J. C. KELLEY.

BRICK MACHINE.

APPLICATION FILED OCT. 1, 1913.

1,106,456.

Patented Aug. 11, 1914.

3 SHEETS—SHEET 1.

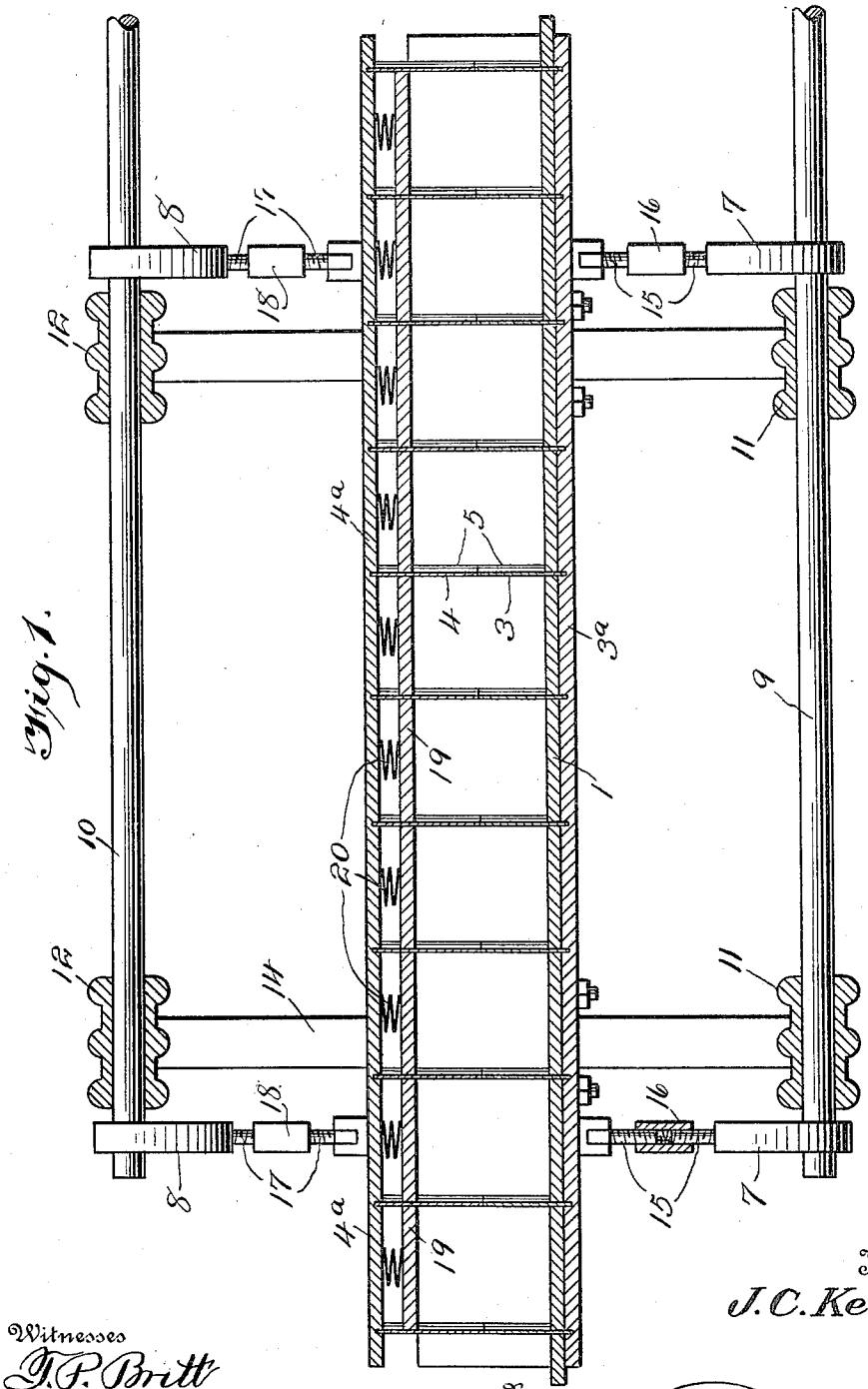


Fig. 1.

