J. G. BARBOUR.

BRICK CUT-OFF TABLE.

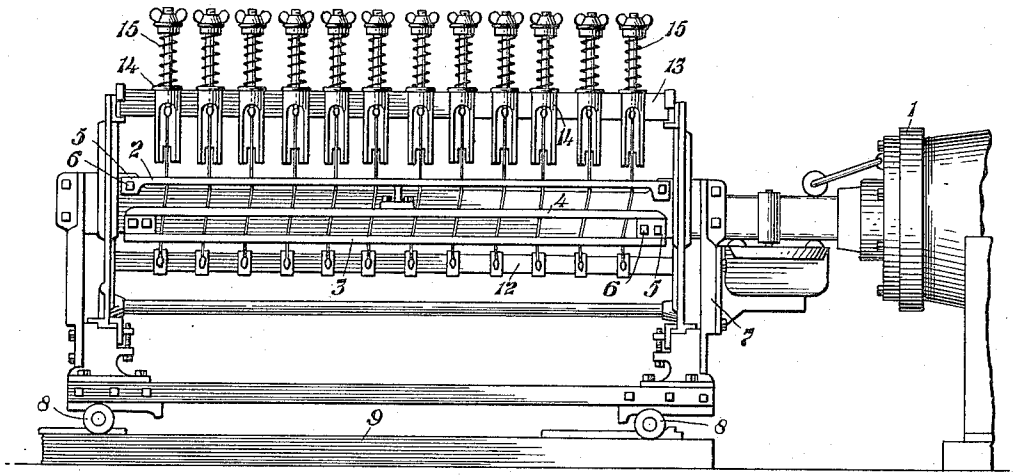
APPLICATION FILED APR. 22, 1912.

1,152,873.

Patented Sept. 7, 1915.

3 SHEETS—SHEET 1.

Fig. 1.



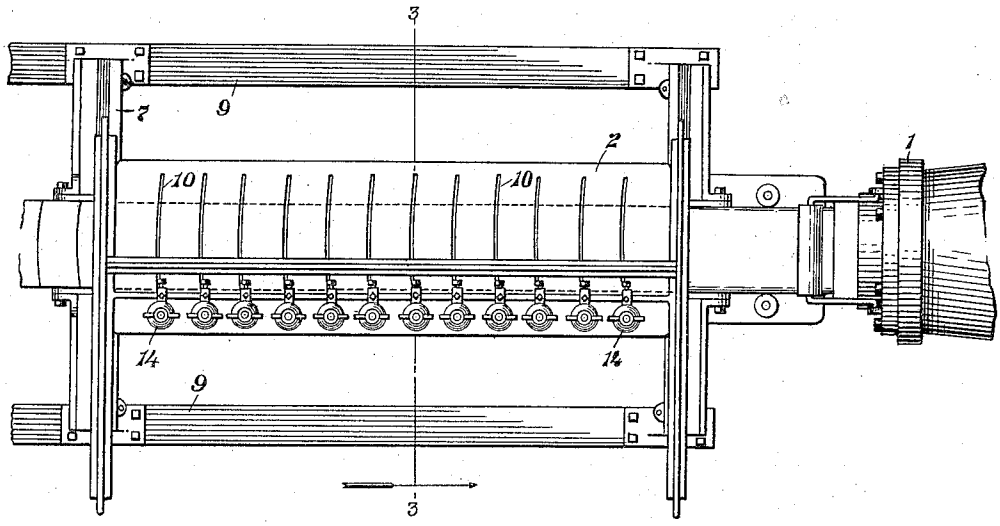


Fig. 2.

Witnesses

J. W. Bishop.

Sylvia Boron.

Inventor

James G. Barbour.

By Bond & Miller

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

J. G. BARBOUR.

BRICK CUT-OFF TABLE.

APPLICATION FILED APR. 22, 1912.

1,152,873.

Patented Sept. 7, 1915.

3 SHEETS—SHEET 2.

Fig. 3.

