This invention relates to a machine for scoring blocks or tile for building construction.

In applying plaster over a building block it is necessary to provide some sort of a surface with which the plaster can form a mechanical key, and thus bond to the block. It is the object of this invention to provide a machine to mechanically score building blocks in the process of manufacture to provide a surface with which the plaster can bond by means of a mechanical key.

In the drawing Fig. 1 is an elevation with parts broken away showing the general layout of the machine. Figs. 2 and 3 are respectfully side and end elevations in more detail of the actual scoring device, and Fig. 4 is a perspective view of a block scored by this machine.

The machine consists essentially of a suitable frame, an endless belt and driving mechanism therefor, and a scoring device. The endless carrier consists of shoes 4 and separators 5 suitably mounted and driven by drive wheels 2 suitably mounted on the frame. The blocks 5 are carried on the shoes of the endless carrier and held apart by the separators 5, and are automatically discharged at the end of the machine.

The scoring device consists of a blade 6 secured by eccentrics 9 which are mounted on a drive shaft 7. This drive shaft is counterbalanced by a counterweight 8 and driven from a drive shaft 6 which transmits power to the eccentric drive shaft 7 through a pair of beveled gears. Guides 12 are provided to prevent whipping of the blade 10 when the machine is operating at high speed. The whole device is mounted in a suitable frame 11 which is securely bolted to the main frame 1 of the machine. The scoring blade 10 is connected to the eccentrics 9 by means of bolts, yokes and springs, this arrangement being designed to allow a certain amount of play as the separators of the belt pass under the blade.

In operation the blocks 5 pass under the cutter blade 10 while in a semi-plastic state. The cutter blades dip into the semi-plastic material and as the block moves forward a ridge is raised in the surface of the block. These ridges are normally about 3/4" apart, average 25 ridges to a 12" width of block. After passing under the scoring bar or blade the blocks remain on the carrier belt until they become hard and set, when they are discharged at the end of the machine.

Having thus described our invention what we claim is:

1. In a block scoring machine a suitable carrier comprising moulds for the block, driving means therefor, and a scoring device comprising a transverse blade and means to drive it in successive up and down movements.

2. In a tile scoring machine a scoring device comprising a scoring blade, guides therefor, a drive shaft having a rotary motion, eccentrics connecting the rotating drive shaft to the scoring blade, transforming the rotary motion into a vertical reciprocal motion, and a counterbalance on the drive shaft to balance the weight of the eccentrics and the scoring blade.

3. In a tile scoring machine a scoring device comprising a suitable frame securely fastened to the frame of the machine, a counterweighted rotating drive shaft, eccentrics attached to the shaft, and a scoring blade connected to the eccentrics through yokes, bolts and springs, and guides to prevent the scoring blade whipping at high speed.

4. The method of scoring building blocks, comprising the passing of the building blocks through a scoring device while continuously in motion, and raising ridges in the face of the block, by means of a blade acting intermittently transversely of the direction of travel of the blocks.

5. In a tile scoring machine, a continuous series of movable molds arranged to receive a plastic material, a rigid, movably mounted scoring element, means for reciprocating said scoring element substantially vertically adjacent the plastic material and contacting therewith during the movement of the molds so as to form before the setting of said material a series of substantially parallel score.
marks extending transversely on said plastic material.

6. The method of forming building blocks, comprising advancing said building blocks while the material of said blocks is in a plastic state, successively contacting a substantially vertically reciprocating scoring element with the upper surface of said block so as to form a series of substantially parallel transversely extending bonding ridges on said surface, and permitting said plastic material to set.

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