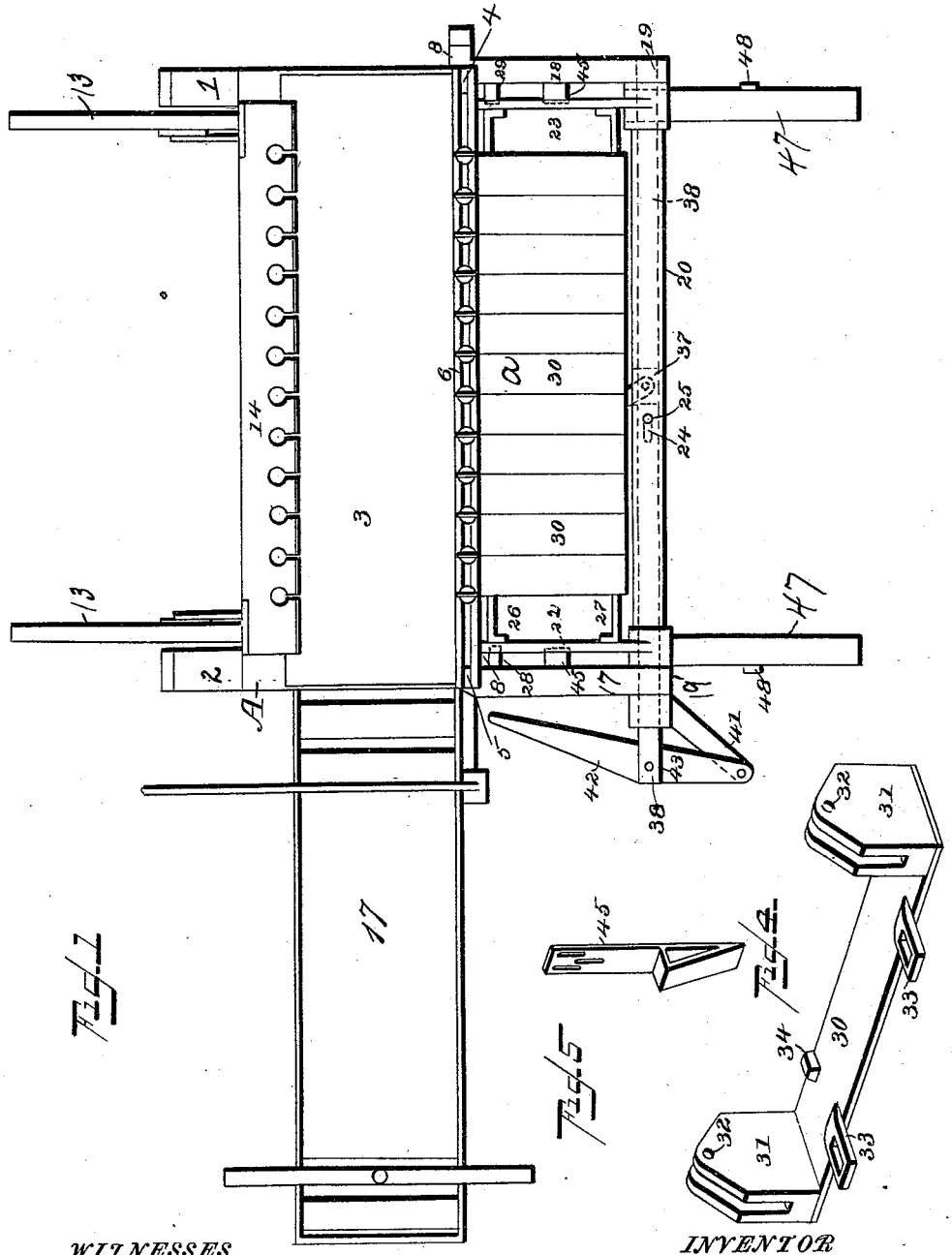
(No Model.) 2 Sheets—Sheet 1.

F. E. FREY.

TILE CUTTING TABLE.

No. 421,692. Patented Feb. 18, 1890.



WITNESSES
F. L. Ousand
Wm. Musser

INVENTOR
Frank E. Frey
by A. G. Heylmun
Attorney

(No Model.) 2 Sheets—Sheet 2.

F. E. FREY.

TILE CUTTING TABLE.

