May 1, 1951 H. STEINHAGE ET AL 2,550,945

BUILDING BLOCK

Filed March 14, 1949 2 Sheets-Sheet 1

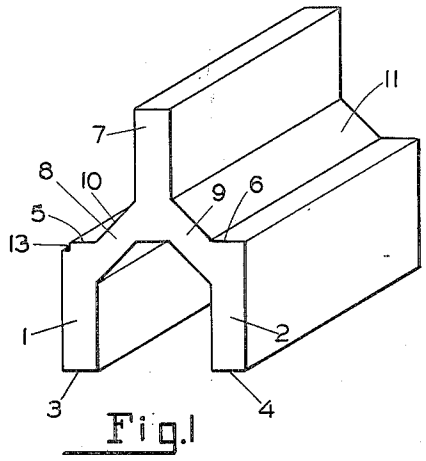

Fig.1

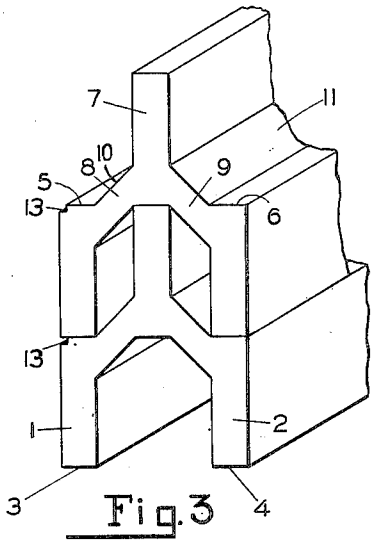

Fig.3

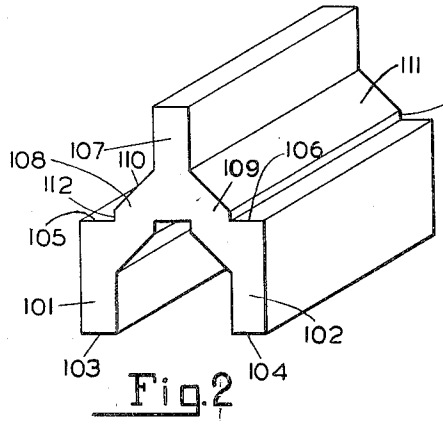

Fig.2

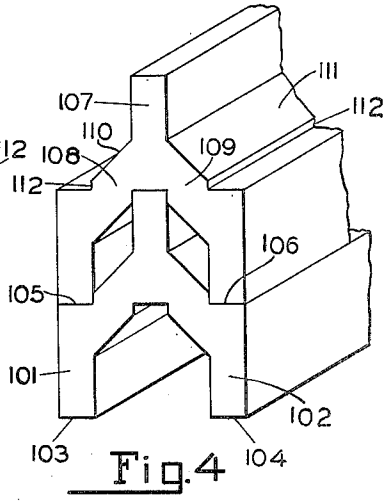

Fig.4

INVENTORS

GERHARD STEINHAGE. HEINRICH STEINHAGE
HUBERT J. WETZELS

BY

Attorney

May 1, 1951 H. STEINHAGE ET AL 2,550,945

BUILDING BLOCK

Filed March 14, 1949 2 Sheets-Sheet 2

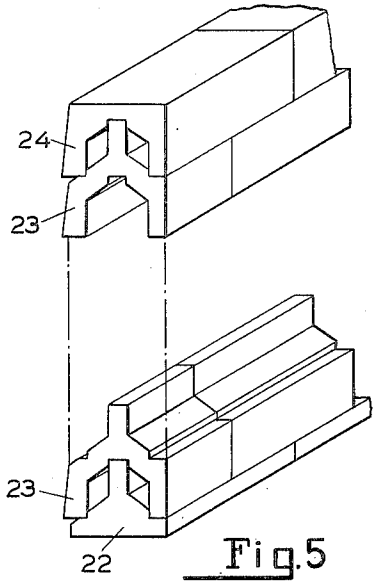

Fig.5

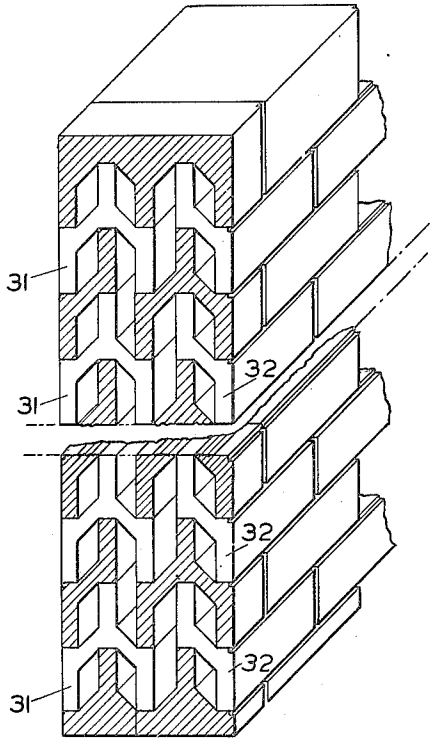

Fig.6

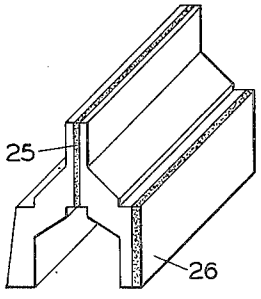

Fig.7

INVENTORS

GERHARD STEINHAGE. HEINRICH STEINHAGE

HUBERT J. WETZELS

BY

Herbert Steinhage

Attorney

Patented May 1, 1951

2,550,945

UNITED STATES PATENT OFFICE

2,550,945

BUILDING BLOCK

Heinrich Steinhage and Gerhard Steinhage, Ashausen, Kreis Harburg, Germany, and Hubert Joseph Wetzels, Kerkrade, Netherlands, assignors to Living Stone Establishment, Vaduz, Liechtenstein, a company incorporated of Liechtenstein

Application March 14, 1949, Serial No. 81,368
In France March 10, 1948

2 Claims. (Cl. 72—39)

1

This invention relates to a new and improved building element and it has particular relation to building elements composed of two parallel exterior walls and an intermediate wall, connected by means of longitudinal webs.

The main object of the present invention is to provide building elements of the above mentioned type, which can be assembled without the use of mortar to form a wall or other unit for building purposes which yields satisfactory protection from adverse atmospheric influences, such as rain, wind and heat.

Another object of the present invention consists in providing building elements of the above type, which when assembled to a wall or the like do not permit passage of rain or the like from one side of the wall to the other along a continuous straight joint.

Other objects and the advantages of the invention will be apparent from the appended claims and drawings and the following specification which describes, by way of example, some embodiments of our invention.