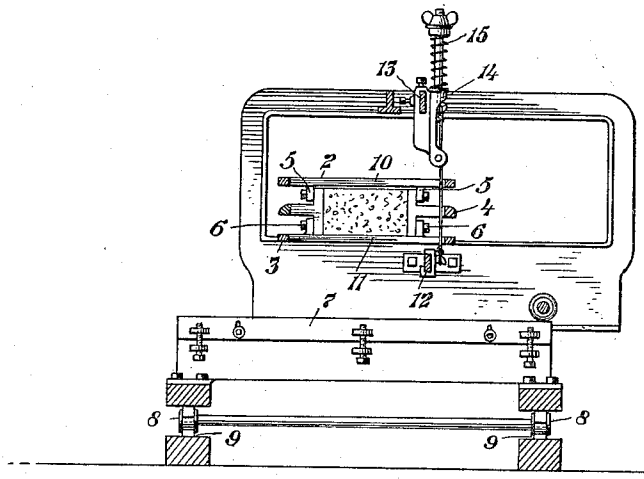


Fig. 4.

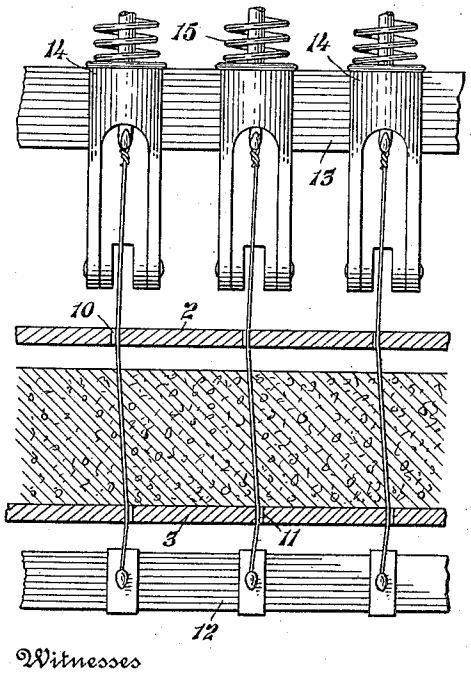
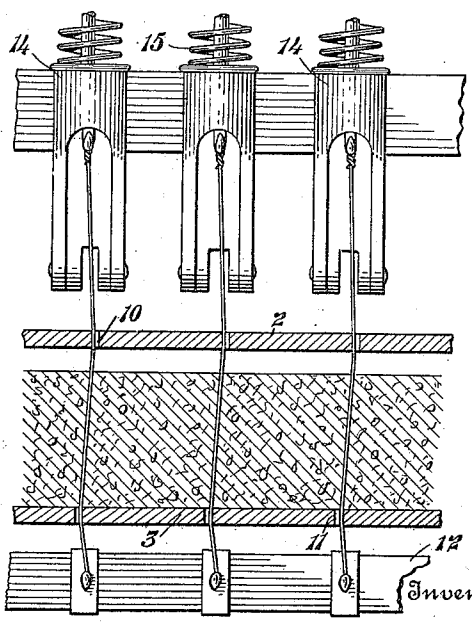


Fig. 5.



Witnesses

J. W. Bishop.

Sylvia Boron.

Inventor

James G. Barbour.

By Bond & Miller

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

J. G. BARBOUR.

BRICK CUT-OFF TABLE.

APPLICATION FILED APR. 22, 1912.

1,152,873.

Patented Sept. 7, 1915.

