June 12, 1928. 1,672,938

E. C. HERVEY

METHOD OF MAKING ORNAMENTAL BRICK

Filed June 22, 1927 3 Sheets-Sheet 1

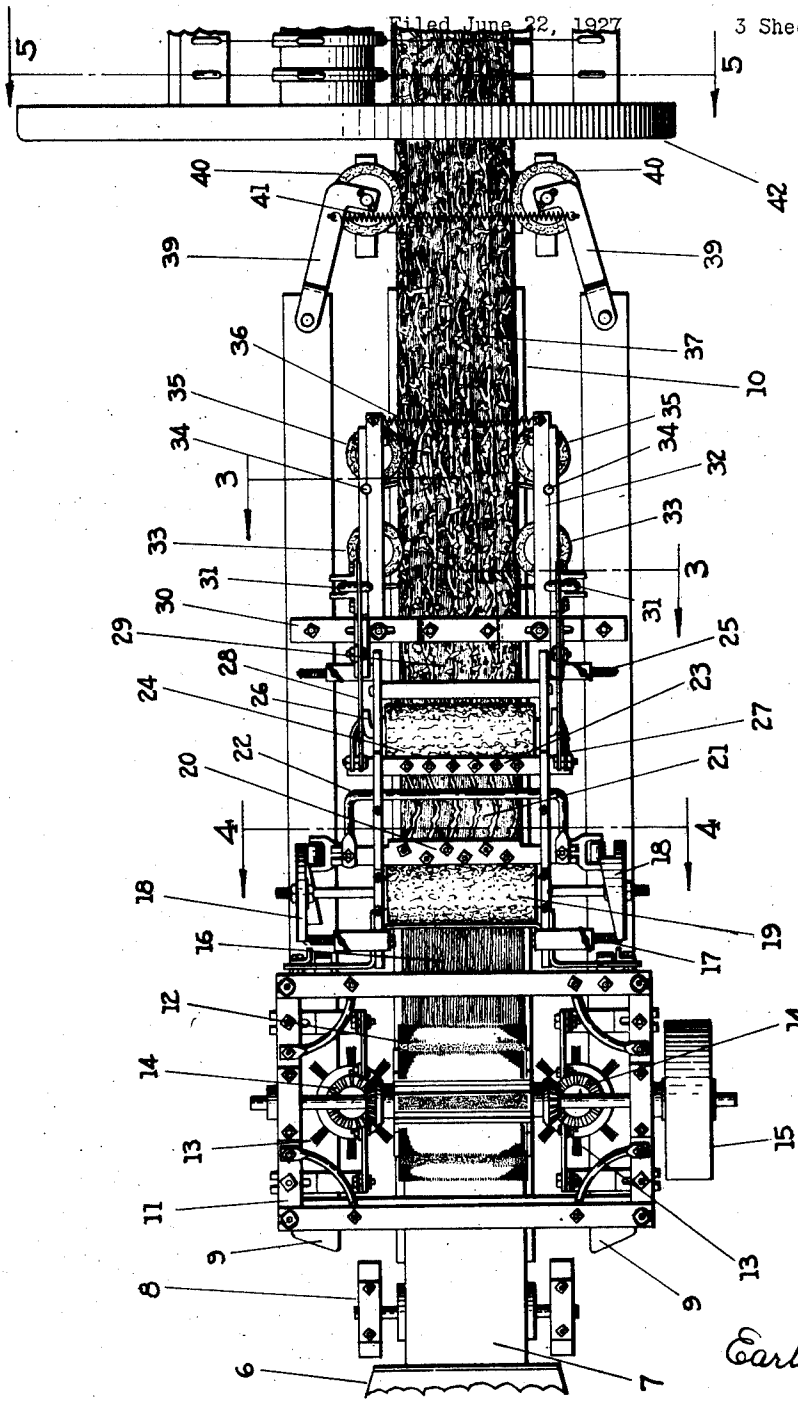


FIG. 1

