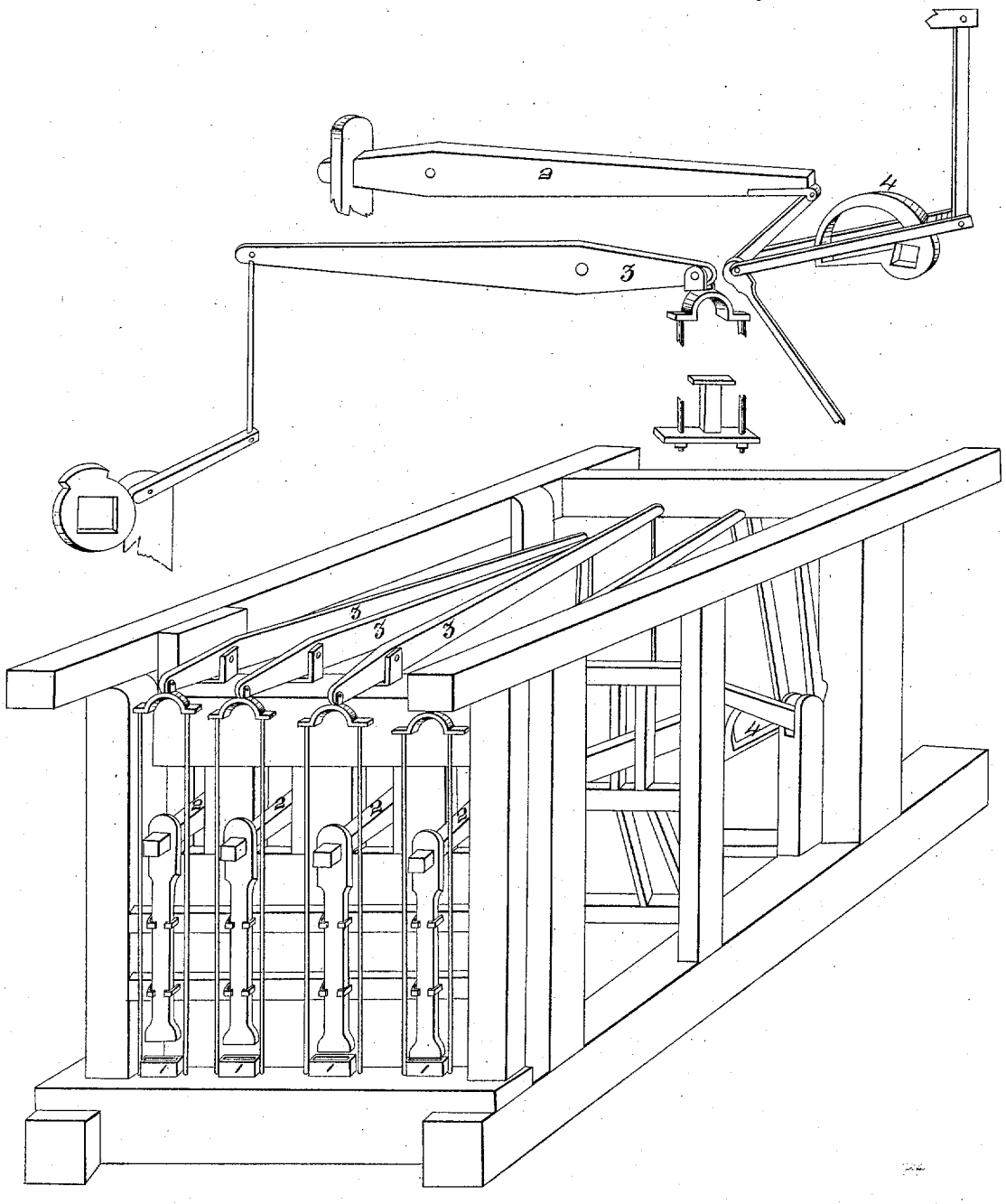
No Printed Specification Available

9605X

G. Holloway,

Brick Machine.

Patented Apr. 21, 1836.



AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

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Apl 21. 1836 347

Gording Holloway of Miamisburg Ohio

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Gording Holloway himself of his improvement in the machine for making and pressing Bricks from moist or unkneaded clay

To all to whom these presents shall come. Be it known that I Gording Holloway of the town of Miamisburg in the County of Montgomery and State of Ohio have invented a new and useful machine, including the frame and ground work supporting the same for making and pressing Bricks from moist or unkneaded clay. and that the following is a full and exact description thereof as placed upon the foundation and frame for making four moulds at each (but may vary in dimensions according to the number of moulds to be used)

The ground or main sills to be 18 by 21 in sqr. The longest or side ones 22 ft. and the end or short ones 10 ft. in length, with a suitable number of ties, or girders to hold them firmly in place. Five string pieces 7 ft. 9 in long to be framed into the middle or cross ties and those on back side 8 inches sqr for the purpose of receiving the ends of the joint levers. The main side sill next where the power is applied may be 32 feet long in order to accommodate a frame to cover the main or driving wheel 10 ft. of it reducible to 8 in sqr. On each end of the front side stands a post 6 by 8 in sqr. extending into the platform above into which are framed two cross pieces two feet apart and the lower one 18 in above the sills for holding the clamps to confine the pallets or moulding box in their places of perpendicular action as hereafter shown. Immediately behind or 4 in. from the front sills are placed two main posts 18 in sqr. & 10½ feet high from the top of the sill to the under side of the plate (which plate should be 8 in sqr. and corresponding length of the sills) mortice through the main sills and tenon with dove tail tenons well pinned. and also secured by strong iron bolts passing under the sills and bolted

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through the floor 12 in above the lower. Into these posts are framed two main beams. The upper one 18 by 24 in sqr. and the lower one 18 by 12 in with double tenons. They are to be placed 21 in apart and the lower one 3 ft above the main sill, let in with a relish of 3 in to the posts and between them are to be placed 8 pieces or uprights 7 in wide and 3 in thick framed in by mortices for the purpose of hanging and confining the main or long levers. On the top of the upper beam are placed 4 short posts on which hang the discharging levers 3 feet 3 in apart. The forward main posts are placed two more posts 8 in square of same height as the others, which receive and contain two more beams with uprights same in number as the forward ones but 6 ft sqr. 2 by 4 in sqr and 2 ft 7 in long, to serve as guides for the back ends of the main levers. 3 ft 3 in behind the last named or middle posts on the right hand side, is to stand another 12 in sqr. of equal height to receive the end of the shaft on which the vanes are fixed, and on the opposite side next the main wheel are placed two other posts in the sill 3 1/2 ft apart of like dimensions, into which are let or slipped two cross pieces 3 ft long and of suitable size to receive the ends of the ram wheel and spur wheel shafts. The former to be 4 1/2 ft from the top of the sill to the centre of the shaft. Immediately in front of the rear main post that contains the ram wheel shaft is placed a piece of timber 8 in sqr. into this are let 4 posts 6 ft high, in the top of which hang the short ram levers by means of connecting rods. Into the upper end of the ram wheel main post and the opposite plate is indented a beam or cross piece to which are attached the forked ends corresponding to those of the double ram rods connected with the joint levers. That part of the frame containing the main driving wheel is connected with the part already described and should be of corresponding dimensions. The main cog wheel to be 14 ft in diameter placed near the top of the vertical shaft of 24 inches diameter to be moved or propelled by an oval or elliptic power. The former by inclined planes or at the end of a horizontal bar 14 ft from the shaft and 2 ft from its base. Into the main cog wheel plays a spur wheel 21 inches di

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under placed on the end of a shaft 8 ft long. at the other end is another spur wheel of same size playing into a wheel 8 ft diameter which turns a shaft whereon is placed Rams that move the joint and main long levers. as well as the Rams for working the discharging levers. The above Rams may be made of cast shapes with iron; or wholly of cast iron 2 1/2 feet in length from the centre of the shaft on which they are placed to the point or end of the same in shape of Fellow D. The small Rams to operate the discharging levers should be 1 1/2 inch in length and fix the distance round the shaft for the purpose of raising and holding up the Bucket sufficient time for removal.