3 SHEETS—SHEET 3.

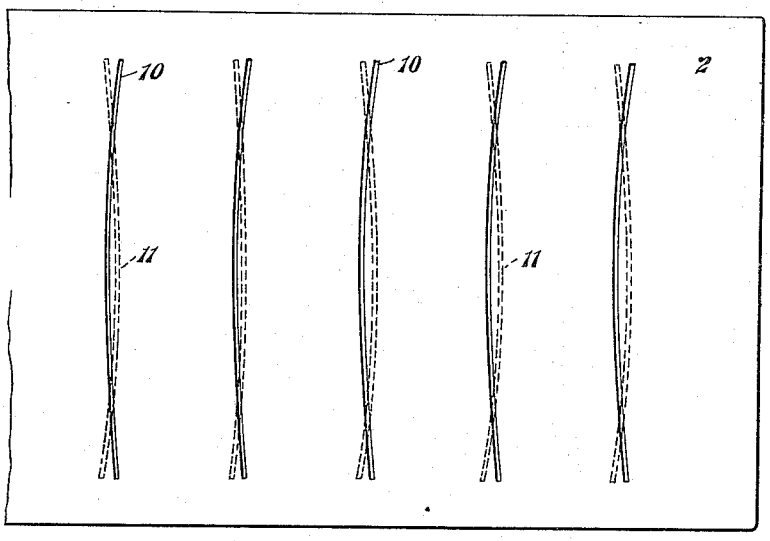


Fig. 6.

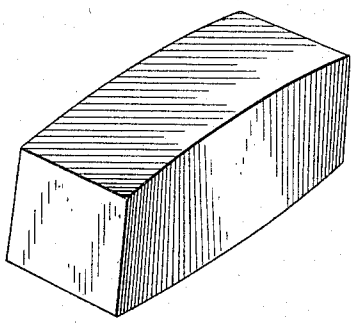


Fig. 8.

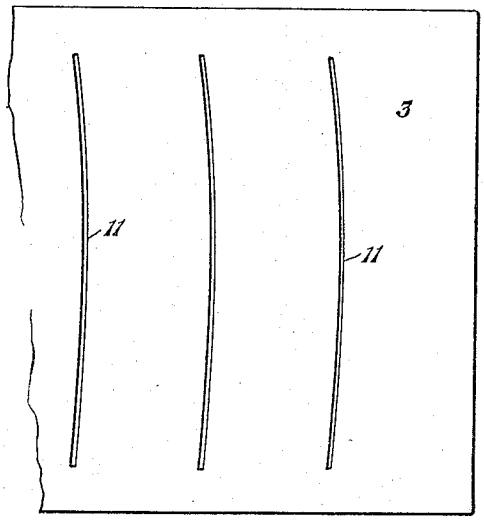


Fig. 7.

Inventor

James G. Barbour.

By Bond & Miller

Attorneys

Witnesses

J. H. Bishop.

Sylvia Boron

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES G. BARBOUR, OF CANTON, OHIO.

BRICK-CUT-OFF TABLE.

1,152,873. Specification of Letters Patent. Patented Sept. 7, 1915.

Application filed April 22, 1912. Serial No. 692,297.

To all whom it may concern:

Be it known that I, JAMES G. BARBOUR, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Brick-Cut-Off Tables, of which the following is a specification.

The present invention relates to brick cut off tables wherein peculiar shaped brick are cut by a wire or a series of wires passing transversely through a column of clay, the column of clay resting and moving upon a platen or support, above which column of clay is located an upper or top platen arranged parallel with the clay column supporting platen.

The objects of the present invention are, first, to provide means for guiding the brick cutting wire or wires and second, to so guide the wire or wires that the column of clay will be cut into blocks of the desired size, the faces of which are provided with what might be termed opposite concaved and convexed faces, the convexity and concavity of the faces being divided about midway between the longitudinal centers of the brick or blocks. I attain these objects together with other objects readily apparent to those skilled in the art by the construction and arrangement of the various devices illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of the cut off table showing the column forming die. Fig. 2 is a top plan view of the same. Fig. 3 is a transverse vertical section on line 3—3, Fig. 2. Fig. 4 is a longitudinal vertical section showing the position of the cutting wires at their positions midway between the ends of the brick or substantially so. Fig. 5 is a similar view showing the position of the wires at the beginning of the cut or at the end of the cut. Fig. 6 is a plan view showing a portion of the top platen illustrating the slots in the lower platen in dotted lines. Fig. 7 is a top plan view of a portion of the bottom or clay supporting platen. Fig. 8 is a perspective view of a cut brick or block produced.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawings, 1 represents the die which is connected to an ordinary brick machine which machine within itself forms no specific part of the present invention. The top platen 2 and the bottom platen 3 are connected to the thrust bars 4 by means of the flanges 5 and the clamping bolts 6 or their equivalents, the only object and purpose being to space the platens 2 and 3 so that the column of clay will pass between the two platens, said platens being so arranged with reference to each other that the upper platen will be spaced a short distance from the top of the column of clay, this being preferable as by so spacing the platens there will be no frictional contact as between the upper face of the column of clay and the bottom or under side of the top platen 2. These platens 2 and 3 are carried by the thrust bars 4, which thrust bars are connected to the movable frame 7, which frame within itself may be of the ordinary construction and is mounted upon suitable traveling rollers or wheels 8, which travel back and forth upon suitable tracks or ways 9. It will be understood that the frame 7 together with the different parts carried by said frame must necessarily travel in unison with the travel of the clay column adjusting the die of the brick machine during the time the cutting wires are passing through the column of clay and in order to accomplish this simultaneous movement of the frame carrying the cutting wires and the column of clay the usual mechanism for intermittently and automatically moving the frame with the column of clay must be provided but such mechanism is well known in the art and has no specific reference to my present invention and for that reason such mechanism is not illustrated but it will be understood that in order to carry out the complete working of a brick cutting machine such mechanism must necessarily be present.