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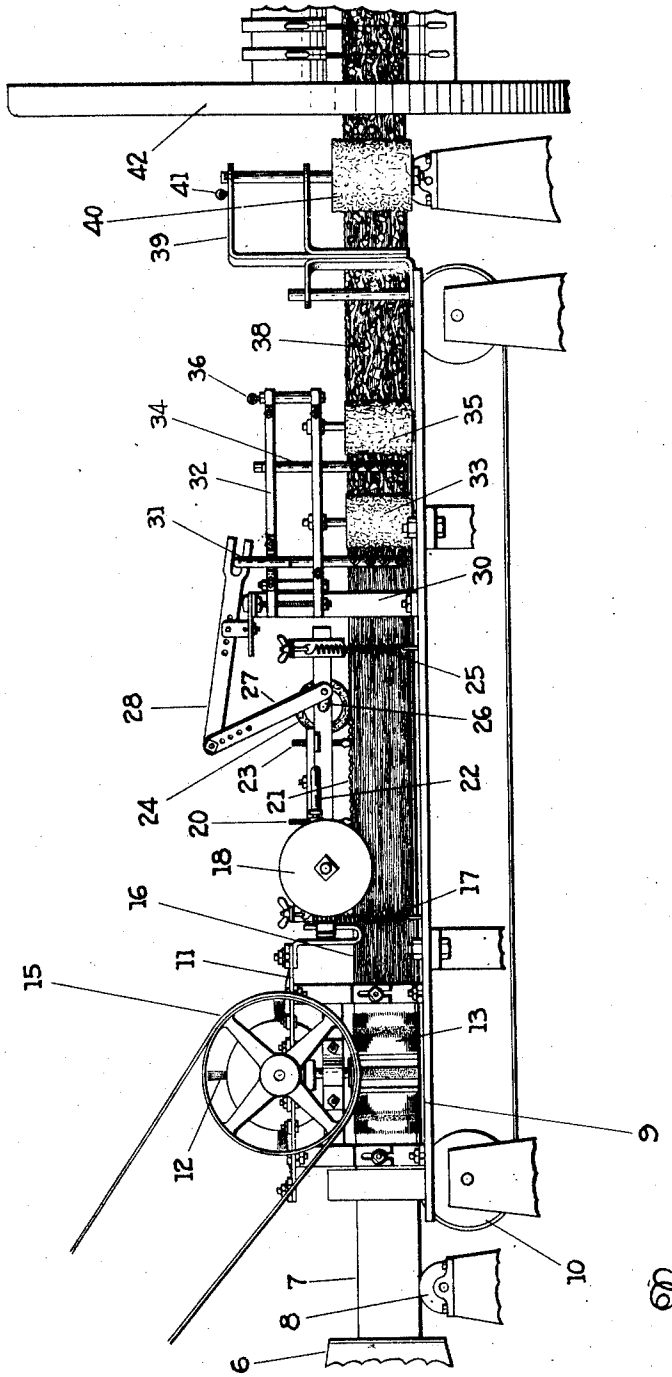


FIG. 2

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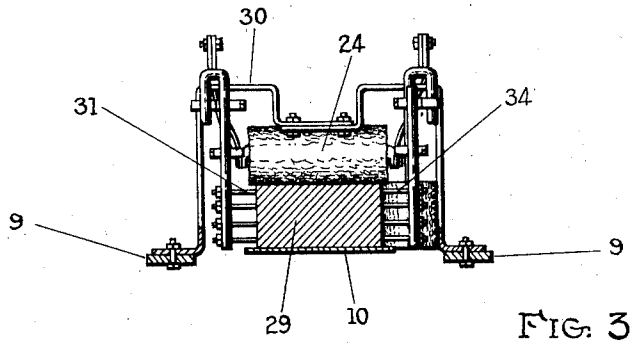