Witnesses

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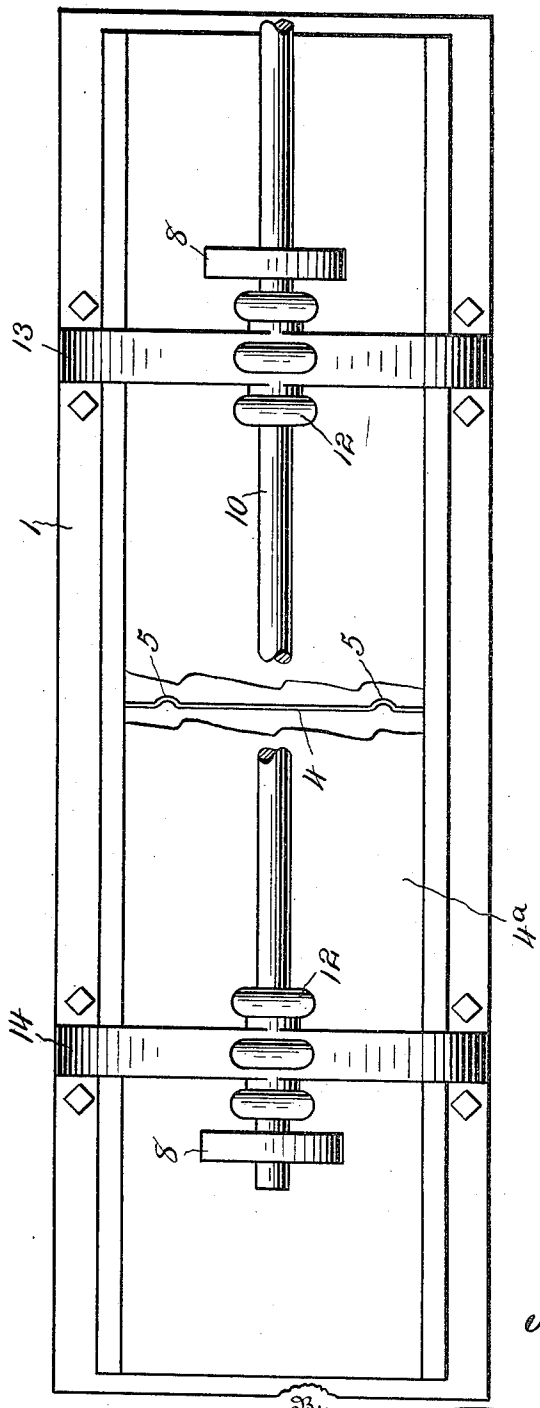
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3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

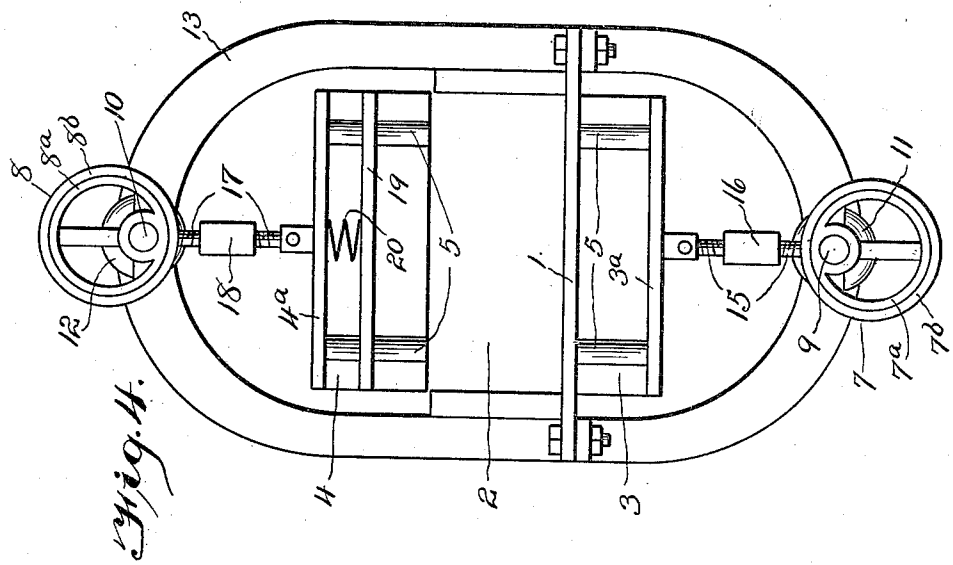


Fig. 4.

