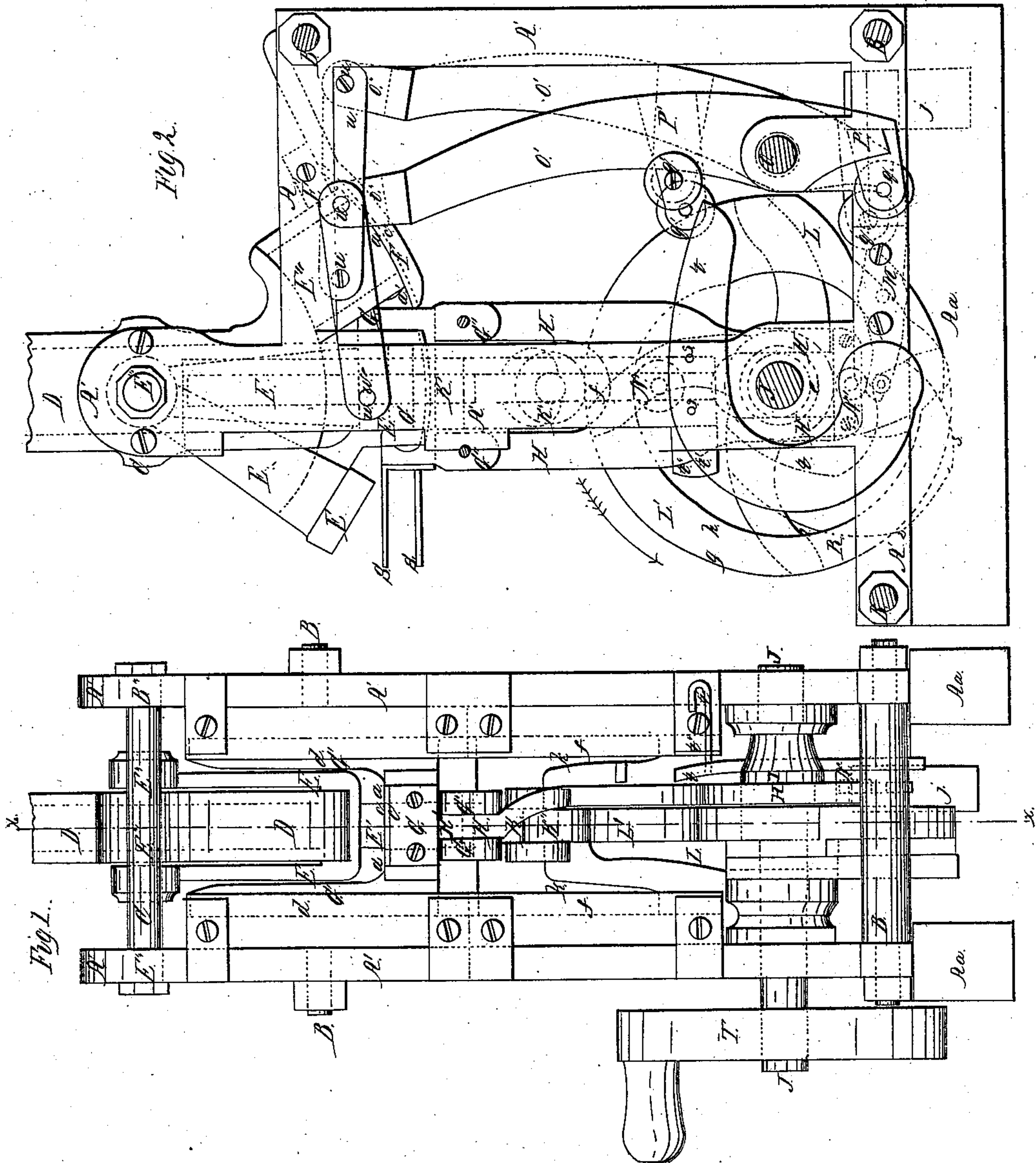


S. L. Stick,
Brick Machine.

2 Sheets, Sheet 1.

N^o 18,166.

Patented Sep. 8, 1857.



S. L. Stick,
Brick Machine.

2 Sheets, Sheet 2.

N^o 18,166.

Patented Sep. 8, 1857.

Fig 3.