No. 421,692. Patented Feb. 18, 1890.

Fig. 2.

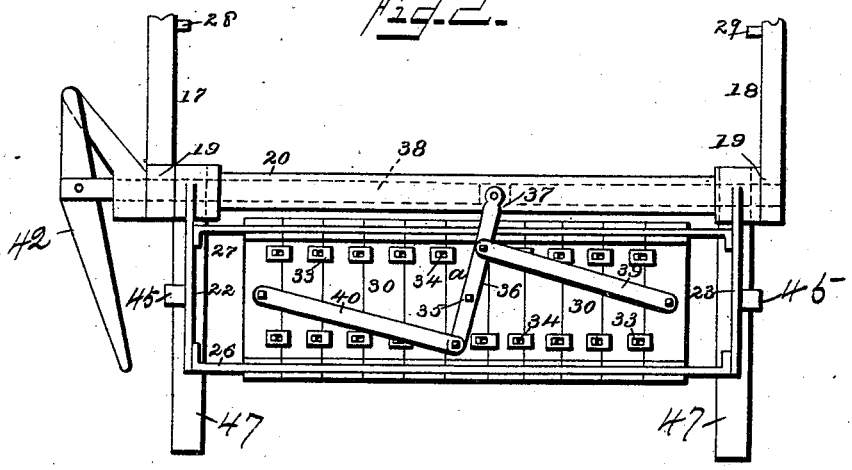
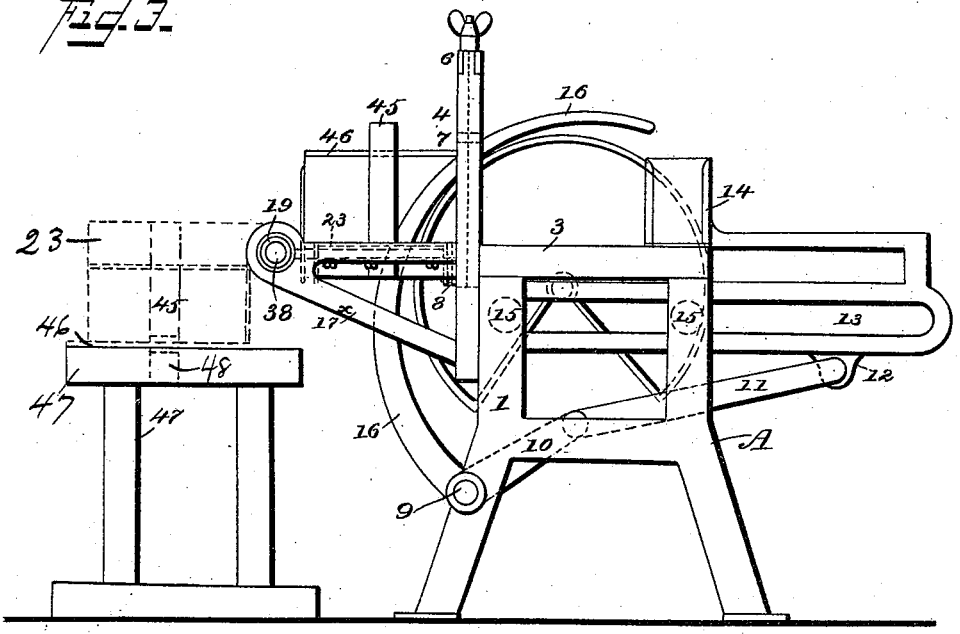


Fig. 3.



WITNESSES

F. L. Ourand

Wm. Musser.

INVENTOR

Fredk E. Frey

by A. G. Huffman

Attorney

UNITED STATES PATENT OFFICE.

FREDERICK E. FREY, OF BUCYRUS, OHIO, ASSIGNOR TO THE FREY-SHECKLER COMPANY, OF SAME PLACE.

TILE-CUTTING TABLE.

SPECIFICATION forming part of Letters Patent No. 421,692, dated February 18, 1890.

Application filed July 27, 1889. Serial No. 318,952. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. FREY, a citizen of the United States of America, residing at Bucyrus, in the county of Crawford and State of Ohio, have invented new and useful Improvements in Tile-Tables for Tile and Brick Machines, of which the following is a specification.