The top platen 2 and the bottom platen 3 are provided with the curved slots 10 and 11, which slots are formed of sufficient length to allow the cutting wires to move back and forth sufficient distance to pass through the column of clay. For the purpose of producing a brick or block such as shown in Fig. 8 the curved slots 10 and 11 are arranged as shown in full lines and in dotted lines Fig. 6; that is to say the slots in the lower platen are curved in the opposite direction from the slots in the upper platen or vice versa.

It will be understood that as the cutting wire or wires are passed through the slots

10 and 11, the cutting wire or wires will follow the curvature of the slots and by reason of the fact that the slots in the lower platen are curved in the opposite direction from the slots in the upper platen the wire or wires will change position during the movement of the wire or wires, the movement being such as to give to the faces of the brick, the curvature illustrated in Fig. 8. In Fig. 4 the wires are shown in their positions assumed about midway between the extreme movements of the wires and in Fig. 5 the wires are shown in their positions assumed at the beginning of the cut or at the formation of a cut. By providing curved slots in the top and bottom platens and spacing, said platens from each other a sufficient distance to allow a column of clay to pass between said platens, the wire or wires will in a sense be oscillated, that is to say the lower portions of the wire will be moved through the arc of a circle and the upper portion of the wire will be moved in a similar arc but of opposite curvature, thereby producing a rocking movement to the wire or wires, which rocking movement cuts convexed and concaved surfaces upon the faces of the brick, the concavity and convexity decreasing in degree toward the longitudinal centers of the brick.

For the purpose of holding the wires in proper tension the bars 12 and 13 are provided, which bars are held in proper spaced relationship with reference to each other, the bar 12 being provided with means for attaching the lower ends of the wires and the bars 13 being provided with the usual connecting heads 14, which are provided with the springs 15, but these parts are common in brick cut off tables and need no specific description as the only object is to hold the wires in proper tension and so far as the present invention is concerned may be of any well known mechanical construction.

It will be understood that by curving the slots 10 and 11 in opposite directions as shown in dotted lines Fig. 6, said slots if placed in the same horizontal plane would intersect each other a short distance from their ends, but owing to the fact that the platens containing said slots are spaced from each other the actual intersection of the slots does not take place but they cross each other in different horizontal planes so that the ends of the slots are located in different vertical planes, by which arrangement the cutting wire or wires are not in a true vertical position at any time, except when the wires are at the points where the slots cross each other in different horizontal planes.

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

In a brick cut off table, a cut off frame, a lower platen adapted to support a column of clay, said platen provided with a series of transverse curved slots, an upper platen located above said column of clay, said upper platen provided with a series of transverse, oppositely curved slots, a bar adapted to reciprocate transversely above the clay column, a second bar adapted to reciprocate transversely beneath the clay column, and wires carried between said bars, said wires located through the oppositely curved slots in the upper and lower platens.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

JAMES G. BARBOUR.

Witnesses:
JOHN H. BISHOP,
F. W. BOND.

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