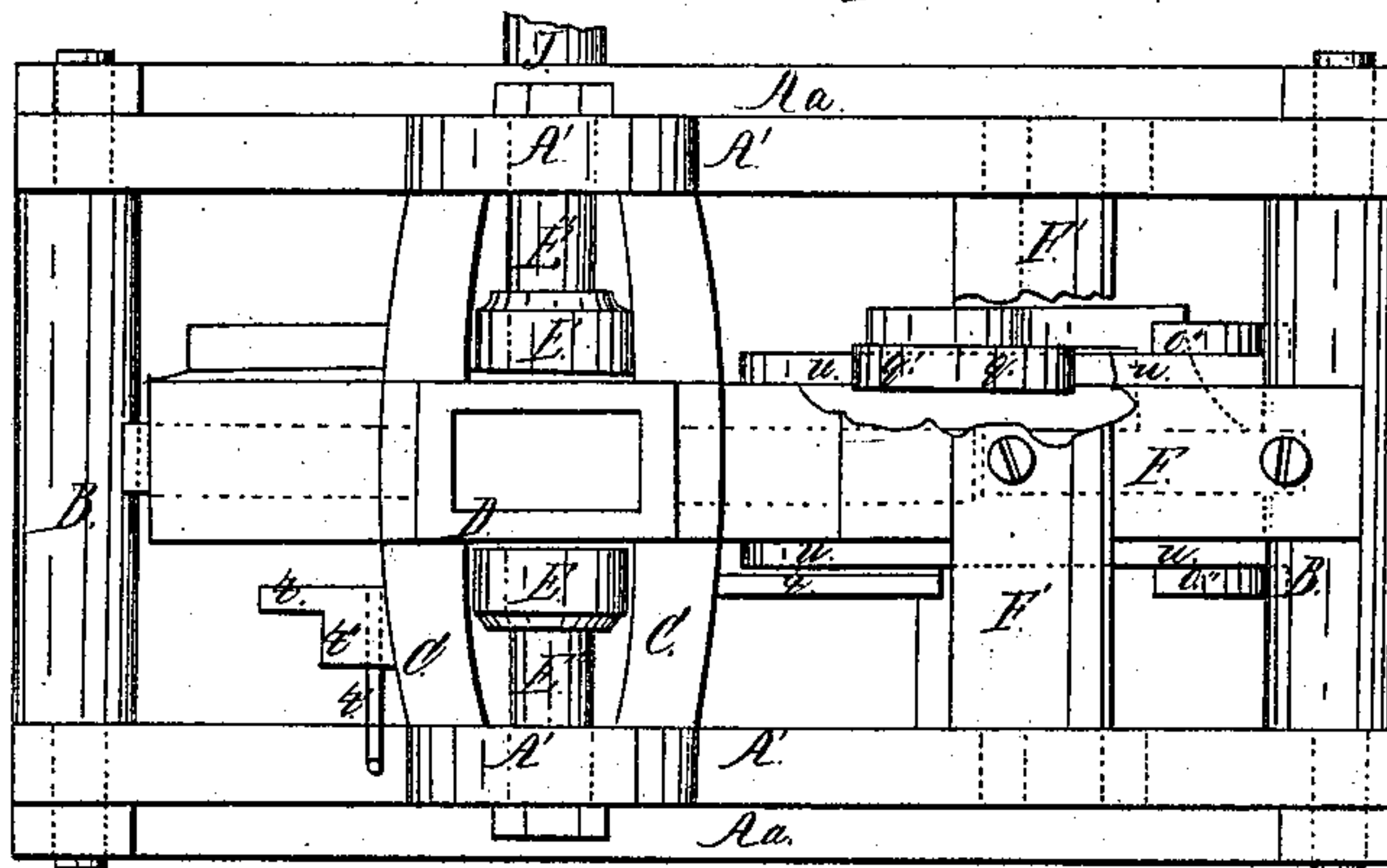


Fig 5.

