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# UNITED STATES PATENT OFFICE.

LLOYD G. SATTERLEE, OF ROCHESTER, MICHIGAN.

## CEMENT-SHINGLE MACHINE.

944,508.

Specification of Letters Patent.

Patented Dec. 28, 1909.

Application filed October 7, 1907, Serial No. 396,263. Renewed July 10, 1909. Serial No. 507,007.

*To all whom it may concern:*

Be it known that I, LLOYD G. SATTERLEE, a citizen of the United States, residing at Rochester, in the county of Oakland and State of Michigan, have invented new and useful Improvements in Cement-Shingle Machines, of which the following is a specification.

This invention is a molding machine for tiles or shingles, and has for its object to provide an improved machine in which a plurality of shingles may be pressed or formed at the same time, and further provided with means whereby a mold frame in which the tile are molded may be quickly and readily removed, leaving the tile upon a pallet which can be removed therewith, successive pallets being substituted for continued operation.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the machine. Figs. 2 and 3 are side elevations in different positions.

Referring specifically to the drawings, 6 indicates a table, supported on legs 7. Upon this table is laid one of a number of removable pallets 8, upon which is placed the movable mold frame 9, containing spaces for a plurality of tiles or shingles. The mold frame has lugs 10 at opposite ends. A pair of hand levers, indicated at 11, are hinged to the table, and carry a cross frame 12 to the end or front side of which the die plates 13, for the shingles, are fixed. The levers are counterbalanced by weights 14 on the extended rear portions thereof. Extending across under the table top is a rock shaft 15 having a hand lever 16 at the middle and a swinging hook 17 at each end. These hooks are properly located or positioned to engage over the lugs 10 when the shaft is turned in proper position, and when so engaged they bind or hold the mold frame 9 upon the pallet. Mounted on the frame 12 is a similar rock shaft 18 having an operating lever 19 at the middle and hooks 20 similarly adapted to engage the lugs 10 when the handles are lowered.

I prefer to form the shingles by tamping rather than by continuous pressure and in the operation of the machine the pallet and frame are put in place and the spaces in the frame are filled with the cement or other

composition, the hooks 17 being engaged over the lugs 10 to hold the frame firmly in place. Then the upper frame and the die plates carried thereby are brought down by means of the hand levers 10 and the die plates are pressed or struck into the material in the mold. The handles are repeatedly raised and lowered thereby tamping and compressing the shingles to the proper shape or form. Then the top frame is pressed down tight and the hooks 18 engaged with the lugs 10, and the hooks 17 are released. Then by lifting the levers 11 the mold frame 9 is raised from the pallet and stripped clear from the shingles which thus remain in position on the pallet and are carried away to dry, another pallet being substituted and the operation repeated indefinitely. The shingles or tiles may thus be very rapidly produced, and the manner of lifting or stripping the mold frame 9 from the articles is such that they are not jarred or damaged, the frame being lifted directly and completely in the one movement. Obviously different die plates or other forms may be substituted and the machine may be applied to the production of tiles or thin ware of various kinds.

I claim:

1. The combination of a table and removable pallet supported thereon, a mold frame on the pallet, a swinging die frame hinged to the table, and means to fasten the mold frame to either the table or the die frame.

2. The combination of a table, a mold frame thereon having projecting lugs, a swinging die frame hinged to the table, and hooks carried by both the table and the die frame and engageable with the lugs.

3. The combination of a table with a pallet thereon and a pair of weighted levers hinged thereto, a frame on the pallet, a die frame carried by the levers, and rock shafts provided with handles and mounted upon the table and levers respectively, and having hooks engageable with the said frame.

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

LLOYD G. SATTERLEE.

Witnesses:

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