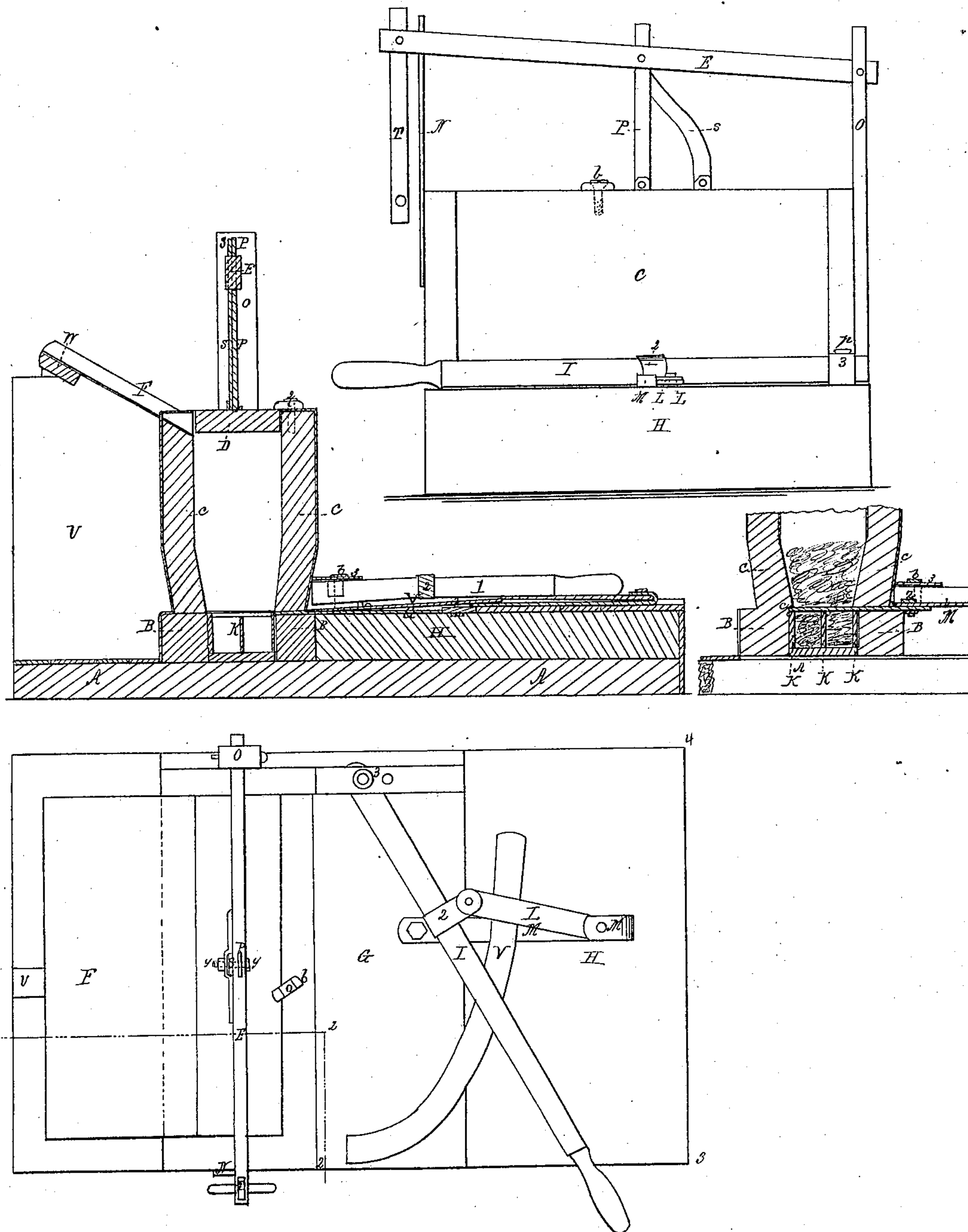


M. P. Crane,

Brick Mold.

N^o 15,329.

Patented July 15, 1856.



UNITED STATES PATENT OFFICE.

MARINUS P. CRAPO, OF BUCKSPORT, CALIFORNIA.

MACHINE FOR STRIKING UNBURNED BRICKS.

Specification of Letters Patent No. 15,329, dated July 15, 1856.

To all whom it may concern:

Be it known that I, MARINUS P. CRAPO, of the county of Humboldt and State of California, have invented a new and useful
5 Machine for Striking Unburned Bricks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings, making a part of this specification,
10 and to the letters and figures marked thereon, in which the same parts are always marked by the same letters or figures.

My machine consist of a platform A; a mold bed B (with one end and the top
15 open) fastened thereto; a hopper C fitting exactly on the top of B, and supplying the mold with mortar; a follower D moved vertically up and down in C by means of the lever E acting on the pitmans P, and S,
20 for the purpose of forcing the mortar into the mold K; an apron F, one edge resting on the top of the right side of the hopper C, the other sustained by the upright U on the cross-bar W at such an elevation that the
25 mortar when poured on it will readily slide down it into the hopper; a striker G on its bed H worked by the lever I which gives to its edge *c* a horizontal motion parallel to itself the ends of said cutter sliding in
30 grooves on opposite ends of the hopper one of which is at *h* in the "elevation and section on 12, and 13 of plan", which strikes the mortar from the top of the mold when filled, as shown in the "supplementary" figure in red lines, and gives the upper surfaces of the bricks a smooth surface.