FIG. 3

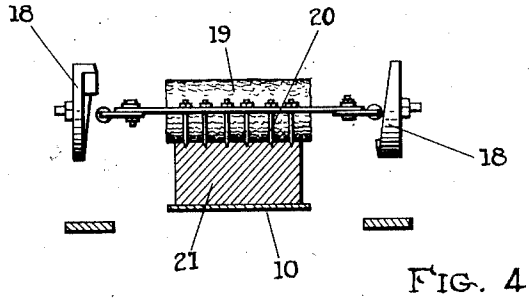


FIG. 4

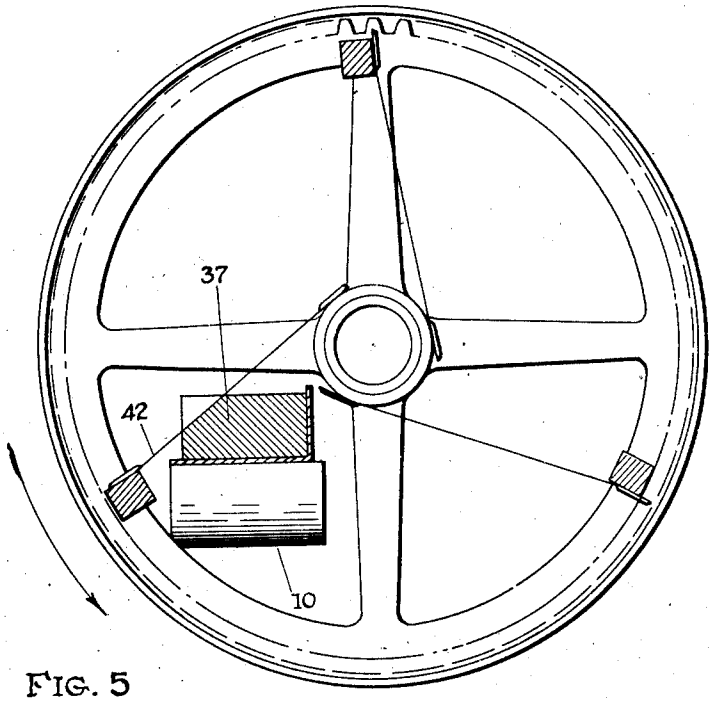


FIG. 5

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Patented June 12, 1928. 1,672,938

UNITED STATES PATENT OFFICE.

EARLE C. HERVEY, OF INDIANAPOLIS, INDIANA.

METHOD OF MAKING ORNAMENTAL BRICK.

Application filed June 22, 1927. Serial No. 200,743.

The object of this invention is to disclose a method whereby building bricks for facings will have on the outside face and ends, a rugged, bold surface with fine striations and with a plurality of broader and deeper furrows transverse to the longitudinal face of the brick, which, when the bricks are laid in the wall, will run perpendicular of the wall, and generally having the appearance of the bark of a tree.

In my method the column of stiff clay is pressed through a die at one end of the brick-machine and is received by a traveling belt or conveyor and carried to the cutting-wires where the column is sliced into the form of bricks.

By my invention the desired exterior surface is produced upon the clay intermediate of the die and the cutting wires. This exterior appearance or surfacing is secured by means as herein set forth but other means for performing the steps of my process may suggest themselves to those skilled in the art, as for instance, spikes or spades equally spaced in a frame transverse to the longitudinal axis of the column of clay, might be substituted for the rotating brushes to cut the parallel striæ on the face and sides of the clay column, or paddles be substituted for the pressing roller, or other means for reciprocating the scratchers 20 might be substituted.

Referring to the accompanying drawings:

Fig. 1 is a horizontal plan view of a brick-making machine, and

Fig. 2 is a horizontal side elevation of the same machine.

Fig. 3 is a transverse cross section on the lines 3—3.

Fig. 4 is a transverse cross section through the lines 4—4.

