Jan. 15, 1929. 1,699,351

B. O. E. FENBERG

BUILDING BLOCK

Original Filed June 10, 1926

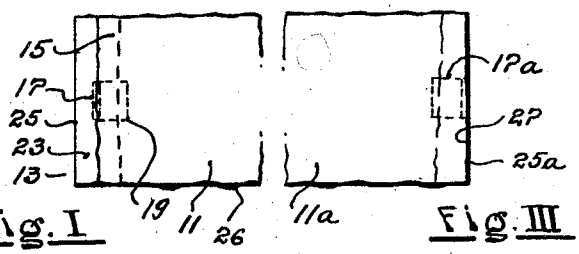


Fig. I Fig. III

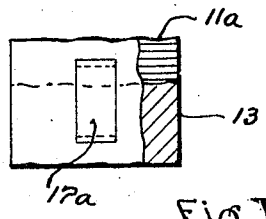


Fig. V

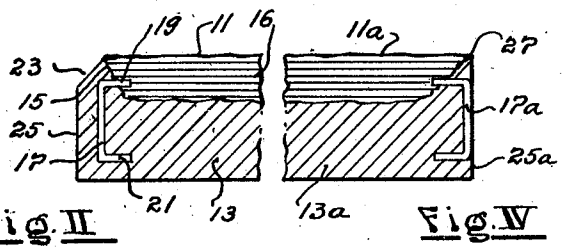


Fig. II Fig. IV

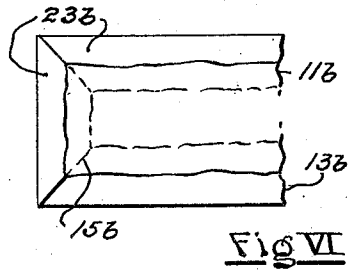


Fig. VI

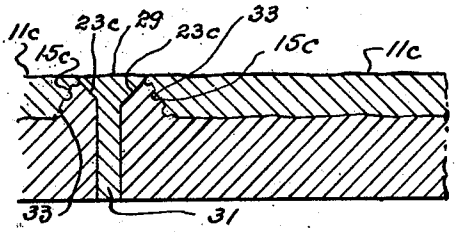


Fig. VII

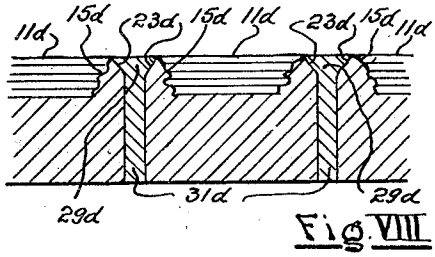


Fig. VIII

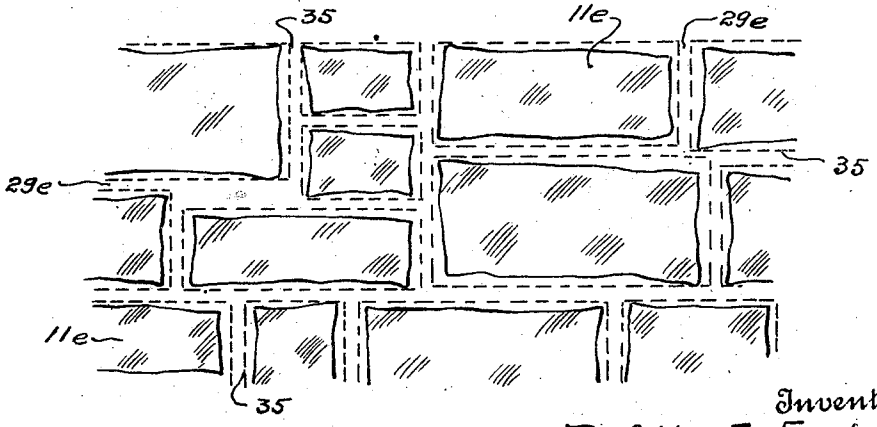


Fig. IX

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By his Attorney

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UNITED STATES PATENT OFFICE.

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BUILDING BLOCK.

Application filed June 10, 1926, Serial No. 114,953. Renewed July 13, 1928.

The present invention has reference to a block for use in the construction of buildings and the like, and the same appertains more especially to the kind having a facing of different material from that of its backing.

One object of the invention is the production of an improved block of the character described admitting of a diversified combination of vari-colored and sundry sizes thereof being asssembled into a decorative whole.

Another object is to produce a block of the type specified capable, when set in position with several thereof, of effecting an ensemble closely imitating inlaid or mosaic work.

