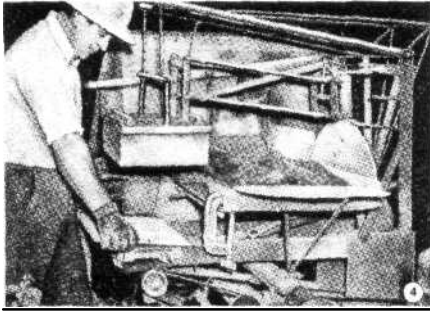
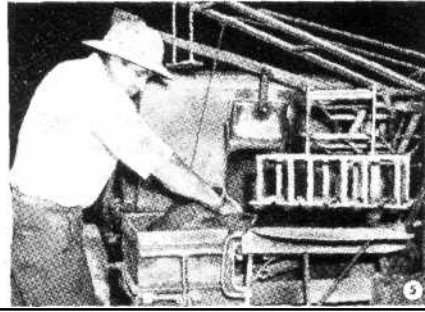


First step is placing the molding "board" on the vibrator arms. Some material from the discharge door of the mixer is on the platform above the mold, which is still supported in the raised position.



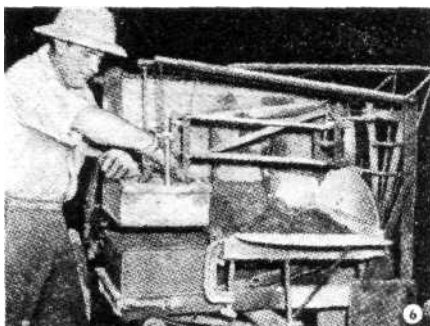
Here the mold has been lowered and locked, the crane released and ejector swung aside. Operator is filling mold. After filling and vibrating the mold, the material is struck off flush with the top.



both the hydraulic pump and the mixer is detailed in Fig. 15. Raising and lowering of the hopper is controlled by a three-way valve, Figs. 11 and 12. By-passing the hydraulic fluid allows the pump to be operated continuously, thereby simplifying the drive. The vibrator shaft, Fig. 15, is pedal-operated and runs only when the pedal is depressed. One belt from the two-step cone pulley passes around an idler. The pulley driving the vibrator is located between the driving pulley and the idler as shown in Fig. 15. When the pedal is depressed the center pulley engages the belt, and "throw" of the off-center weights, Fig. 11, vibrates the mold. The mold must be held rigidly in place for this operation and Fig. 11-A details the quick-acting clamping device especially made for this purpose.

The mold and the ejector, Figs. 2 and 3, are made for three blocks. There are two cores in each compartment of the mold and note especially that each core is vented (Fig. 2) and tapered slightly so that it will draw easily without breaking the edges of the block. Cores can be cast from a rich cement-sand mixture or they can be made of heavy sheet metal, welded. Where facilities and

Next, crane is attached to mold and the



ejector swung into position. Holding the ejector down, operator depresses a pedal, lifting the mold. Then after moving the blocks, the process is repeated.

materials are available, they also could be cast from aluminum.

Fig. 16, details A to E inclusive, shows a one-core mold (A and B) which is suitable for certain special types of blocks. Detail C supplements Fig. 6 and shows more clearly the procedure and placement of the hands in ejecting the block from the mold, while details D and E suggest types of elevated tracks or rails for moving blocks away from the machine and to the curing yard, as in Fig. 7. Curing racks of any convenient size may be assembled from hardwood boards, steel angles, and flanged rollers as in Fig. 16-D. Detail E suggests one way of providing for easy handling of the blocks from the machine to the curing racks.

General assembly views of a hand-operated machine for making a few blocks at a time are given in Fig. 17. Here most of the work is done by hand, only the vibrator being motor driven. It's easy to build for either a one-, two-, or three-block mold. Proportions of the mix which have been found most satisfactory are 7 parts pea gravel, 12 parts sharp sand, 2 parts silt, and 2-1/2 parts portland cement. The amount of water is determined by experiment as it depends on the dampness of the aggregate. 9

Here's the final step . . . moving blocks



to the curing yard on racks especially designed for the purpose. It usually is best to cure blocks in shade. They should not be handled until cured thoroughly.