Fig. 5 is a transverse cross section through the lines 5—5.

The operative parts of the machine are carried by a base-frame 9. The ordinary die 6 delivers a column of clay or shale 7 over an idler-roll supporting this column to a conveyor belt 10. A horizontal revolving brush 12 supported in frame 11 is rotated by pulley and shaft 15. This brush 12 cuts upon the surface of the column of clay fine parallel striæ 16 longitudinally of the column of clay; likewise similar vertical brushes 13 cut similar parallel striæ 16 longitudinally on the sides of the column of clay these vertical brushes being driven by bevel-gears 14 from the shaft of the brush 12. A roller 19 is held against the column of clay by spring 17, giving said roller sufficient pressure to operate the roller and cams attached thereto.

Supported in frame 22 is a harrow-toothed reciprocating scratcher 20 which is reciprocated transversely to the travel of the column of clay by rollers operating against the cam faces of wheels 18 on the shaft of the roller 19. This scratcher forms substantially parallel grooves approximately a quarter of an inch wide and a quarter of an inch deep running in wave-like lines longitudinally of the surfaces of the column of clay, as shown at 21. A second stationary scratcher 23 having harrow-like teeth may be interposed to cut additional heavy grooves between the wavy grooves produced by the scratcher 20 but this is optional and may be dispensed with. A roller 24 held by the pressure of spring 25 against the column of clay, serves to roll upon and re-attach to the column of clay, the laminæ of clay plowed out by the scratchers. The side-scratchers 31 and 34 produce on the side of the column of clay the same wavy and straight furrows as are produced by 20 and 24, and in this connection rollers 33 and 35 supported in the frame rotate to re-attach the laminæ of clay detached by the scratchers to the sides of the column of clay, as in the case of rollers 19 and 24. On a frame 30 a lever 28 is pivoted which is actuated by a pitman 27 attached to a crank 26 on the shaft of roller 24 and to the end of lever 28 the scratcher 31 is attached and is reciprocated by said lever. The rollers 33 and 35 are supported by frame 32 and are held in tension by spring 36. 37 and 38 indicate the finished horizontal and vertical surfaces of the column of shale or clay after they have been treated by the brushes, the scratchers and the rollers. At the ends of frame 9, arms 39 support rollers 40 which press against the vertical sides of the column of clay by means of a tension spring 41 and these further serve to attach the laminæ of clay to the surface of the column of clay. 42 is the ordinary brick cutter assembly for slicing the column of clay into the ordinary dimensions of brick.

I am aware that efforts have been made to produce facing-brick which have substantially parallel furrows in imitation of tree-bark, but in all such methods to produce

such an effect in brick, care has been taken to prevent the flakes or laminæ which result from plowing out the grooves, from becoming re-attached to the surface of the clay-column and so appearing upon the surface of the burned brick. One of the objects of my invention is to utilize these flakes and laminæ and so give to the surface of the brick the appearance of excrescences, gnarls, or knots, instead of wasting this material.

I claim as my invention:

The art and process of surfacing a plastic column of clay before cutting the same into bricks, as the column of clay is pressed through a die at one end of a brick machine and carried by a traveling belt or conveyor to the cutting wires at the other end of such brick machine, by cutting on the upper face and one side of said column of clay, parallel longitudinal striæ, then plowing into the upper face and on the same vertical side thereof, longitudinal wavy furrows of a cross section several times wider and deeper than said striæ and in such step throwing out upon the surface of the column of plastic clay the material plowed out of such furrows in lumps, shavings or laminæ, then pressing said lumps, shavings or laminæ of clay sufficiently to cause the same to adhere firmly to the surface and treated vertical side of the column of plastic clay, then cutting said column of plastic clay into the required standard or usual size of facing brick and burning the same in the usual manner in a kiln.

Signed by me at Indianapolis, Indiana, this 10th day of June, 1927.

EARLE C. HERVEY.