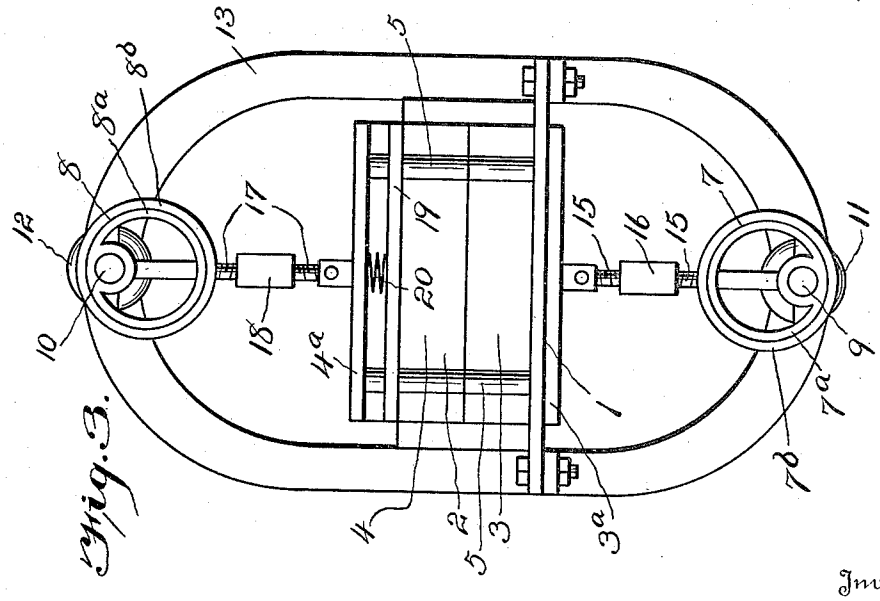


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN C. KELLEY, OF TERRE HAUTE, INDIANA.

BRICK-MACHINE.

1,106,456. Specification of Letters Patent. Patented Aug. 11, 1914.

Application filed October 1, 1913. Serial No. 792,825.

To all whom it may concern:

Be it known that I, JOHN C. KELLEY, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Brick-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in brick machines, more especially that type for making bricks with lugs or projections thereon, while it is equally adapted for making bricks of the usual outline.

The invention has for its object to facilitate the molding operation of the clay into brick-form and with lugs, offsets or projections thereon, or without any offsets, or so as to form the plain faced brick.

A further object is to provide for producing the bricks with clean-cut angular or corner edges and a smooth impressed surface or finish.

A still further object is to do away with severing the column of clay or material fed from the brick machine by the use of wires and the like, as in forming the same into brick-form and the disadvantages arising therefrom.

A still further object is to carry out the aforesaid ends in a simple, expeditious, inexpensive and effective manner.

The invention therefore consists of certain instrumentalities and features of construction substantially as hereinafter fully disclosed and defined by the appended claims.

In the accompanying drawing is illustrated the preferred embodiment of my invention wherein it will be understood that various changes and modifications of the detailed construction and arrangement of parts may be made without departing from the spirit of the invention and in which drawing;—

Figure 1 is a sectional elevation of my invention. Fig. 2 is a broken plan view thereof, the broken away portion providing for viewing a clay-severing member or cutter, the latter being seen from the top edge. Figs. 3 and 4 are end elevations of the machine, with the operative parts in different positions.

