

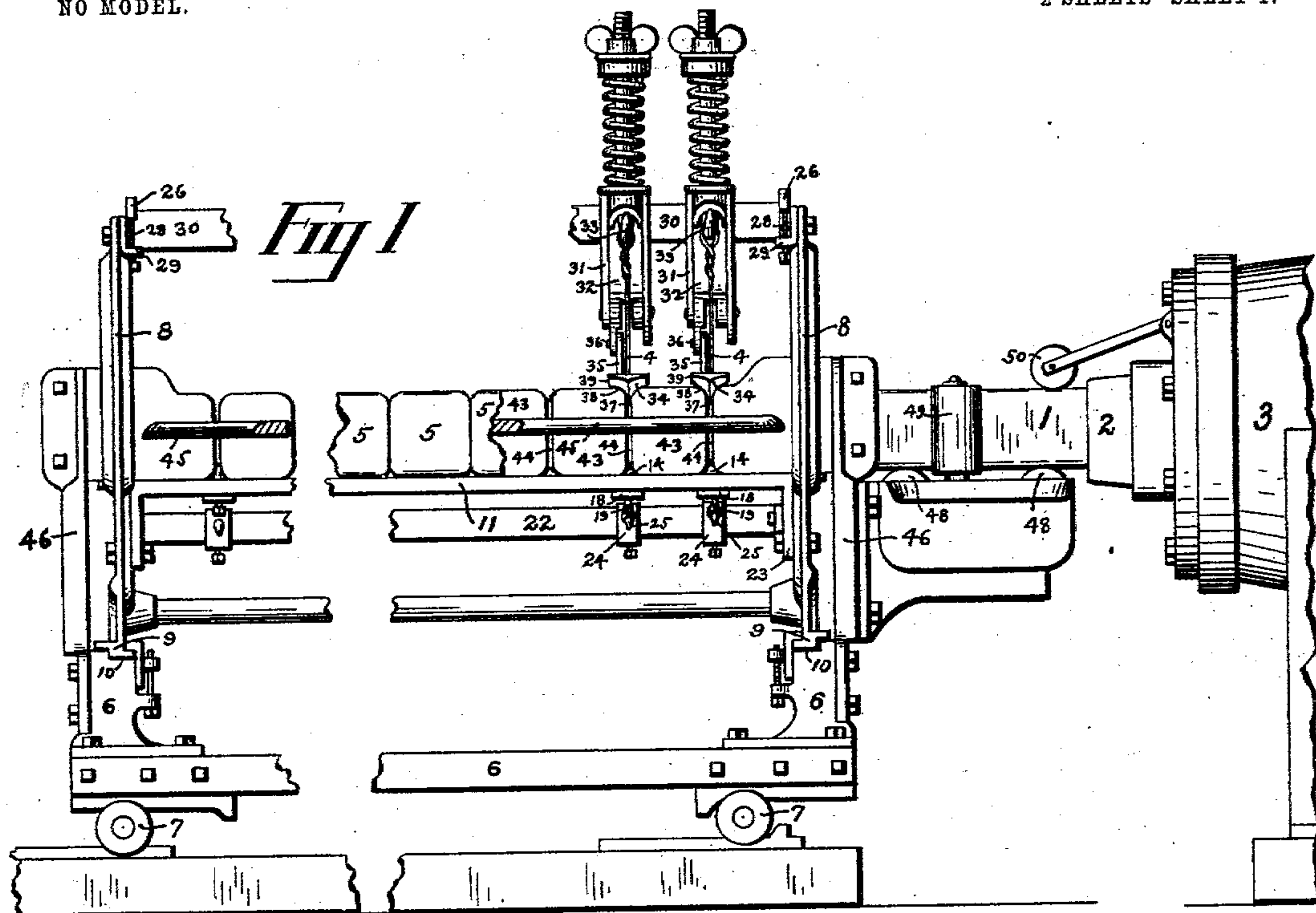
No. 720,797.

PATENTED FEB. 17, 1903.