A further object is to provide a block of the class mentioned, having a facing of smaller dimensions than its backing, so as to enable the mortar of the joints to extend up to the edges of the facing, over the sides of the block.

Still another object consists in providing a block of the nature set forth, including a facing the edges whereof are shaped to present the maximum surface for engagement by the backing of the block.

A still further object is the provision in a block of the kind referred to, of anchorages intermediate the sides of the facing and the body of the backing, serving to increase the hold of the latter upon the former.

A general object is to furnish a block of the genus alluded to, which shall be simple and practical to make; convenient and time-saving to handle for erection purposes; not liable to excessive breakage; distinguished by attractive appearance; besides amenable to a reasonable low cost of manufacture.

Other objects and advantages of the invention will become apparent as the specification proceeds.

With the aforesaid objects in view, the invention consists of the novel combinations and arrangements of parts hereinafter described in their preferred embodiments, pointed out in the subjoined claims, and illustrated on the annexed drawing, wherein like parts are designated by the same reference characters throughout the several views.

Generally described, the invention under consideration, includes in its organization a block having a facing composed of a slab of natural or artificial slate or the like. This facing is embedded with its longitudinal, transverse and undersides into a thicker backing consisting of cement or concrete. The superficial area of the facing is made smaller than that of the backing, thereby causing the latter to extend beyond or outside of the former. The upper corners of the backing are chamfered or bevelled away from the corresponding edges of the facing, in order to enable the mortar of the joint between adjoining blocks to reach the contour of the facing, concurrently overlying and covering up the margins of the blocks. The sides of the facing slabs are undercut so as to present as large a surface as possible for engagement by the backing, for the purpose of augmenting the binding effect therebetween. Anchorages driven in between the strata of the slate slabs and surrounded by the material of the backing, serve to increase the hold thereof on the facings.

The advantages of the invention as here outlined are best realized when all of its features and instrumentalities are combined in the one and same structure, but, useful devices may be produced embodying less than the whole.

It will be obvious to those skilled in the art to which the invention appertains, upon becoming conversant with the details thereof, that the same may be incorporated in several different constructions. The accompanying drawing, therefore, is submitted merely as showing the preferred exemplification of the invention.

In the said drawing:

Figure I is a fragmentary plan view of one embodiment of this invention;

Fig. II is a sectional elevation of the same embodiment;

Fig. III is a fragmentary plan view of a slightly modified form of building block;

Fig. IV is a sectional elevation of the form of the invention shown by Fig. III;

Fig. V is a side view partly in section, of the last named modification;

Fig. VI is also a fragmentary plan view, showing another exemplification of this invention;

Fig. VII is a longitudinal section illustrating the joint intermediate blocks of somewhat different structure;

Fig. VIII is a transverse section representing the joints between another type of blocks; and

Fig. IX is a front view of an assemblage

of blocks, affording an idea of the appearance thereof when used in building construction.

Referring now to these views for a detailed description of the improved building block forming the subject matter of this invention, the numeral "11" denotes a slab or piece of slate constituting the facing. This slab is set into a backing 13 that consists of cement, concrete or other suitable material. The opposite ends of the facing slab referred to, one of which is indicated at 15, are undercut, or in other words, the lower inner corners thereof are broken off or tapered in a downward and inward direction, with respect to the base or underface of the slab. This bevelling or tapering off of the margins of the slab enlarges the edge surfaces thereof so that the backing or block of plastic material may more firmly grip and adhere to the slab. When natural slate is fractured cross-wise of its strata, shown exaggerated by the horizontal lines 16, there is left intermediate of the harder portions thereof, small hollows, into which creeps the substance composing the backing, forming a thorough bond therebetween.

In order to enhance the hold of the latter upon the facing, there may be provided an anchorage 17, having its upper and lower extremities offset in substantially right angular relation to the middle portion (17) thereof, to provide upper and lower legs 19 and 21 respectively. The upper leg 19 is adapted for driving into the end or side of the slate-piece, between its strata, while the other leg 21 and the body portion of the anchorage is entirely enveloped by the backing. The construction referred to, is particularly advantageous for blocks of narrow and elongated shape.

At 23 is represented that the upper corner of the transverse side or end wall 25 of the block is chamfered or bevelled downwardly outward from the edge of the facing, for a purpose later on pointed out. It will be observed from Fig. I that the longitudinal edges 26 of the facing are disposed lengthwise in the same plane as the sides of the backing, a feature which is desirable under certain conditions encountered in practice.

