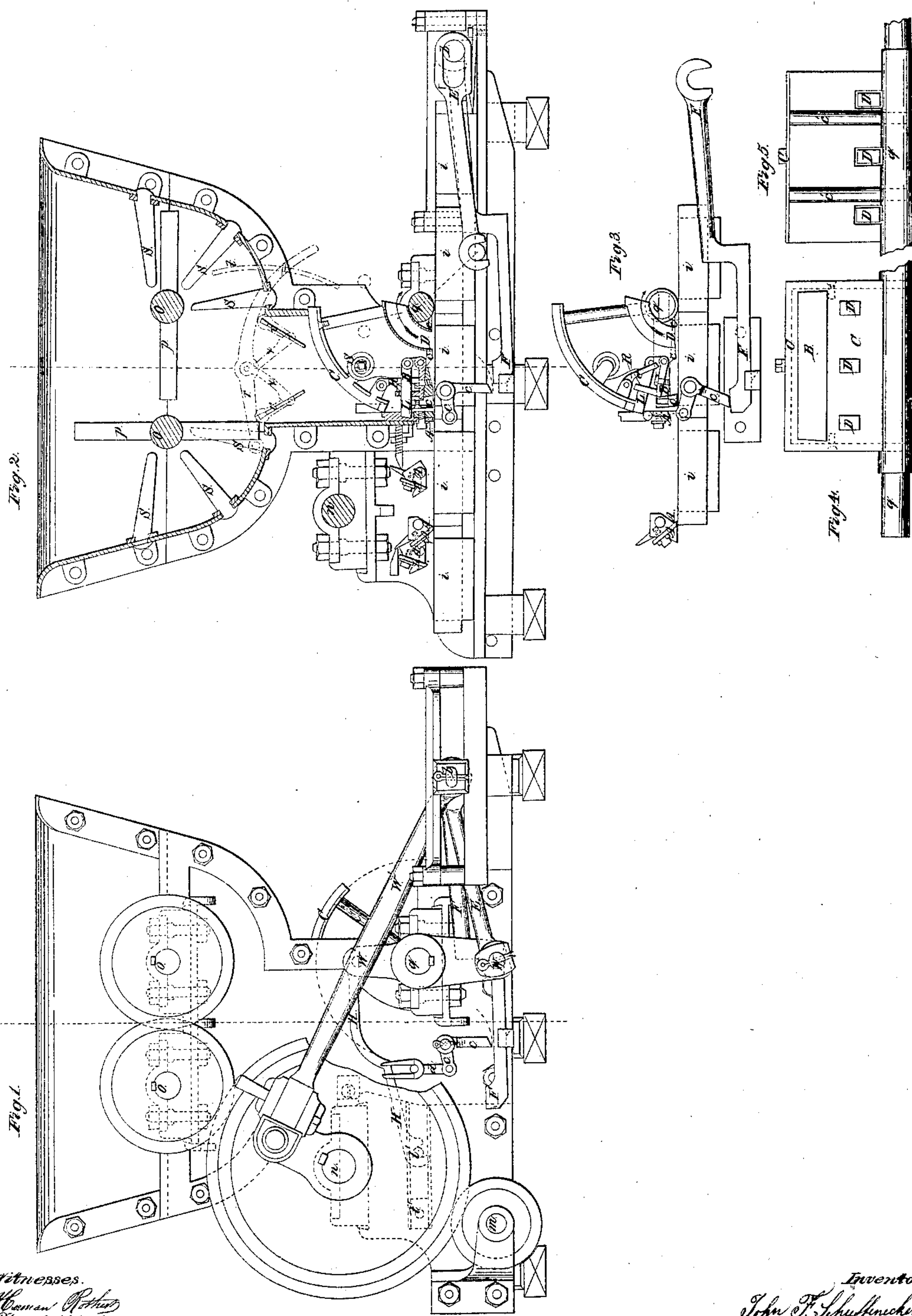


*J. F. Schuffenecker,*

*Brick Machine.*

*N<sup>o</sup> 23,315.*

*Patented Mar. 22, 1859.*



*Witnesses.*  
*Harman P. Potter*  
*Ph. Adlata*

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*John F. Schuffenecker*



# UNITED STATES PATENT OFFICE.

JOHN F. SCHUFFENECKER, OF KEOKUK, IOWA.

## BRICK-MACHINE.

Specification of Letters Patent No. 23,315, dated March 22, 1859.

*To all whom it may concern:*

Be it known that I, JOHN F. SCHUFFENECKER, of Keokuk, in the county of Lee and State of Iowa, have invented a new and  
5 useful Machine for Making Bricks of Tempered Clay, of which the following is a full and exact description, reference being had to the annexed drawings, which make a part of this description.