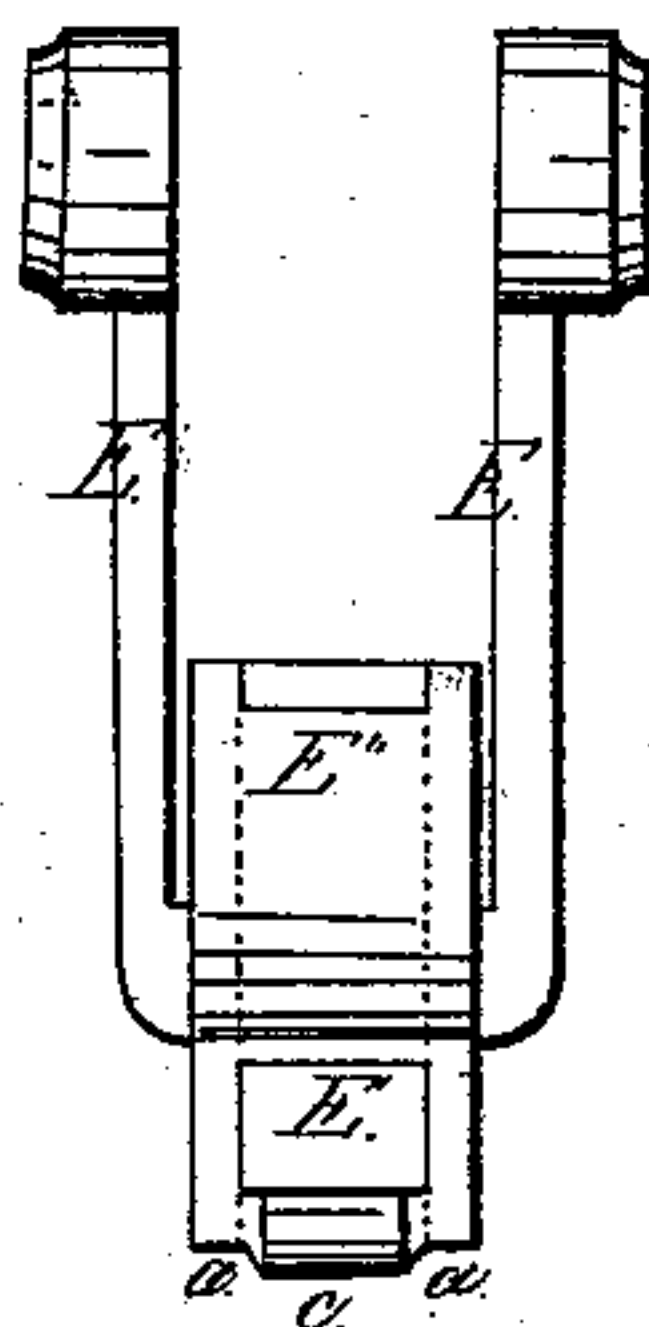


Fig 6.