The object of my invention is to provide an improved receiving-platen for the severed forms delivered from the cutting table or platen; and it consists in the improved receiving-platen hereinafter described, whereby the forms, as they are deposited or moved thereon by the cutting-table mechanisms, are moved apart in the direction of the length of the original slab of clay.

I have fully and clearly illustrated my improvements in the accompanying drawings, wherein—

Figure 1 is a top view of a cutting-table having my improved receiving and separating platen attached thereto. Fig. 2 is a bottom view of the receiving and separating platen, it being shown as turned over onto the supports. A portion of the cutting-table is omitted in this figure. Fig. 3 is an end view in elevation of the machine with the separating-platen turned on the supports. Fig. 4 is a detail view of one of the plates of the separable floor of the separating-platen. Fig. 5 is a view of one of the springs to hold the board or plate-platen on which the forms are eventually placed.

In the illustrations I have shown the separating-platen being the subject of this application as attached to a cutting-table of the construction lately invented by me and for which application for patent is pending concurrently herewith, being Serial No. 311,268, filed May 18, 1889, for improvements in brick and tile machines; but it will be perceived that my improved separating-platen may be connected to any cutting-table having mechanism to push or slide the forms onto the platen during the cutting process or thereafter. Because of this general adaptation of the separating-platen it is not deemed essential that the cutting mechanism be described with more than general specificness.

In the drawings, A denotes the frame of the cutting-table, consisting of the end pieces 1 2, having secured thereon a platen 3 in any suitable manner. Projecting from the cutting-table frame at the ends and to one side thereof are two standards 4 5, connected at the top by wire-supporting bars 6, and further strengthened by a cross-bar 7, and below the bed of the cutting-table is arranged a cross-bar 8. (Shown in dotted lines in Fig. 3 of the drawings.) The cutting-wires are adjustably stretched between the bars 6 and 8, being passed through the bar 7, substantially as shown.

Mounted on the table-frame is a shaft 9, having arms 10 secured thereto, which are connected to the connecting-rods 11, having their other ends connected to the lugs 12 on the carrying-frames 13 of the push-bar 14, which is of the construction shown in the drawings. The frames of the push-bars are mounted to run back and forth on rollers 15 on the frame, and the head of the push-bar is slotted, as shown, to run with its face beyond the cutting-wires and push the forms onto the separating-platen. A lever 16 or any suitable connection to power may be applied to the shaft 9 to reciprocate the push-bar over the face of the bed of the cutting-table. A table 17 may be placed between the cutting-table and delivery end of the clay-machine, substantially as shown.

The foregoing-described mechanism is specified, as stated, generally, and no claim is made thereto in this application, because it forms the subject-matter of another application for Letters Patent.

I now proceed to specify the elements, parts, and combination which form the invention I make claim for in this application. Projected from the end pieces of the frame of the cutting-table are two supports $17^{\times}$ 18, formed at their outer ends with bearings 19, in which is mounted a hollow shaft 20. On this shaft 20 are projecting arms 22 23, which constitute the end pieces of the frame of the separable platen. In the hollow shaft may be a slot 24, engaged by a pin 25 on the shaft, arranged in the hollow shaft, which serves to limit the endwise movements of the inner shaft and as a stud to hold the two shafts in relative position when the platen is turned on the bearings. The end pieces or arms 22 23 are connected by bars 26 27, on which the

separable platen rests. The platen-frame rests on lugs or blocks 28 29 on the supports 17 18 when arranged to receive the forms pushed through the cutting-wires by the push-bar.

The separable platen is composed of a number of plates 30, formed with slotted end pieces 31 to take the bars 26 and 27, and are secured against displacement from the bars in being turned by means of pins or bolts 32, projected through the ends of the pieces 31 below the bars. This construction keeps the several plates in position and leaves them free to slide on the bars to the extent intended. The plates 30 are formed with slotted lugs 33, and on the opposite side edge have studs 34, the object being when the plates are arranged to comprise the platen that adjacent lugs and studs shall engage each other, as shown in Fig. 2. A limited play is given to the studs in the slots of the lugs. The central plate, designated by *a*, is made stationary on the frame and formed with a bearing-lug 35 on its bottom, on which is fulcrumed a lever 36, having one end let through a slot 37 in the hollow shaft and connected to a sliding bar or shaft 38, arranged in the bore of the hollow shaft, substantially as shown. At a point intermediate of the connection of the lever to the sliding shaft and its fulcrum on the plate of the platen is pivotally connected one end of a separating-bar 39, and at the outer end of the lever is connected a similar bar 40, which bars have their outer ends respectively connected to the end plates of the platen, substantially as seen in the drawings. On the end of the hollow shaft is fixed an arm 41, to which is jointed a lever 42, having connection at 43 to the sliding rod or shaft 38.