In carrying out my invention, I suitably support the various operative parts upon a frame-work 1, juxtaposed to the outlet or discharge opening of the brick machine (not shown) so that the issuing column of clay or material will be received within the molding chamber 2 of suitable general rectangular outline, as shown in the several figures.

Two series or pluralities of clay-severing cutters or members, designated generally as 3 and 4, respectively of rectangular plate-like outline, with outwardly curved or rounded formations or extensions 5 for forming lugs upon the resultant products or contents of the molds, are arranged to move vertically within the chamber 2, the effective or opposed edges of said cutters normally meeting or in engagement about in the longitudinal median plane of said chamber, thus providing for producing the brick-formations by a cutting action both from above and from below. The two plurality cutters are carried by plates or members 3^a and 4^a respectively and are actuated by eccentric connections 7 and 8, between said plates and upper and lower shafts 9 and 10 suitably driven and hung or journaled in hangers or bearings 11 and 12 respectively, suitably supported in yokes 13 and 14 secured to the frame 1.

The screw-threaded member or connections 15, 16, 17 and 18 are provided for suitably adjusting the cutters as circumstances may require as for instance in taking up wear or compensating for lost motion, or for other causes.

A plurality of supplemental plates 19 are arranged intermediate the upper plurality of clay-cutters and in continuous alinement with each other as seen particularly in Fig. 1 and are suitably spaced below said plate 4^a, said supplemental plates 19 being suspended from the aforesaid plate by means of resilient members or springs 20. The plates 19 provide for impressing or compressing the upper surface of the clay or contents of the molds at the same time said clay is being subjected to the cutting action of the cutters for imparting a smooth surface or finish to said contents, and clean cut angular or corner edges, each compressing or impressing action of said supplemental

plates being controlled by the springs 20, said plates being subjected to the action or pressure of said springs as the plate 4 of the upper cutters is making its downward stroke, as will be appreciated. It will be noted that as the springs 20 are themselves, compressed or contracted by each downward movement or stroke of the cutter-carrying plate 4, upon the up-stroke or movement of said plate, the recoil or relax action of said springs will deliver a downward movement to said supplemental plates, thus automatically effecting the requisite spacing-off of the latter from the cutter-carrying plate, as is apparent.

It is obvious that, the requisite quantity or column of clay being fed from the brick machine into the chamber 2, upon the cutters 3 and 4 making their respective strokes, the lower series or plurality of cutters moving upwardly and the upper series or plurality moving downwardly, said clay will be severed along parallel lines at predetermined points, said cutters meeting at the longitudinal median plane or line of said chamber, accordingly effecting the severing of said clay into blocks of rectangular outline, or brick formation. This conjoint action of the oppositely moving series of cutters, it will be seen, has the effect to expedite and effectively perform the severing of the clay into the required outlines as indicated, in addition to facilitating such operation as will be appreciated.

As previously stated, the supplemental plates 19, simultaneously with severing the clay, also impart to the upper surface of the latter a smooth finish, and clean cut angular or corner edges to the resulting rectangular brick-formation. Also it is observed that as hereinbefore intimated, the device is equally adapted for making other types of bricks including the usual type or otherwise.

Having thus fully described my invention what I claim and desire to secure by Letters Patent is—

1. A device of the type described, including a chamber a series of oppositely moving clay severing members positioned within said chamber, said severing plates meeting at the inner ends of their inner strokes or movements at the longitudinal center of said chamber, plates carrying said severing members and means for actuating said clay severing members comprising driven shafts and eccentric screw-threaded and sleeve connections between said cutter-carrying plates and said shafts.

2. A device of the type described including a chamber, an upper and a lower series of edgewise disposed cutters carried by movable plates external of said chamber, said cutters being positioned to meet at the ends of their inner strokes at the longitudinal center of said chamber supplemental resiliently suspended plates positioned between the upper series of cutters to impress the upper surface of the contents of said chamber as the inner edges of said cutters meet, for imparting a smooth or finished upper surface to said contents, and means for actuating said cutters.

In testimony whereof, I affix my signature, in presence of two witnesses.

JOHN C. KELLEY.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."