MOLD FOR PLASTIC SHINGLES.


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To all whom it may concern:

Be it known that we, NOAH D. ACKLES and EDWARD R. KOONTZ, citizens of the United States, residing at Plymouth, in the county of Marshall and State of Indiana, have invented certain new and useful Improvements in Molds for Plastic Shingles; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a mold that will be especially adapted for the manufacture of plastic shingles composed of cement, concrete, and like composition, whereby a shingle is produced to take the place of the ordinary slate shingle and will possess increased strength and durability; and it consists in a mold constructed substantially as shown in the drawings and herein described and claimed.

Figure 1 of the drawings is a perspective view of a mold embodying our invention; Fig. 2, a central cross-section thereof; Fig. 3, a detail perspective view showing a portion of one of the end sections of the mold and a portion of the removable division-plates; Fig. 4, a perspective view of the plastic shingle complete after it has come from the mold.

In the accompanying drawings, A B represent the side sections of the mold, and C D the end sections thereof, which are separately connected together, said sections being constructed of wood or any other suitable material. The side sections may be of any suitable length and width and are provided upon their outer sides with metal braces c and elongated holes or openings b to receive the projecting ends of metal bars E, which are connected to the outer sides of the end sections, these bars also forming braces or stays to said end sections. The side sections are rabbed upon their inner sides near their ends to form shoulders c, against which but the end sections, and the projecting ends of the bars have slots d to receive suitable tapering keys e to hold the side and end sections together and enabling the sections to be separated when desired. The end sections C D have a plurality of upright or vertical kerfs or grooves f upon their inner sides to receive the ends of vertical partition-plates F, which may be of metal or other suitable material, and are each provided upon one of their sides and near one end with two pins g, which form the nail-holes in the completed shingle. It should be understood that the projecting pins g on one partition-plate are entirely independent of the pins on the plate next to it, each partition-plate having its pair of pins at one end and upon one side only, and said pins are a fixture to the plate by being integral therewith or rigidly connected thereto and form a part of said plate, and when the plates are withdrawn the pins come with it. It will therefore be seen that the pins perform a double function in that the pins serve to form the nail-holes in the shingle when completed, but also act as supports for the shingle to hold it in contact with the partition-plates, so that when the plates are removed the shingles will be removed with said plates, this being a feature of material importance in the manufacture of plastic shingles. It will be noticed that the kerfs or grooves are so arranged with relation to each other that the space between the partition-plates will be slightly tapering, so that the plastic shingle when removed therefrom will be correspondingly tapering, as shown in Fig. 4 of the drawings.

In Figs. 1 and 2 of the drawings the composition from which the shingle is produced is shown at x between the partitions, and the completed shingle when removed from the mold is shown at H in Fig. 4 of the drawings.

Any suitable composition may be used in the manufacture of the shingle, but it is preferable that a cement be employed for this purpose, and when the side and end sections are connected together and the removable partition-plates placed in their proper position the cement in its soft plastic state is placed between said partition-plates until the space is well filled and packed. When the cement has set sufficiently, the keys are then removed and the end and side sections separated, and the partition-plates removed, as are also the molded shingles, the partition-plates, with their studs or pins, being one of the essential features of the invention, as the shingle when removed therefrom is complete in itself, with the perforations necessary for the nails used in securing the shingle in place.
A suitable metal lining $G$, with flanges $h$ at both top and bottom, may be suitably secured to the sides of the sections $A$, $B$, and said sections, if desired, may have shoulders $i$, which, in connection with the shoulders $c$, will better hold the end sections in place. It is preferred to have the surface of the metal lining $G$ perfectly smooth or polished to prevent the danger of the plastic material adhering there-to, and the lining may be removed for cleaning when found desirable.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A mold for plastic shingles, a plurality of partition-plates removably connected thereto, each plate having upon one end and side two projecting pins a suitable distance apart to form the necessary nail-holes in the shingle when finished, said pins being integral with their respective plates so that the pins will form a support for the shingle while the plate is being removed from the mold, substantially as and for the purpose set forth.

2. A mold for plastic shingles, comprising side sections having their inner sides rabbeded and vertical braces upon their outer sides, end sections having a plurality of vertical grooves upon their inner sides and horizontal arms connected to the outer sides thereof, said arms projecting beyond the ends of the sections and extending through slots in the side sections, and keys engaging slots in the ends of the bars to hold the side and end sections together, and a plurality of removable partition-plates engaging the vertical grooves in the end sections, and pins upon one side and near the end of each section to form the nail-holes in the shingle, substantially as and for the purpose described.

3. A mold for plastic shingles, comprising side and end sections separably connected together, the end sections having a plurality of vertical slots and the side sections having flanged linings upon their inner sides and shoulders for the end sections to abut against, and a plurality of removable partition-plates adapted to engage the slots in the end sections, and pins upon one side and near one end of the plates, substantially as and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

NOAH D. ACKLES.
EDWARD R. KOONTZ.

Witnesses:
HIRAM E. SPETLER,
TILDEN SNYDER.