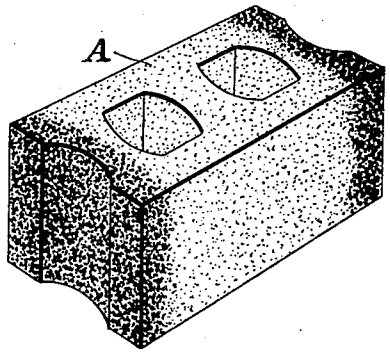
June 24, 1930. F. J. STRAUB 1,766,561

BUILDING BLOCK

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UNITED STATES PATENT OFFICE

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BUILDING BLOCK

Original application filed November 16, 1926, Serial No. 148,676. Divided and this application filed March 21, 1928. Serial No. 263,398.

My invention relates to an improvement in building blocks, and more particularly of the kind known as cinder concrete blocks or the like, composed of cellular aggregate, dried by exposure to the atmosphere.

The object in view is to provide a block in which the wall surface at one side is denser or more compact than the other, so that such dense wall will have a more compact consistency, improved appearance, and may be exposed to the weather for resistance and durability. The other side, being less dense and more porous, will retain the desirable characteristics of a porous wall.

The invention is particularly useful and valuable where the material or aggregate used is sufficiently light and porous to admit of the application directly upon it of plaster or stucco, or the application of wooden trim etc., by nailing, as may be done in the well known cinder block construction, as in my prior Patent #1,212,840.

The subject matter of this application is a division in part of my prior application filed November 16, 1926, Serial No. 148,676, and relates particularly to the product of the method of manufacture disclosed therein, or of similar methods of manufacture.

In making the block as disclosed in said application, I utilize a molding machine equipped with a double row of tamps, one row tamping the material or aggregate in the mold at the middle of the cores, the other tamps working at the back or other side thereof. The tamps are also preferably varied in weight to effect variation in the tamped density, and when desired the density of the wall portion formed by the heavier tamps may be further improved by the use of a vibrating plate or wall like that shown in my prior application filed November 16, 1926, Serial No. 148,674.

Other methods of effecting comparative dense and hard formation at one side and porous and light formation at the opposite side of the block may be utilized, as by using comparatively wet or liquid mixtures for the dense side of the block and a comparatively dry mixture at the other side. Also by regulating the fineness and coarseness of the aggregate mixture, utilizing comparatively fine, easily compacted granular aggregate for the dense side and comparatively coarse or larger aggregate at the other or lighter side. With either such variation the material may be distributed and charged into the opposite sides of the mold by any suitable means, as by shovelling or by utilizing independent feeding conveyors or aprons of any suitable construction, one delivering the material at each opposite side prior to and during the tamping operation.

The drawing shows a perspective view of the building block with the end portions denser than the middle following the method of manufacture of the block.

The material for the block A is filled into the molding space in the usual way, a pallet having been first inserted for removal of the finished block, and the block is tamped within the walls and around the cores by a plurality of tamps of well known construction.

For the purpose of effecting the densifying action, the end or side tamps are materially heavier than the intervening tamps, so that, as they fall in the tamping operation, they will crowd the material at that side or end of the mold closer together, during the time the lighter intervening tamps are doing the same work at the other side.

In order to bring the final tamped body portion of the block up to a final common level, the aggregate may be supplied by any suitable feeding means in a proportionately increased amount at the denser side before or during the tamping operation. Such operation continues until the mold is completely filled and tamped up to the desired level, after which any surplus material is removed by shifting it laterally across the top of the mold in the usual way.

It will be obvious that either side of the block may be made of denser consistency, or that the ends may be similarly treated, as shown in the drawing. For such purpose additional aggregate may be supplied to the mold and tamped by the heavier tamps, the intervening portion being normally compressed by the lighter tamps, suitably arranged in the machine. By such treatment

I avoid any deficiency due to not fully filling and finishing the end and particularly the corner portions of the block, so that it is completely developed and hardened at its end and corner extremities.

For the purpose of imparting a smooth finished surface to the denser face of the block, one of the side walls of the mold may be in the form of a longitudinally vibrating plate.

Such vibration or alternating movement of the plate will tend to "trowel" such face, giving it a substantially smooth finished surface, in the manner more fully described in the said co-pending application.

The block may be of any desired dimensions, and the proportions of the walls and core openings may be made to suit the conditions of use, or other changes and variations may be adopted by the skilled mechanic, within the scope of the invention, as hereinafter claimed.

Having described my invention, what I claim is:—

1. A building block composed of continuously similar air-dried concrete aggregate having a light porous main body side portion and a comparatively hard dense end portion.

2. A building block composed of continuously similar air-dried concrete aggregate having a light porous main body side portion and comparatively hard dense end portions at each side thereof.

In testimony whereof I hereunto affix my signature.

FRANCIS J. STRAUB.