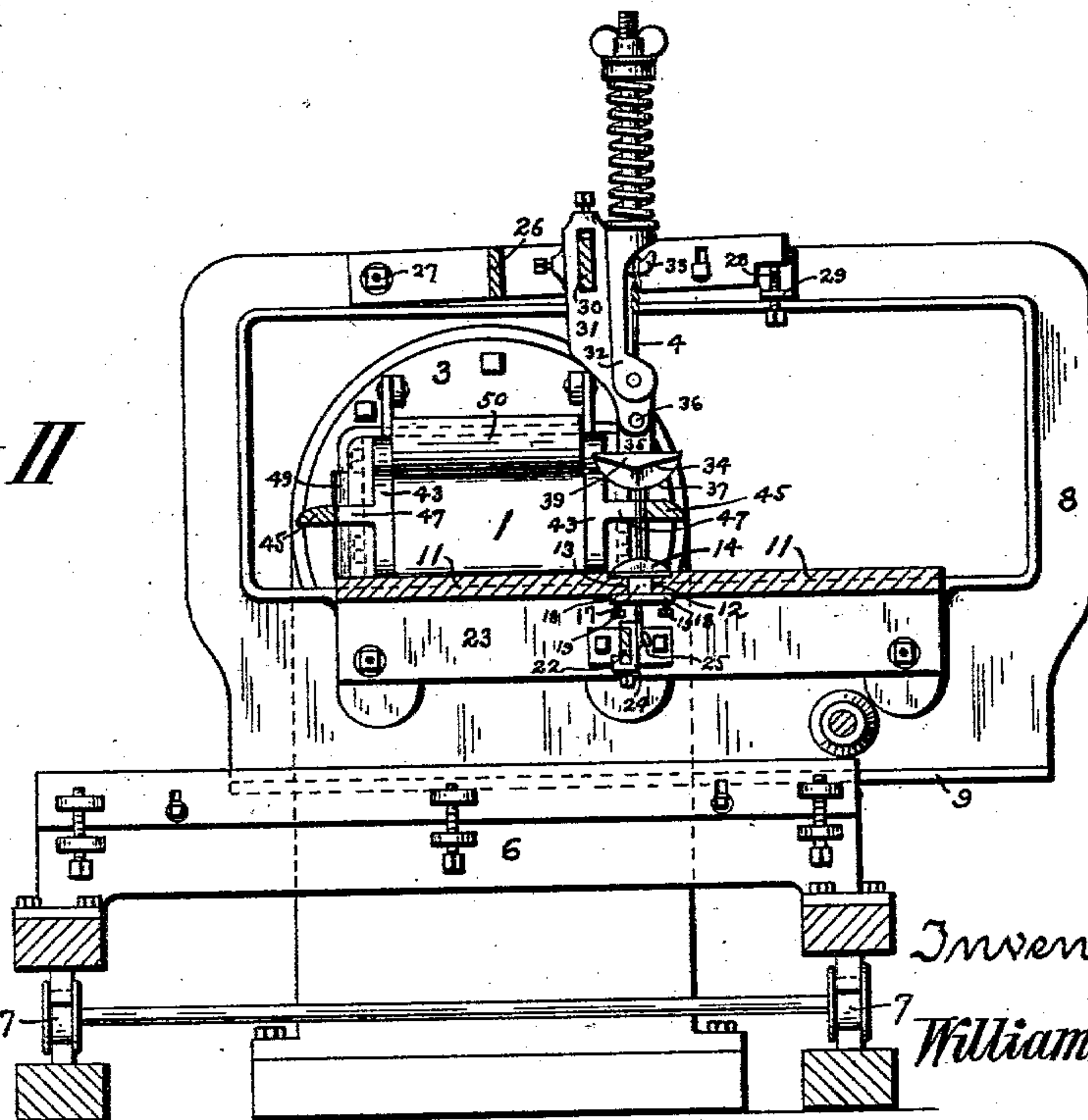
W. FREY.  
BRICK CUT-OFF TABLE.  
APPLICATION FILED OCT. 11, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



*Fig II*



Witnesses;  
Ed Nelson  
Elsie F. Mallory.

Inventor;  
William Frey,  
By Harry Freas, Attorney.