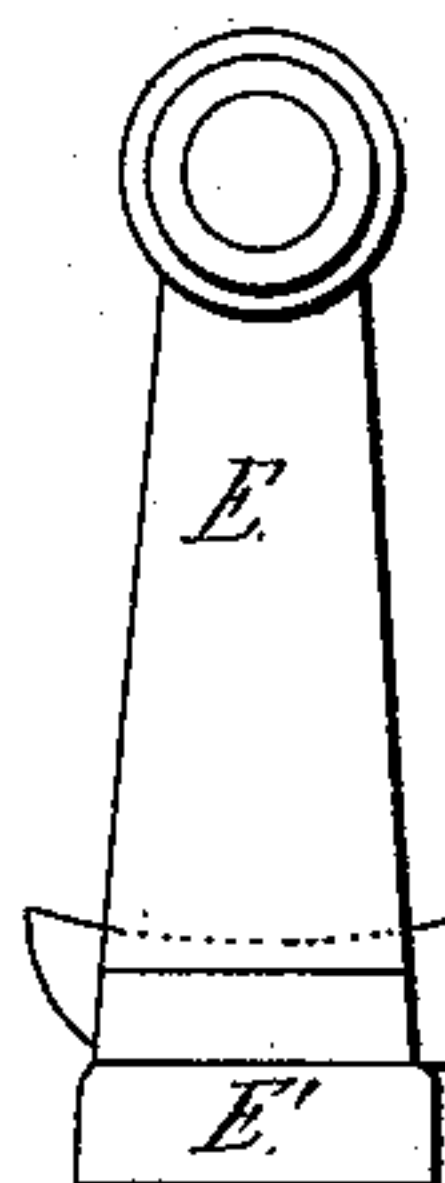
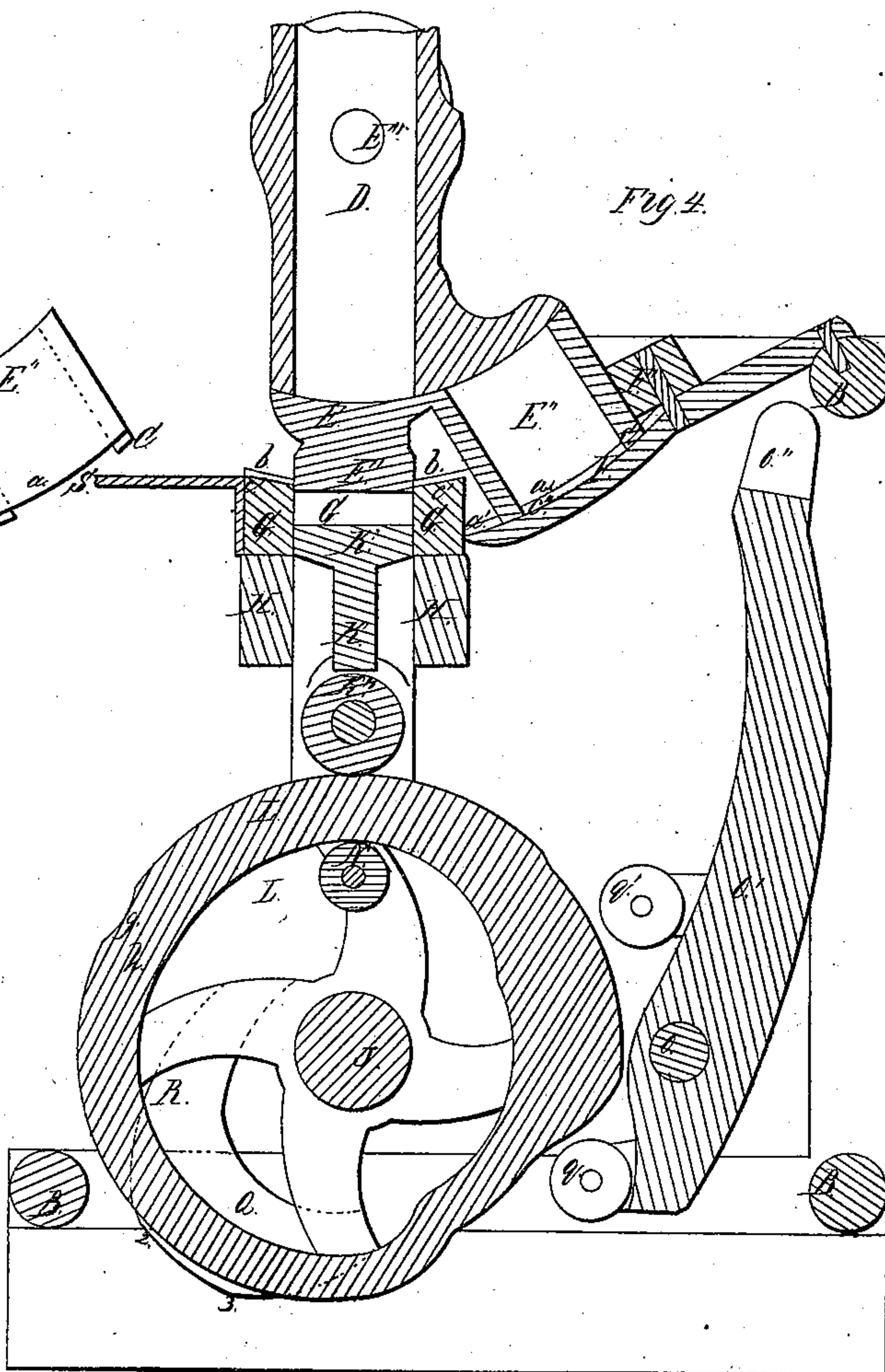


Fig 4.



UNITED STATES PATENT OFFICE.

STEPHEN USTICK, OF PHILADELPHIA, PENNSYLVANIA.

BRICK-MACHINE.

Specification of Letters Patent No. 18,166, dated September 8, 1857.