The first mentioned Rams, which move the joints and long levers, act between iron rods attached to the joint of the joint levers by means of a bolt passing through the whole of them. To the other end of these Rods is placed a wooden Roller against which the Rams strike in moving round. The rods are attached to the end of the respective long bars, and hung at the upper end by a bolt or hook. The lower part of the joint lever is 8 ft long and the upper part 2 ft 9 inches each measuring from the centre of the joint. The upper end is connected by means of a joint to the end of the long lever working under it. The lower end of the joint lever is hung by and plays on a bolt passing through it and the strong piece in which the foot rests.

The main lever is 12 ft long and 1 1/2 ins thick and 10 in at the widest part where it is hung by a 2 in round bolt playing in an iron box within 2 1/2 ft of the forward end and tapering to 1 1/2 in at the other. The counterbalance or spring lever is applied by means of a wooden bar or piece of timber of sufficient size to enter the mortise at the lower end which is to be placed within an iron or steel socket entirely smooth

The upper part of the bar to be sufficiently wide to bear upon the end of the of the main levers by mortises made sounding on the under side and is confined to it, perpendicular by the means before mentioned. The Buckets when pressed are raised out of the mould by means of the discharging levers (reaching above the main levers) which are moved by the small Rams acting upon the short

levers, connected by a rod with the said discharging levers 11½ feet in length and hung 2½ ft. from the floor and which is 6 in. wide and 2 in. thick tapering to a square same as the long levers. On the front end is hung a stirrup or bail at each end of which small rods, 18 in. apart are attached reaching down through the main front sills on each side of the moulds and through each end of a cross bar of iron or timber, on the centre of which stands a short post or stem for the purpose of lifting up the bricks to the top of the moulds, fastened by nuts or screws on the end of the rods. The short levers connected by a rod with the delivering levers is 1 ft. 3 in. long & 6 by 2 in. wide and is hung 12 in. from the end of the same.

The lower part of the same levers are connected by rods, 6 ft. 8 in. long. The moulds which are to be set into the main front sills may be made whole or in 4 pieces and set together by screws. The latter joining is preferable, on account of finishing the inside more perfectly smooth which is essentially necessary. The tapering may be had on with common set for the purpose of pressing the bricks more solid at the ends. The lower or bottom part to be a plate of iron or steel filled and fastened upon a block of wood to fill the mould as close as possible consistent with the movement. To the centre of which also is attached the stem passing down through the sill and fastened to the bottom of the frame, carrying sheaves for moving the bottom of the moulds as previously described. A screen for the purpose of pulverizing sifting and cleaning the clay is made of wire cloth. 2½ feet diameter and 6 ft. long fastened upon a oval rail the ends of sheet iron on each end of 4 inches wide, and a second one 12 in. in ground of the first, one foot in width for the purpose of protecting that part of the screen where the clay is thrown in. The whole to be turned by a band or rope passing around a wheel upon the upper end shaft & the second wheel fastened upon the shaft of the mill placed so near them as only that one end or pinion may be let into one of the main front posts and the other into a small one erected for the purpose of supporting the same. What I claim as my own in

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ventions and not precisely known in the above described machine and its ground work is in the first place the general construction of the frame supporting and containing the whole machinery. Secondly I claim the application of the joint lever to the end of the long or main lever whereby superior power is obtained. Also the bars or double cams and through which the cams passes. Likewise the friction rollers as fixed in the end of the same against which the cam strikes when moving round. Also the suspending bars and the way and manner they are attached to the frame ends. Also the application of the long and quick discharging lever with the manner of hanging and connecting the same. The slip also is hung by a screw & cushion thro end of the discharging lever for the purpose of raising the brick end of the mould as also the small frame before described. I further claim the improved combination position and propelling of the bars and in conclusion the combined application and operation of the three different powers or principles embraced in and by the frames, joint lever and main long lever or any two of them to be used or worked by steam animal or hand power in any machine for making or manufacturing bricks from moist or tempered clay.

Eyd. 1836.

Witnesses
Thomas Johns
Chas. M. Keller

Reading Holloway

(2114 words)

(Patented April 21. 1836)