

UNITED STATES PATENT OFFICE.

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ARTIFICIAL BUILDING-STONE BLOCK.

No. 839,510.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, EMANUEL JIRKA PROPPER, a subject of the Emperor of Austria-Hungary, and FERDINAND BACHSCHMID, a citizen of the Republic of Switzerland, both residing at Biel, Switzerland, have invented new and useful Improvements in Artificial Building-Stone Blocks, of which the following is a specification.

The subject-matter of the present invention is an artificial building-stone block which has the form of a cross. This cross may have arms of equal length and equal breadth, although in some cases the dimensions of the arms may be different. A most convenient proportion is one in which the vertical edges of the arms of the cross are half as long as the horizontal edges or faces of the ends thereof.

If the building-stone is to be employed for the production of dry walls—that is to say, walls built up of blocks placed together without binding material—the stone blocks are preferably provided at detached points with ribs or projections and at other points with corresponding grooves so arranged that the ribs or projections of the one stone block fit into the grooves of the other. If, however, a binding material, such as mortar, is to be used for uniting the stone blocks, they are preferably provided with channels or the like at those portions where they are to be held together by binding material.

In order to reduce weight, the stone blocks may be provided with recesses and perforations.

The accompanying drawings illustrate a constructional form of such improved building-stone block by way of example.

Figure 1 of the drawings is a view showing the stone block partly in front elevation and partly in section. Fig. 2 is a side elevation. Fig. 3 is a perspective view. Fig. 4 shows a wall or a floor covering constructed of the improved building-stone blocks. Fig. 5 is a sectional view showing portions of two building-stones laid together.

The building-stone block has four arms $a b c d$, through which it receives its cross form. The vertical or shorter edges e of the side faces of the four arms, Fig. 3, are half as long as the horizontal edges or faces f of the ends of the arms. The advantages gained by these dimensions are that, as shown in Fig. 4,

each arm of a building-stone block A can occupy the space between two similar arms of two other adjacent building-stone blocks.

For fitting onto straight surfaces—such as floor, side, and ceiling surfaces—and for filling up corners half building-stone blocks A' and quarter building-stone blocks A'' , respectively, may be used.

In order to facilitate accurate joining together of the building-stone blocks, the angles or inner corners of the arms are provided with rib-shaped lugs g , and the outer corners or edges of the end faces of the arms are formed with corresponding grooves h . In addition to this each building-stone block at parts where it is to come in contact with other similar building-stone block is formed with channels i for the reception of binding material, such as mortar, Fig. 5. Holes k serve to lessen the weight of the stone.

The improved building-stone blocks may be manufactured from various materials, such as gypsum, cement, clay, earthenware, or asphalt.

The dimensions of the arms $a b c d$ in the hereinbefore-described example render the building-stone blocks especially suitable for the construction of walls without binding material—so-called “dry” walls. The dimensions of the arms may nevertheless be different, and the improved building-stone blocks, in addition to the construction of vertical walls, may be used for floors, ceilings, and as a facing or covering.

A structure constructed of such building-stone blocks—for example, a wall—has its parts more solidly held together than a similar structure built up of the usual rectangular stone blocks, inasmuch as while the determinant proportions (thickness and superficial area) are equal the sum of the contact surfaces where stones of cross form are employed is one-seventh greater than where stones of rectangular form are employed.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, we declare that what we claim is—

1. An artificial building-stone block having salient and reëntrant angles and a peripheral groove and locking-lugs in the reëntrant angles and grooves, the salient angles cut away within the groove to fit over said lugs.

2. An artificial building-stone block in the form of a cross, a plurality of said blocks adapted to interfit and form a continuous surface each block having a peripheral groove
5 inclined lugs formed in the groove at the re-entrant angles and the salient angles within the groove beveled to take over said lugs in adjacent blocks, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of 10 two subscribing witnesses.

EMANUEL JIRKA PROPPER.
FERDINAND BACHSCHMID.

Witnesses:

ROBERT LAAGER,
FRITZ SAUTER.