To all whom it may concern:

Be it known that I, STEPHEN USTICK, of the city and county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Machines for Molding and Pressing Brick from Untempered Clay, and that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1, is a front elevation of the machine; Fig. 2, is a side elevation of the same; Fig. 3, is a top view of ditto; Fig. 4, is a vertical longitudinal section through the line x, x , of Fig. 1; Fig. 5, is front view of the piston E' , and filling box E'' , combined; Fig. 6, is a side view of the same.

Like letters in the several figures indicate the same parts of the machine.

My invention is an improvement on my machine for which Letters Patent were granted to me July 7th, 1857, and consists in the peculiar construction and combination of the condensing mold and oscillating clay charger and parts attached to the same, by which I am enabled to fill the molds in such a manner as to get a greater proportion of clay in the corners and edges of the bricks, than in the middle, and thus secure great compactness and solidity to the said parts, which will be hereafter more fully described.

To enable others skilled in the arts, to make and use my invention, I will proceed to describe its construction and operation.

Aa, Aa , are foundation timbers.

A', A' , are side pieces of standing frame.

B, B, B , and C , are cross stretchers of the same.

D , is the hopper.

E , is an oscillating frame to which the piston E' , and filling box E'' are attached. E''' , E''' , are pins on which said frame E is hung.

F , is the bottom of the filling box E , F' , a cross stretcher to which said bottom is secured.

G , is the condensing mold; G', G' , slides of the same, and G'', G'' , double cheeks in which the upper prongs of the yoke H , are secured.

J , is the driving shaft.

K , is the lower piston block; K' , the piston, on the upper end, and K'' , a friction wheel on the lower end of the same.

L , is a cam wheel; L' , the rim of the wheel; h , the inner and g , the outer, peripheries of the same. M , is a lever. N , a friction wheel on yoke H , and N' , a friction wheel in the lower crosspiece of said yoke.

O , is a rock shaft, O' , an arm of the same, with cheeks O'', O'' .

U, U , are bars or rods which connect the block-shaft with the filling box E'' , by means of pins u', u' .

P, P' , are arms of the rock shaft, and q, q' , friction wheels on said arms.

Q , is a plate which has on its outer edge a curved surface or cam R .

S , is a table in front of the mold to receive the brick.

T , is a pulley or driving shaft J . t , is a curved strip which is adjustable to regulate the depth of clay in the mold, and on which the pin t' , of piston block K , rests, while the mold is receiving its charge of clay.

As all these parts have been fully described in my patent issued July 7th, 1857, I will confine myself to a particular description of the construction and operation of the filling box E'' , and condensing mold G , in so far as my present improvement consists; and by which as stated above I get a greater proportion of clay in the edges and corners of the bricks, than in the middle of the same and thus give greater compactness and solidity thereto;

The curved surfaces a, a , of filling box E'' , and b, b , of condensing mold G , are scribed from the center of the pins E''' , E''' , to allow an oscillatory movement of the filling box instead of a vibratory one, as in my patent of July 7th, 1857, and by means of said curves, to get a greater depth of clay, at the ends than in the middle of the mold; and the ends c, c , of the said filling box E'' , project as represented in the drawings to cause the filling box, in its backward movement in cutting off the surplus clay from the mold to leave the clay higher along the sides of the latter than in the middle of the same. The mold G has at its ends depressions c', c' , and the plate F , a like depression c'', c'' , which clear the projecting surfaces c, c , of the filling box, in its passage over the same. By thus filling the mold, along its edges with a greater quantity of clay than in the middle as described, I get the edges and corners of the bricks much more solid with a given quantity of clay, and a certain amount of power applied than when the

mold is filled, with an equal depth of clay; and in the drying of the bricks as they are less dense in the middle than at their edges, they are not so liable to crack in drying as
5 usual by the more rapid drying of the edges, than the middle of the brick, in consequence of the too great density of the latter.

Having thus fully described the construction and operation of the brick machine, as
10 invented or improved by me, what I claim therein as new and desire to secure by Letters Patent, is—

The oscillating filling box E'', with projections *c, c*, at its ends, in combination with

the condensing mold G having depressions 15 *c', c'*, at its ends, when said parts are constructed and arranged to operate in relation to each other, and in connection with the pistons E' and K', as above described.

In testimony that the above is my invention, I have hereunto, set my hand and affixed my seal, this twenty-fourth day of June 1857. 20

STEPHEN USTICK. [L.S.]

Witnesses:

THOMAS J. BEWLEY,
JNO. B. KENNEY.