In the drawings annexed A is the platform on which the other parts of the machine are fastened; B, the mold box having
40 its top and one end open; C, the hopper in two parts firmly banded together the lower part resting on the top of the mold bed, the inner edges of the opening thereof coming just far enough within those of the said top
45 to cover the edges of the mold when in its bed, as shown by darker shading marked *a a* in the "elevation and section" on the annexed drawing. The sides of this lower part incline outward as they rise and meet
50 those of the upper part of the hopper which are vertical.

D, the follower, is a board fitting closely into the upper part of C in which it works vertically by means of the lever E attached
55 to the pitmen S and P which are themselves fastened to the top of D by the eyes *r* and *t*

fixed on the longitudinal midline thereof one at the middle and the other half way between this and the end of the follower, to which eyes the lower ends of said pitmen
60 are attached by bolts around which they can revolve; a button *b* prevents the follower from being drawn up out of the hopper; the follower is used to force and press the clay into the mold; E, a wooden lever of
65 suitable dimensions one of which passes through and freely works in a mortise in the top of the upright post O around a rivet bolt *o'*; the center being mortised to receive the pitman P immediately outside of
70 which is a bent clamp X leaving between it and the lever an aperture of sufficient size to receive the end of the curved pitman S, which passing through it by the side of the pitman P coming through a mortise in the
75 lever, is secured by the bolt G G around which they can both freely turn.

F, the apron, is an inclined plane on which the mortar for filling the hopper, is placed. It is supported by, as before stated,
80 by the top of the hopper and the cross-bar W and is steep enough to make the mortar run off freely. The lower edge of the apron is placed low enough to give plenty of room for the mortar to run into the hopper under the follower D when raised so that its
85 top surface brings it against the button *b*, on the upper right hand edge of the hopper.

G, the striker, is an iron (or other metal plate) having the inner under edge beveled
90 from bottom to top; its ends sliding in grooves passing between the bed mold B and hopper C, the ends of which pass over the opening for the bed-mold as shown on one side at *h* (elevation section). The
95 striker slides backward and forward in the grooves on H, the striker-bed, which is made of the same height as B the mold-bed, and may be solid or hollow. On its back edge at its middle point there is an eye
100 *m* (see supplementary figure) attached by bolts which receives the straight end of M. A bent strap 3 receives the end of I, the lever, which works freely therein around the pivot *p*, bearing the eyed claps 2, which
105 receives one end of L, a short pitman, the other end of which rests in the bent end of M both ends being secured by pivots around which it can freely turn. Iron is best for this; K, the mold, slides tightly into the
110 bed; M, the bent iron strap, aforesaid, attached at its straight end to the eye *m*, on

the striker G and at the other to the pitman L, passes under the curved iron arc V which allows it to move freely but prevents it from rising when the machine is
5 worked.

N, is an iron stanchion attached to the side of the hopper with a notch or ledge on one side so placed that it can support the end of the lever F when the follower D is
10 raised against b the button; O, an upright post bearing the fulcrum of the lever E; P, a straight iron pitman already described; S, a bent pitman working P on the follower D; T, a wood handle passing through a
15 mortise in the end of the lever I; V, an upright post sustaining the cross-bar W; V, the circular traverse above described.

To operate my machine the parts being made and put together as described, shove
20 the mold K into the bed B; throw the handle I back sliding the striker to back in its groove until the edge c uncovers the mold as shown, a c of elevation section; raise the lever E until the follower brings
25 up against the button b, and the lever on the notch or ledge on the iron stanchion N; pour mortar on the apron F; it will slide down it under the follower D into hopper C and thence into and fill the molds.
30 Then pull down on T as strongly as you

desire. Next seize and bring forward the end of the lever. The beveled edge of the striker causes it with freedom and ease to rise over the side of the mold on which without the bevel it would catch or chafe as
35 soon as a little sand or clay got into the mold bed under the mold. The striker G, brought forward by I, passes under and separates the mortar in the hopper from that in the mold, and at the end of the lever
40 stroke stands as shown in the "supplementary figure." The beveled edge of the striker G also causes it to run over and press down into the mold any small lumps
45 gravel, stones or straw and thus render the surface more full and firm than it would otherwise be.

While by this arrangement the tender operates the machine without being obliged to move from his position in front of the
50 bold-box, obviously a very great advantage.

What I claim as my invention and wish to secure by Letters Patent is—

Operating the follower D, and striker G, by means of mechanism constructed and arranged as above described.
55

M. P. CRAPO.

Witnesses:

JAS. C. MURDOCH,
A. J. McDONALD.