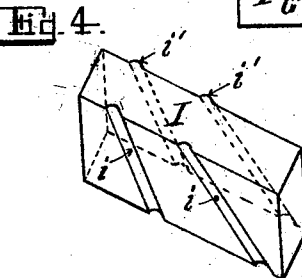
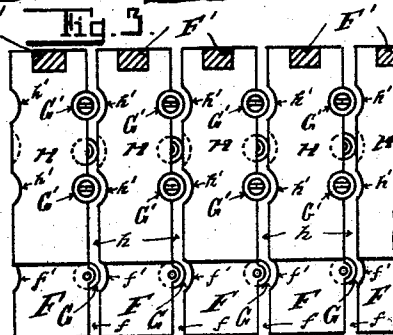
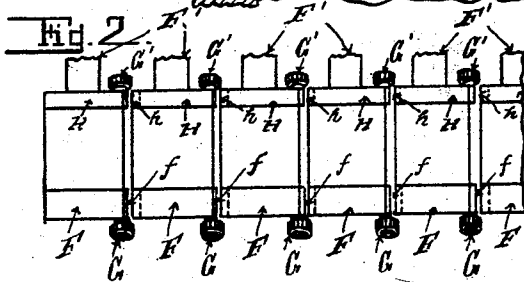


933,536.



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UNITED STATES PATENT OFFICE.

FRANK B. DUNN, OF CONNEAUT, OHIO, ASSIGNOR TO THE DUNN WIRE-CUT LUG BRICK COMPANY, OF CONNEAUT, OHIO, A CORPORATION OF OHIO.

MECHANISM FOR CUTTING WIRE-CUT BRICK.

933,536.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed October 2, 1907. Serial No. 395,584.

To all whom it may concern:

Be it known that I, FRANK B. DUNN, a citizen of the United States, residing at Conneaut, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Mechanism for Cutting Wire-Cut Brick; and I do hereby 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 of reference marked thereon, forming part of this specification.

My invention relates to wire-cut brick, and has for its object the production of wire-cut brick having wire-cut ribs on one side and corresponding wire-cut depressions on the other, and mechanism for cutting such brick.

As is well understood in the art, wire-cut brick are produced by passing one or more wires through a column of clay resting on a platen having slots therethrough for the passage of the wires, as the column of clay is forced out thereon from the clay mixer through a suitable die. To accomplish the desired result I make the slots in the platen irregular so as to vary the line of the travel of the wires therethrough and through the column of clay, from a direct line to an irregular line of travel, thereby leaving wire-cut grooves on one side and wire-cut ribs on the opposite side of each brick cut. A convenient mechanism for producing this result is hereinafter fully set forth and described, and illustrated in the accompanying drawings in which:

Figure 1 is a transverse view in section of an ordinary rotary brick cutter, embodying a form of mechanism for cutting brick made in accordance with my invention. Fig. 2 is a side view of a section of an improved platen, suitable for carrying out my invention, looking in the direction of the arrow *x* in Fig. 1. Fig. 3 is a top or plan view of a section of said improved platen looking in the direction of the arrow *y* in Fig. 1. Fig. 4 is a perspective view of a wire-cut brick made in accordance with my invention.

The brick cutting machine illustrated in the accompanying drawings is of the ordinary type, in which end rings A are rotated in supporting frames B and driven by gears C C'. The frame B having a central bear-

ing D upon which rings D' are mounted and from which cutting wires E extend to bars A' between the rings A. The platen-sections F, upon which the column of clay from the die of the brick machine travels through the cutter, are secured to the central bearing D by means of upwardly extending arm F', between which the rings D' rotate. In operation, the cutting mechanism and platen travel in unison with the travel of the clay column issuing from the die of the brick machine during the cutting operation, and is provided with the usual mechanism (not shown) operating periodically to automatically move said mechanism in the opposite direction from that of the travel of the clay column preparatory to making another cut, all which features are common in brick cutting machines. The novel features which I have added to this mechanism and by means whereof I am enabled to produce wire-cut brick with wire-cut ribs on one side and wire-cut grooves on the opposite side, consist substantially in making the slots *f* in the platen with curved offsets *f'* on one side of the grooves *f*, and opposite said offsets *f'*, I preferably pivot rollers G, so that as the cutting-wires E pass through the slots *f* they contact with the rollers G and are deflected thereby into the offsets *f'*.