In the drawings, Figure 1 is a perspective view of a building element according to the invention; Figure 2 is a similar view of a somewhat modified embodiment and Figures 3, 4, 5 and 6 illustrate the manner of assembling building elements shown in Figures 1 and 2, respectively, with identical building elements and in combination with building elements of other design, respectively. Figure 7 illustrates a modification, in which the building element contains a heat-insulating layer or layers.

Referring now to the drawings in detail, in Figure 1, reference numerals 1 and 2 denote two parallel longitudinally extending, spaced exterior walls lying with their bottom and top surfaces, 3, 4 and 5, 6, respectively, in common planes. An intermediate wall 7 is parallel to and offset vertically with respect to said exterior walls, 1, 2. The distances between the top and bottom surfaces of walls 1, 2 and 7 are equal and the plane of the bottom surface of intermediate wall 7 is common with the plane of the top surfaces 5, 6 of exterior walls 1 and 2. A notch or recess 13 is provided in the upper portion of wall 1.

Longitudinal webs 8, 9 are inclined downwardly from intermediate wall 7 toward exterior walls 1 and 2. The top surfaces 10 and 11 of each of said connecting webs 8 and 9, respectively, project upwardly from an intersection with the top surface of its adjacent exterior wall and said intersecting surfaces provide a corner abutment in

2

vertical alignment with the inner corner of the bottom of the respective exterior wall.

The building element shown in Figure 2 is substantially identical with the building element shown in Figure 1, but a vertical side shoulder 112 is provided by each of the connecting webs, in vertical alignment with the inner corner of the bottom of the respective exterior wall. In Figure 2, reference numerals 101 and 102 denote parallel, longitudinally extending spaced exterior walls, lying with their bottom and top surfaces 103, 104 and 105, 106, respectively, in common planes. 107 denotes the intermediate wall arranged in the same manner as in the embodiment of Figure 1. Reference symbols 108 and 109 denote the connecting webs having top surfaces 110 and 111.