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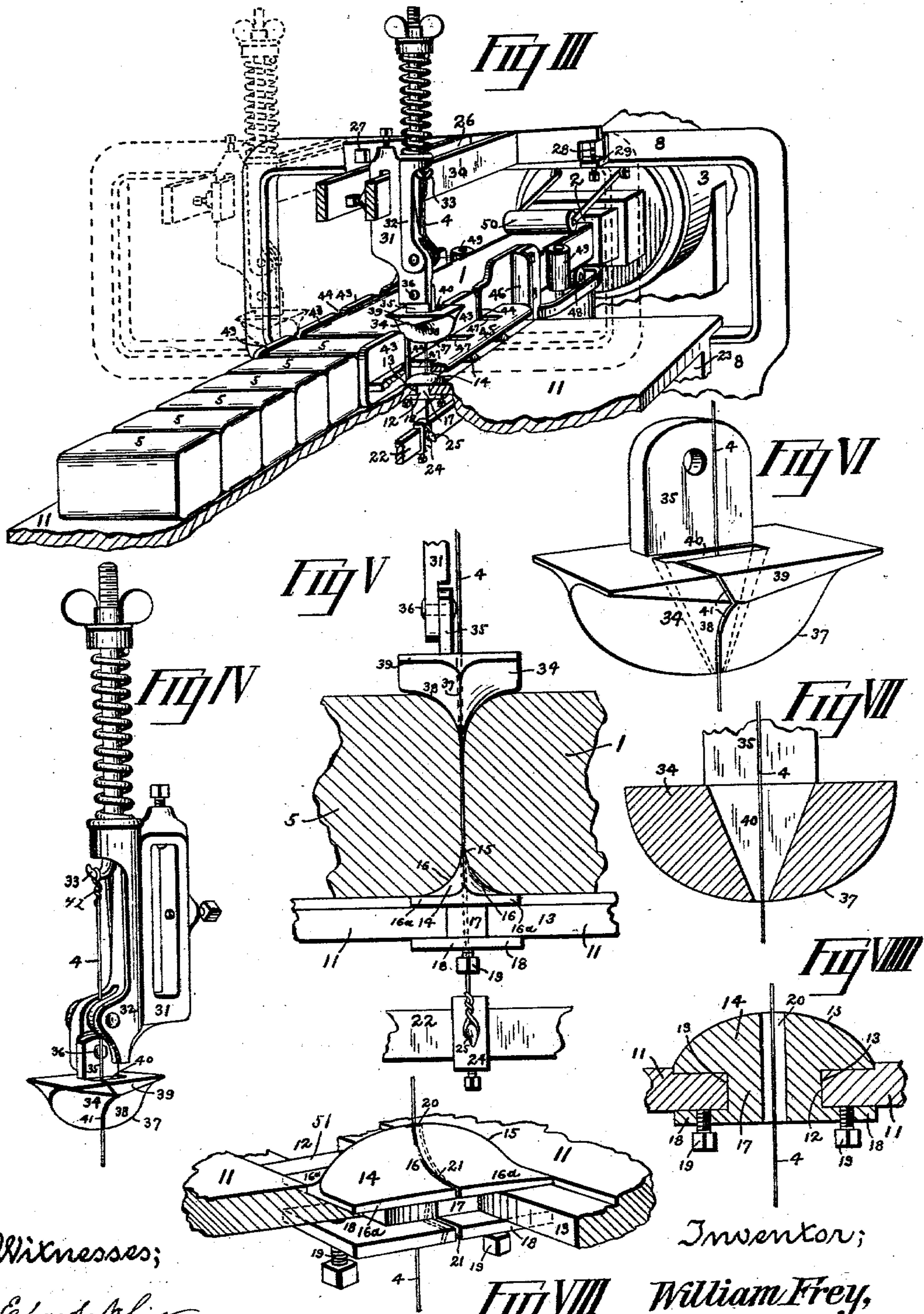
W. FREY.

BRICK CUT-OFF TABLE.

APPLICATION FILED OCT. 11, 1902.

2 SHEETS—SHEET 2.

NO MODEL.



Witnesses;

Edward J. Schuler

Elsie F. Mallory.

Inventor;

William Frey,

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# UNITED STATES PATENT OFFICE.

WILLIAM FREY, OF CANTON, OHIO.

## BRICK-CUT-OFF TABLE.

SPECIFICATION forming part of Letters Patent No. 720,797, dated February 17, 1903.

Application filed October 11, 1902. Serial No. 126,821. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM FREY, 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.

My invention relates to tables for cross-cutting a clay column for making brick or block, and has for its general object the rounding of the upper or lower or both edges of the brick at the same time the cut is made. I attain this object by the mechanism and construction illustrated in the accompanying drawings, in which—

Figure I is a side elevation of the cut-off table, showing the end of a brick-machine and the clay column emanating therefrom; Fig. II, a vertical cross-section of the same; Fig. III, a detached perspective view of part of the same; Fig. IV, a detached perspective view of one upper wire bracket and lever, showing an upper rounding-blade; Fig. V, a fragmentary section showing both rounding-blades; Fig. VI, a detached perspective view of the upper rounding-blade; Fig. VII, a vertical longitudinal section of the same; Fig. VIII, a detached perspective view of one lower rounding-blade and its mode of attachment, and Fig. IX a vertical longitudinal section of the same.

Similar numerals refer to similar parts throughout the drawings.