The block disclosed by Figs. III, IV and V, is similar to the one depicted by the first named figures, with the exception that the cross-wise disposed edge 27 or the facing 11^a, coincides approximately with the transverse side 25^a of the backing 13^a. Another variation consists, in locating the anchorage 17^a so that its body part lies flush with the surface of the said side 25^a.

Fig. VI which is a view looking down upon the partial top face of a block of somewhat different character, illustrates that the backing 13^b of the same surrounds the facing 11^b, on both the longitudinal and transverse sides thereof. If desired, the upper corners along the last named sides, may be chamfered as suggested at 23^b, although this is not absolutely necessary, depending upon the nature of the work or structure with which the block is to harmonize. The undercut sides and ends of the facing 11^b of the block under consideration, being indicated by dotted lines at 15^b.

In Fig. VII is represented the manner of forming the joint between the transverse sides of a pair of adjacent blocks, portions whereof only being shown. It will be noted that the mortar at the outside surface 29 of the joint, is wider than at the inside 31 thereof. From the foregoing it will be understood that the mortar completely covers up or overlies the chamfered corners 23^c at the ends of the blocks and in so doing also reaches the edges of the facing slab 11^c. The latter is thus given the appearance of being set into the mortar, that is, an inlaid effect is obtained. This is because the bonding surfaces of the joint proper are hidden from view. Fig. VII illustrates in addition that the facing 11^c may be composed of tile or ceramic ware. The undercut ends 15^c thereof being molded with ridges or flutes 33, which by preference are disposed cross-wise of the tile slab so as to afford the backing 13^c a better hold thereon.

A section passing transversely across the blocks is depicted in Fig. VIII. In this view is indicated that rough hewn facings 11^d are set with their edges inwardly away from the sides of the blocks, having their undercut portions 15^d depending into and enveloped by the material composing the said blocks. By reason of the inward bevelling or undercutting of the facing slabs, increasing the surfaces thereof exposed to the backings of the blocks, these facings do not require to be of appreciable thicknesses, relatively thin stone veneer will answer the purpose therefor. In this instance, the upper corners 23^d of the blocks are also bevelled off or chamfered but in the opposite direction e. g. downwardly outward from the facings so as to permit of the mouths 29^d of the mortar joints 31^d, reaching the edges of the said facings.

The appearance of an assemblage of blocks of various sizes is shown in Fig. IX. Pieces of slate in different natural colors will give a pleasing effect when set in panels or plaques, for both wall and floor decorations. If a water-proof mortar is used for the widened mouths 29^e of the joints intermediate the facings 11^e of the blocks, it will render the side of a structure built with the same, impervious to moisture, the material employed for facings is always sufficiently close grained to exclude dampness. The

hidden contours of the blocks are indicated by dotted lines at 35. Not only will conglomerated facings of various shades and diverse shapes give a near resemblance to mosaic work, but also the setting or laying of the blocks carrying these facings, can be accomplished more expeditiously than to place separate or individual pieces of slate and tile in position, and then fill in and around or between them with mortar. A walk or path laid with these faced blocks, will stay in place to better advantage than tile slabs alone, even if the latter are cemented down, because of the inherent weight possessed by the blocks' backings.

A convenient way of producing the blocks in question is to take a piece of slate of a given size, that has previously had the sides thereof undercut relatively to the face to be exposed; deposit this slate with its face downwards upon a mold board; place a frame at a dimension somewhat larger than the slate-pieces, around the same; and fill in this frame with plastic cement or concrete, which will then flow over the slate and into the crevices between the strata thereof. It is obvious that the height or depth of the frame selected, should correspond with the total thickness of the block including the facing thereon. When the block has partly dried out, the position of the same is inverted, and the then upwardly turned corners stopped off, that is sliced off from the edge of the slate facing in a downward and outward direction towards the sides of the block, to provide the desired chamfer. Another method of making the latter, is, after the block has hardened, to knock off the upper corners thereof, which can be done, either where the blocks are molded or at the place, they are being set or laid into their assigned positions.

While certain preferred embodiments of this device have been shown and described, it will be understood that changes in the form, arrangements, proportions, sizes and details thereof may be made, without departing from the scope of the invention as defined by the appended claim.

Having described my invention what I desire to secure by Letters Patent and claim is:—

A block of the character described including a slab composed of a stratified substance, a body consisting of cementitious material enveloping the sides of said slab constituting the backing therefor, and an anchorage imbedded in the latter adapted to have one end thereof driven in between the strata of said slab.

B. OTTO E. FENBERG.