To guide the cutting-wires E at the upper edge of the brick, I secure, slightly above the brick, to the arms F' which support the platen-sections F, guide-sections H, parallel to and corresponding in width to the platen-sections F, and the slots *h* between these guide-sections H are also provided with offsets *h'*, and with rollers G' opposite said offsets, so that as the cutting-wires E pass the rollers G' they are deflected into the offsets *h'* so as to produce grooves *i* of equal depth from edge to edge of the brick I on one side, and ribs *j* of equal height from edge to edge of said brick on the opposite side thereof, thus producing a wire-cut brick with transverse wire-cut ribs on one side and wire-cut transverse grooves on the other.

Hereinbefore I have described a suitable form of mechanism for producing wire-cut brick with ribs on one side and grooves on the other. It is obvious however that many forms of mechanism may be devised for producing wire-cut brick with transverse ribs and grooves thereon without departing from the spirit of my invention. Therefore hav-

ing described suitable mechanism for producing wire-cut brick having transverse grooves in one side and transverse ribs on the other, what I claim as new and desire to secure by Letters-Patent is:

1. The combination in a machine for wire-cutting brick from a continuously moving column of clay comprised substantially of mechanism operating one or more tensioned cutting wires, a transversely slotted platen upon which the clay-column is supported and through which the tensioned cutting wires pass traveling in unison therewith and with the clay column during the cutting operation, and means in said platen slots for deflecting the cutting wires as they pass through said slots and a column of clay supported on said platen, substantially as set forth.

2. The combination in a machine for wire-cutting brick from a continuously moving column of clay comprised substantially of mechanism automatically operating cutting wires, a transversely slotted platen mounted in the path traversed by said cutting wires and traveling in unison therewith and with the clay column during the cutting operation, and offsets in said platen slots for deflecting the cutting wires from a straight line of travel during their passage through said slots and a clay column supported on said platen, substantially as set forth.

3. The combination in a machine for wire-cutting brick from a continuously moving column of clay comprised substantially of automatically operated cutting wires, a transversely slotted platen mounted in the path traversed by said cutting wires and traveling in unison therewith and with the column of clay during the cutting operation, a transversely slotted guide above the transversely slotted platen, and offsets in the slots in said platen and in the slots in said guide, whereby the cutting wires are equally de-

flected from a direct line of travel through said slots during the cutting operation both at the upper and lower edges of the brick being cut, substantially as set forth.

4. The combination in a machine for wire-cutting brick from a continuously moving column of clay comprised substantially of mechanism automatically operating cutting wires, a transversely slotted platen mounted in the path of said cutting wires and traveling in unison therewith and with the clay column during the cutting operation, offsets in the slots in said platen, and rollers in the platen sections opposite said offsets, whereby the cutting wires are deflected into said offsets during their traverse through the slots in the platen, substantially as set forth.

5. In a machine for wire-cutting brick from a continuously moving column of clay, cutting-wires, means for actuating them, platen-sections having slots between them for the passage of the cutting wires during the cutting of a brick, offsets in said slots, rollers pivoted to said platen sections opposite said offsets, guide-sections above the platen-sections having slots between them for the passage of the cutting-wires corresponding to the slots between the platen sections, offsets in the slots between the guide-sections, and rollers pivoted to the guide-sections opposite the offsets therein, whereby the cutting wires are equally deflected from a direct line of traverse in the slots between the platen-sections and guide-sections at the upper and lower edges of a brick during the cutting thereof, substantially as set forth.

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

FRANK B. DUNN.

Witnesses:

W. S. EARSEMAN,
GEO. HILDENBITLE.