In the manufacture of brick by the stiff-mud process the clay column 1 emanating from the die 2 of the brick-machine 3 is cut across by wires, as 4, at suitable intervals for forming the brick 5. The body 6 of the cut-off table usually rests on wheels or rollers, as 7, on which the table moves endwise a short distance with the clay column while the cut is being made and on which it is returned to its normal position between the cuts. At each end of the cut-off table is a cross-frame 8, which frames surround the clay column and are provided with the slides 9, which travel in the grooves 10 in the body of the table, by which means the frames can travel back and forth crosswise of the table in making the several cuts. These parts or similar ones are well known in connection with brick machinery and have no part in my

present invention except as hereinafter mentioned. In cutting through the clay column the wires leave rough and ragged edges on the brick, which roughness on the upper edges of the brick has been successfully overcome by the brick-edge-smoothing blade described in my United States Letters Patent No. 705,064, of July 22, 1902; but the roughness on the lower edges of the brick has not heretofore been overcome, nor has it been possible to round the edges of a wire-cut brick to a shape corresponding with that usually formed by pressing or re-pressing the brick.

The table-plate 11 extends between the lower sides of the cross-frames, to which frames the plate is attached, and it can be formed of one plate with the longitudinal slot 12 in the median line or of two plates side by side with their inner edges separated to form such a slot. The lower rounding-blades 14 are attached in the longitudinal slot, along which they are spaced apart the proper distance for the width of the brick or block to be cut. The cutting edges 15 of the lower blades project transversely above the surface of the table-plate to cut across the lower side of the clay column and are preferably curved outward and downward from the median line to the plate at either end. On either side of the cutting edges the lower blades curve downward and outward to the plane of the surface of the table-plate, thus forming the concave sides and the wings 16<sup>a</sup> on the sides of the blades. The body of the blades proper is preferably formed slightly thicker in the middle part, so as to present an inclined face both ways to the clay column in its operation. The recesses 16 are preferably formed in the table-plate on either side of the longitudinal slot to receive the ends of the lower blades and their wings, so that the ends of the wings neatly join the surface of the plate. The shank 17 of each lower blade extends down through the longitudinal slot and terminate in the flanges 18, which flanges extend outward under the table-plate on either side of the slot. Through these flanges are provided the screws 19, by means of which the blades are firmly set in any desired position and can also be readily moved from one point to another along



the longitudinal slot. The slot 20 for the cutting-wire extends through the body of the lower blade from the cutting edge to the back of the blade and is preferably somewhat elongated to accommodate the natural bend or spring of the wire when making the cuts, and the slit 21 is provided in the side of the blade into the slot, through which slit the wire can be entered sidewise into the slot. This slit is formed vertical, as illustrated, or can be inclined, as shown by broken lines. The usual lower wire bar 22 extends between the cross-frames below the table-plate, to which frames it is attached either directly or by the intervening depending flanges 23 of the table-plate, as illustrated. The ordinary wire brackets 24 are adjustably located on the lower wire bar and are provided with the usual hooks 25 for attaching the wire. The top frame 26 extends between the upper parts of the cross-frames, and one corresponding corner at each end is pivoted to the cross-frames, as at 27, and the opposite corners rest on adjusting-screws 28, which screws are located in the brackets 29 on the cross-frames, and by means of which adjusting-screws the top frame can be raised or lowered on its pivotal points. In the top frame is provided the usual upper wire bar 30, on which bar the ordinary upper wire brackets 31 are adjustably located, and on which brackets are pivoted the usual wire levers 32, with their spring tension-hooks 33. The upper rounding-blades 34 depend by their shanks 35 from the upper wire brackets, to which they are preferably attached by pivots, as 36. The cutting edges 37 of the upper blades depend transversely from their shanks to cut across the upper side of the clay column and are preferably curved outward and upward from the median line to the ends of the blades. On either side of the cutting edges the upper blades curve upward and outward, thus forming the concave sides 38 and the wings 39. The body of the blades proper, and especially of the wings, is preferably formed considerably thicker in the middle parts, so as to present an inclined face both ways to the clay column, even when the blade is swung on its pivotal point in its operation. The slot 40 for the cutting-wire extends through the body of the upper blade and is preferably elongated at the top and converges to a small aperture in the middle of the cutting edges, which shape of the slot permits the blade to go and come by swinging on its pivotal point with the bending of the wire when making the cuts, and the slit 41 is provided in the side of the blade into the slot, through which slit the wire can be entered sidewise into the slot. The slit is preferably inclined to enter near one edge of the slot, as illustrated, but can be made vertical, if desired.