It will be perceived from the foregoing description that after the forms have been pushed through the cutting-wires, and thereby severed, the forms will rest closely together on the platen, and that by moving the lever 42, so as to move the plates of the platen apart, the forms will be separated, leaving spaces between them and in position ready for transferrence to the platen, on which they can be carried to the place desired. To accomplish this manipulation and object, I fix at each end of the separating-platen a spring-catch 45, and after having separated the forms, as specified, I take a plane platen 46, and placing it over the forms between the spring-catches press it down until the ends thereof engage under the jaws of the catches, as indicated in Fig. 3 of the drawings. Then by grasping the lever 42 the loaded platens may be turned over onto the table or support 47, as seen in Fig. 3 in the dotted lines. To release the separating-platens from the platen on the support, there are lugs 48 on the sides of the support, which, as the platens are lowered, engage the spring-catches and spread them apart free from the plate-platen, and so hold the springs, when the separating-platen may be returned to the position on the cutting-table ready to receive another set of forms.

The operation of the machine has been stated in the premises of the description; and having thus specifically explained the principle of my invention, so as to distinguish it from other inventions, I proceed to particularly point out and distinctly claim the parts, improvements, and combinations I claim in my invention, to-wit:

1. The combination of a cutting-table for a tile and brick machine, formed with supports having bearings therein, a separating-platen mounted on a shaft in said bearings and composed of a number of independent sliding plates, and a lever to separate the plates and turn the platen, substantially as described.

2. The combination, with a cutting-table of a brick and tile machine, formed with supports having bearings, of a hollow shaft having a slot in its central part and mounted on said bearings, a sliding bar arranged in the bore of the hollow shaft, a separable platen composed of a number of plates supported by the hollow shaft, levers connecting the said plates to the sliding bar, and a lever to operate the sliding bar and turn the separable platens, substantially as described.

3. The combination, with a cutting-table of a brick and tile machine, of a reversible and separable platen to receive the forms from the cutting-table, and mechanism, substantially as described, for sliding the plates of the platen apart and reversing the platen, substantially as specified.

4. The combination, with a supporting hollow shaft and a sliding bar arranged in the hollow shaft, of a platen-frame supported by the hollow shaft, platen-plates mounted to have a limited lateral movement on the platen-frame, levers connected to the platen-plates and the sliding bar in the hollow shaft, and a lever to slide the sliding bar and turn the hollow shaft, substantially as described, and for the purpose specified.

5. The combination, with the separable and reversible platen, of spring-catches at the ends thereof, a plane platen to engage the spring-catches and hold the forms in place, and a support having releasing-lugs to receive the loaded platen, substantially as described.

6. The combination, with the cutting-table for a brick and tile machine, having side supports formed with bearings and supporting-lugs, of a hollow shaft having a central slot mounted in said bearings, a platen-frame secured to turn with said hollow shaft and rest on the supporting-lugs of the frame, a separable platen composed of a number of plates secured to and arranged to slide on the platen-frame, a series of levers connected to the plates of the platen and the sliding bar on the hollow shaft, catches to engage and hold a platen on the forms, and a lever on the

sliding bar to slide the same and turn the platen over on the receiving-table, substantially as and for the purpose specified.

7. The combination, with the cutting-table of a brick and tile machine, of a reversible and separable platen to receive the forms from the cutting-table, said platen being comprised of a frame mounted on a shaft, a number of plates arranged to slide on the said frame, and mechanism, substantially as described, for pushing the plates of the platen apart and for reversing the platen, substantially as specified.

8. The separable platen herein described, composed of a frame secured to a shaft at one side, side bars to take the plates of the platen, a number of platen-plates having slotted end pieces to engage the side bars of the frame and provided with slotted lugs and studs to engage adjacent plates, and levers to reciprocate the platen-plates.

In witness whereof I have hereunto set my hand in the presence of two attesting witnesses.

FREDERICK E. FREY.

Attest:
W. C. LEMERT,
J. A. FREY.