Aug. 28, 1951 J. VAN HULST 2,566,099

BUILDING HAVING AN OBTUSE-ANGLED OUTER CIRCUMFERENCE

Filed Dec. 26, 1947

FIG. 1.

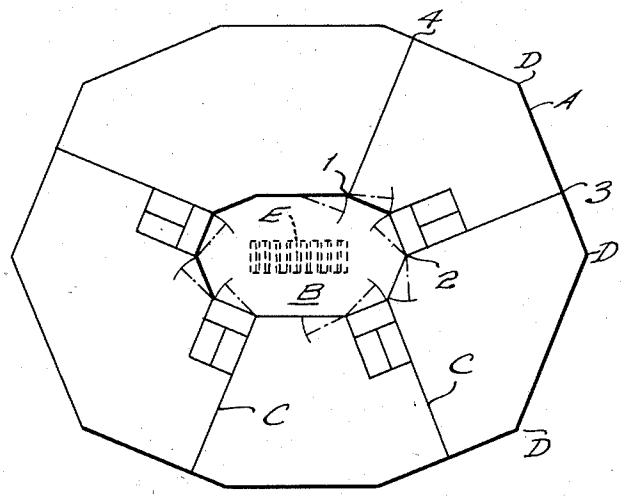



FIG. 2.

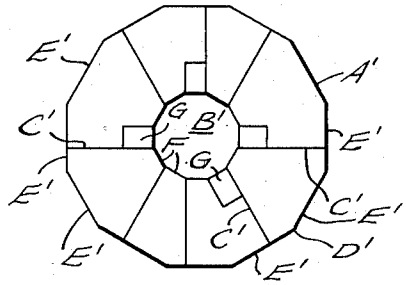
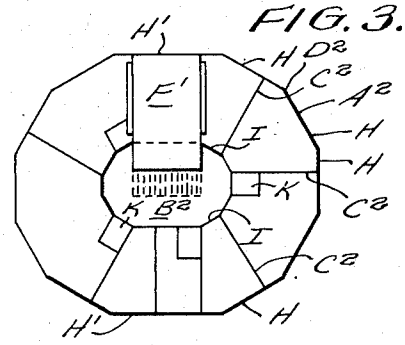



FIG. 3.



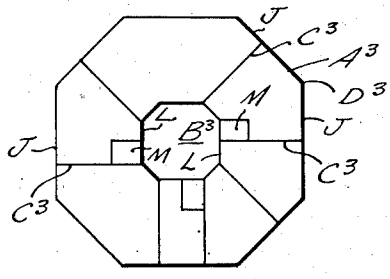




FIG. 4.

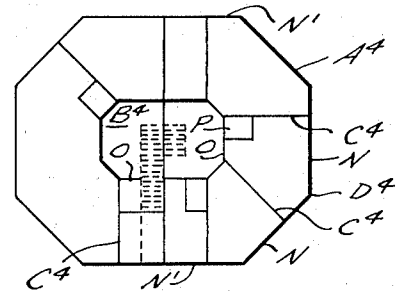



FIG. 5.

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2,566,099

## BUILDING HAVING AN OBTUSE-ANGLED OUTER CIRCUMFERENCE

Jan van Hulst, Amsterdam, Netherlands

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1 Claim. (Cl. 20—1.1)

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This invention relates to a building having a floor plan, of which the outer circumference is entirely or at least partly obtuse-angled.

Buildings with a floor plan of this kind are very uncommon. As a rule the outer circumference of buildings, houses and villas comprises a number of walls which are perpendicular to each other, the floor plan being substantially composed of a number of interconnected rectangles. This is due to the fact that a rectangular space presents special advantages as living, working or storage room, since the large furnishing objects, such as cupboards, beds and tables, are mostly of rectangular shape and are preferably placed in a right-angled corner or against a straight plane wall, so as to obtain a practical and economical division of the available room.

When both the length and width of the floor plan as a whole are of the same order of magnitude but the dimensions of the individual rooms relatively small by comparison, as is the case in nearly all single houses and small groups of houses under one roofing, an outer circumference with wall sections which are perpendicular to each other presents, however, the drawback that the outer walls and consequently the windows and outer doors are distributed very irregularly over the various rooms.