The cutting-wires 4 are provided with the usual loops 42 on each end, by means of which the wires are attached to the hooks 25 below and to the tension-hooks 33 above in

the usual manner, and the wires are entered in the slots 20 and 40 of the lower and upper blades through the slits 21 and 41, respectively.

A series of plates 43 are provided on either side of the clay column, between which plates the column is passed. The side plates correspond in width with the thickness of the brick or block to be cut, and the narrow intervals 44 occur between them, through which intervals the wires pass in making a cut, and the plates are rounded at the corners sufficiently to permit the free passage of the upper and lower rounding-blades. The side plates are held in position by means of the rib-plates 45 on the outer sides, on which the side plates are respectively joined or attached. The rib-plates are in turn attached to the body of the cut-off table at either end by means of the supporting-posts 46, located outside of the cross-frames, and the rib-plates are provided with the slots 47, which open into the intervals between the side plates and receive the cutting-wires at the end of each cut. The cross-frames being thrown to one side, with the cutting-wires passing through the rib-plate slots outside of the side plates, when the clay column emerges from the die of the brick-machine it passes over the usual lubricating-rollers 48 onto and along one side part of the table-plate and between the side plates. The column is also lubricated on the sides and top by the usual lubricating-rollers 49 and 50. When the column has run out to the end of the cut-off table, the cross-frame, with the attached table-plate, cutting-wires, and rounding-blades, is thrown sidewise on its slides by the usual mechanism for that purpose, (not shown,) and at the same time the cut-off table moves forward on its rollers a short distance with the clay columns during the cut. During this sidewise movement the table-plate slides under the clay column and the wires make a cut across the clay column and emerge into the slots in the rib-plate on the other side of the column. At the same time the upper and lower rounding-blades cut into and across the column above and below, and by means of the concave sides of the blades the edges of the brick so cut are spread and pressed and rounded, as shown more particularly in Fig. V. The shape of the edges can be varied from the substantially quarter-round illustrated to any other desired section, according to the character of the concavity of the sides of the blades and to the depth of the cut made by them. The depth of the cut of the upper blades can be varied by raising and lowering the top frame. In sliding the table-plate under the clay column the column rides across the longitudinal slot on the wings of the lower blades and no further bridging of the slot is needed; but the same can be completely closed over by the use of filling-plates, as 51, between the blades.

The cross-frames, the table-plate, the lower



wire bar, and the top frame together constitute the cut-off carriage of the table and all together move to and fro across the body of the table and across the line of the flow of the  
5 clay column.

It will be understood that the longitudinal slot in the table-plate can be omitted and the lower rounding-blades can be attached along the median line on the plate by any other  
10 suitable means; but I prefer to use the slot for the convenience and facility it gives for inserting the blades and for spacing them along the plate for cutting the various widths of brick and block, and if it is not desired to  
15 round the lower edges of the brick, but merely to smooth them, the lower blade need not have concave sides, but can be beveled or otherwise suitably formed.

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

1. In a brick-cut-off-table carriage, upper and lower wire bars, means for raising and lowering said upper bar, there being hooks on the lower bar and spring tension-hooks on  
25 the upper bar, wires on said hooks, and transverse blades on said upper bar.

2. In a brick-cut-off carriage, cross-frames at the ends of said carriage, there being brackets and screws therein on said cross-  
30 frames, and a top frame between said cross-frames, said top frames being pivoted to the cross-frames on one side, and adjusted by said screws on the other side.

3. In a brick-cut-off table, a body, rib-  
35 plates on said body, side plates at intervals

on said rib-plates on either side of the clay column, there being notches in the rib-plates opening into said intervals, a carriage movable sidewise on said body, there being a table-plate in said carriage adapted to support and slide under said clay column, wires in said carriage operating across the clay column and into said notches, and transverse blades on said table-plate, there being slots in said blades through which said wires are  
40 passed.

4. In a brick-cut-off table, a plate movable sidewise under the clay column, there being a longitudinal slot in said plate, and transverse blades on said plate, there being shanks  
50 on said blades extending through said slot and flanges on said shanks extending under said plate on either side, and screws through said flanges turning against said plate.

5. In a brick-cut-off table, a plate movable  
55 sidewise under the clay column, and transverse blades on said plate, the sides of said blades being concavely curved from their edges.

6. In a brick-cut-off table, a plate movable  
60 sidewise under the clay column, and transverse blades on said plate.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM FREY.

Witnesses:

HARRY FREASE,  
ELSIE F. MALLORY.