Figures 3 and 4 illustrate each the assembling of two identical building elements, according to Figures 1 and 2, respectively, and need no further description. As shown by these figures, the individual building elements fit together to form a wall of plane inner and outer surface.

As shown in Figures 5 and 6, the building elements according to our invention may be assembled also with building elements of other design. Figure 5 illustrates a wall comprising a T-shaped bottom element 22, several Y-shaped intermediate elements 23 according to our invention and a U-shaped top element 24. In this case too, the building elements automatically align with the adjacent elements and the resulting wall has a plane surface on both sides. The wall illustrated in Figure 6 consists of building elements 31 according to our invention, assembled with S-shaped building elements 32.

In the embodiment illustrated in Figure 7, the intermediate wall of a building element according to our invention contains an inner layer 25 of low thermal conductivity, and the surface of one of the exterior walls of this element is also provided with such layer 26 of low thermal conductivity. The layer of low thermal conductivity consists preferably of concrete foam or peat fibres mixed with a suitable binder.

The building elements according to our invention are adapted to be used in buildings above ground, as well as in structures below ground level and are particularly suitable for the construction of buildings which have to be moved from time to time. Such buildings can be used, in summer and winter, immediately after construction, as no drying of the walls and the like is necessary. Our building elements may also be used for toy building sets which can be made

of pressed peat, molded plastics, clay, glass, wood, and the like.

The building elements of the invention can be made of any suitable material, such as clay, concrete, wood, glass, metal, plastics and others. Walls and the like assembled from concrete building elements of our invention, do not require coating or finishing.

It will be understood that our invention is not limited to the details specifically described above and illustrated in the drawings and may be carried out with various modifications without departing from the scope of the invention, as defined in the appended claims.

We claim:

1. A building element comprising in combination, two parallel longitudinally extending spaced exterior walls lying with their top and bottom surfaces in common planes, respectively, an intermediate wall parallel to and offset vertically with respect to said exterior walls, the bottom surface of said intermediate wall being common with the plane of the top surfaces of said exterior walls, longitudinal webs connecting the lower portion of said intermediate wall to the upper portions of said exterior walls, said longitudinal webs being inclined downwardly from the intermediate wall toward said exterior walls, the distances between top and bottom surfaces of all three of said walls being equal, an upper surface of each of said connecting webs projecting upwardly from an intersection with the top surface of its adjacent exterior wall, said intersecting surfaces providing a corner abutment in vertical alignment with the inner corner of the bottom of the respective exterior wall.

2. A building element comprising in combination, two parallel longitudinally extending spaced exterior walls lying with their top and bottom surfaces in common planes, respectively, an intermediate wall parallel to and offset vertically with respect to said exterior walls, the bottom surface of said intermediate wall being common with the plane of the top surfaces of said exterior walls, longitudinal webs connecting the lower portion of said intermediate wall to the upper portions of said exterior walls, said longitudinal webs being inclined downwardly from the intermediate wall toward said exterior walls, the distances between top and bottom surfaces of all three of said walls being equal, each of said connecting webs projecting upwardly from and above its adjacent exterior wall and providing a vertical side shoulder in vertical alignment with the inner corner of the bottom of the respective exterior wall.

HEINRICH STEINHAGE.
GERHARD STEINHAGE.
HUBERT JOSEPH WETZELS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
181,043	Clayton	Aug. 15, 1876
794,510	Kline	July 11, 1905
806,911	Phillips	Dec. 12, 1905
826,388	Thomas	July 17, 1906
865,654	Noack et al.	Sept. 10, 1907
893,924	Hofmann	July 21, 1908
1,543,635	Wickson	June 23, 1925
1,687,342	MacVeigh et al.	Oct. 9, 1928
1,758,757	Niemann	May 13, 1930
2,340,263	Dodson	Jan. 25, 1944

FOREIGN PATENTS

Number	Country	Date
93,513	Switzerland	1922
169,516	Great Britain	1921
182,718	Canada	1918