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

Figure 1 is a side view of the machine; Fig. 2 is a section of the same; Fig. 3 is  
15 an inside view of what I term the quadrant and some of its appendages; Fig. 4 is the under surface of the quadrant and Fig. 5 is the quadrant as it appears when seen from an end view of the machine.

20 *m* is the axle of the driving wheel of the machine having cogs on its outer periphery which work into corresponding cogs on the larger wheel *n* by which the two equal wheels *o o* are driven. Through the shafts of  
25 these latter wheels the arms *p p* are placed making acute angles with those shafts respectively. These acute angles are turned in different directions on the different shafts for the purpose of more effectually grinding  
30 and mixing the clay.

*s s* are arms attached to the hopper and placed at an angle to correspond with those of the arms in the respective shafts.

35 *r* is a lever which by being held at different elevations by the rack *t* may close entirely the shutters *v v* or may leave the opening between them as great as may be desired.

40 The clay when properly moistened is placed in the hopper as shown in Fig. 2. Upon first commencing work the shutters are entirely closed until the clay is properly mixed after which they are opened as far as necessary to allow the mortar to pass into  
45 the molds *i i*. The quadrant *C* turning on its axle *q* rises at the proper time to allow the clay to pass into the molds when it is brought back again and its inferior surface shown in Fig. 4 is pressed down upon the mortar  
50 sufficiently to fill the molds completely. The apertures *D D* allow the superfluous mortar to pass out and to be deposited in the empty molds in the rear of those which are thus filled. The lower surface of the quadrant  
55 is not brought into complete contact with the molds though very nearly so.

To prevent the mortar from being drawn out of the molds by the effect of atmospheric pressure as the quadrant is made to rise from the molds which have been filled as  
60 above described I use a shutter *B* which is made to open previous to the rising of the quadrant.

As the molds after being filled are moved forward toward the left in the manner  
65 hereinafter described a scraper *A* brings down the clay in the molds to the exact height of the molds except for a small portion at the front end of the molds. If the  
70 scraper were to pass over the entire surface of the molds it would draw the mortar away from the front edge so as to prevent the forming of a sharp corner of the brick. To prevent this result the scraper is raised  
75 above the surface about one-eighth of an inch and is brought down upon the surface of the molds after the front edge of the mold has passed the scraper about three-eighths of  
80 an inch. After this another scraper *A* moving in the opposite direction levels down the small portion of the surface which escaped the action of the scraper *A* and completely fills the mold with mortar.

I will now point out some of the principal instrumentalities by which the results above  
85 mentioned are produced.

*b* shows the end of a driving bar extending across the rear end of the machine and to which a reciprocative motion is communicated by the rod *W'* and a corresponding  
90 rod on the opposite side of the machine. A set of molds *i* being placed on the apron in front of this driving bar is by a revolution of the wheel *n* driven forward sufficiently  
95 to permit another set to be introduced into the space that is left as this bar again retreats. The rod *E* attached at one end to the driving bar and at the other to the wrist *W* moves the quadrant *C* at the proper moment. The rod *F* is also moved by the driv-  
100 ing bar *b* while its left hand extremity moves the angle lever *c c*. This lever raises the scraper *A* and allows it to fall at the proper point. The scraper *A* thus allowed to fall remains in contact with the molds by the  
105 effect of its own weight and if this should be found insufficient a spring or its equivalent may be interposed for that purpose.

*H* is another rod attached to a wrist at the upper extremity of a double crank which  
110 moves around the axle *q*. This rod has its other extremity attached to a wrist *t' t'* by



which means a reciprocative motion is given to the scraper A A. That scraper when retreating to the right is turned in such a position as to rise above the mold but is brought  
5 down upon the molds when it moves from right to left. The changes of position are caused by studs as represented in Fig. 2.

The shutter B is held in place by a forked brace R which is sustained in position by  
10 the coiled spring S' (Fig. 2). This brace stands vertically upon this shutter and no upward pressure will open that shutter while that brace remains in that position. When the shutter B is to be raised, a shoulder upon the scraper A strikes the end of  
15 the lever L by which means the brace R is pressed backward so as to allow the shutter to open.

I make no claim to the hopper of the ma-

chine nor to the manner of grinding and 20 working the clay; but

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

1. I claim the safety openings D, in combination with the quadrant C, arranged 25 and operating in the manner and for the purpose specified.

2. I claim the shutter B operated by the fork R, spring S' and bar L in the manner 30 above represented.

3. I claim the manner of leveling the mortar in the molds by means of the two scrapers A and A A as shown in the foregoing specification.

JOHN F. SCHUFFENECKER.

Witnesses:

HERMAN ROTHERT,  
PH. ADLETA.