An object of the present invention is to provide a building with a floor plan, by which the above mentioned drawback is completely eliminated and a very rational division of the various rooms is realised, whilst the several advantages of the known rooms with a rectangular shape are maintained.

Another object of the invention is to provide a building in which all the rooms are easily accessible from a central inner space.

A further object of the invention is to provide a building in which large built-in groups of cupboards may be arranged in the rooms, in such a manner that the cupboards are easily accessible, as well from the central inner space as from the interior of the rooms.

A still further object of the invention is to provide separating walls between the various rooms which are all of the same length and are preferably made removable, so as to enlarge or to diminish the area of the various rooms at will.

Still further objects, advantages and special features of the invention will become evident from the following description with reference to the accompanying drawings, in which some preferred embodiments of the invention have been illustrated by way of example.

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Fig. 1 shows a floor plan of a single dwelling house according to the invention.

Fig. 2 is a floor plan of a house having an outer circumference in the shape of a regular dodecagon.

Fig. 3 is a similar floor plan which is also based upon a regular dodecagon, but in which two parallel sides thereof are longer than the other ones.

Fig. 4 is a floor plan of a house having an outer circumference in the shape of a regular octagon.

Fig. 5 shows a similar floor plan based upon a regular octagon, but in which two parallel sides thereof are enlarged.

Referring to Fig. 1, the building comprises an outer circumferential wall, generally indicated by A, of which the straight wall portions or sections include obtuse angles, and a central inner space B bordered by straight wall portions or sections of the same number as and parallel to the wall sections of the outer bounding wall A. Between the outer bounding wall and the said inner space thus an annular space is formed which is destined for the rooms. The separating walls C between the rooms do not terminate in the angular points D of the outer bounding wall, but are traced perpendicularly to the outer wall sections. Consequently these separating walls are also perpendicular to the corresponding wall sections of the inner space B. A room may thus be defined by the points 1, 2, 3, D and 4. It follows that each room has always two right-angled corners along the outer bounding wall. For a bedroom beds may be placed in the said corners, whilst along the outer wall sufficient space remains for placing other furniture. In each room a considerable part of the outer wall is available, so that the room may be easily provided with large windows and/or outer doors. The walls of the inner space B are provided with the entrance doors to the various rooms and consequently each section of this interior wall has at least the width of a door opening.

In the right-angled corners formed between the separating walls C and the sections of the interior wall built-in cupboard structure may be arranged. These cupboards are accessible, as well from the inner space B as from the interior of the rooms by the door openings illustrated.

In Fig. 1 the separating walls C are all of the same length, so that a great variation in the number and size of the rooms to be formed is possible, when these walls are made removable.

The inner space B may be lit from above and comprises a staircase E leading to a garret room below the roof. The central heating may be ar-

ranged along the outer walls, whilst the electric installation is preferably mounted as much as possible along the inner space.

The floor plans according to Figs. 2–5 display certain modifications. Also in these plans the inner space B′ has in each case the same number of wall sections as the outer circumference, as for example in Fig. 2, outer wall $A^1$ has portions $E^1$, $E^1$, etc. and inner wall portions FF, etc., while the inner and outer wall sections are parallel to each other. The outer wall portions $E^1$, $E^1$, meet at obtuse angles $D^1$, $D^1$, and the partition walls $C^1$, $C^1$ separate the rooms. The area destined for the latter rooms also comprises a regular concatenation of rectangles and quadrangles composed of two right-angled triangles (*a, b, c, d,* and *d, c, e, f*) the cupboard structure G, G being located in certain inner right-angled corners of the rooms. In the polygonal outlined by the outer wall floor plan according to Fig 3 $A^2$ there is a large rectangular storage room F′ which may be used as motor garage. In this figure, the outer polygonal wall $A^2$ has the flat outer wall portions H meeting to form the obtuse angles $D^2$, etc., while the partitions $C^2$, $C^2$ meet at right angles with intermediate portions of certain of these wall portions and extend inwardly to inner wall sections I which define inner space $B^2$ and include certain right angled inner corners in the resulting rooms into which cupboard structure K, K are built in order to form part of the building. Another feature disclosed in the view is that the two parallel outer wall portions H′, H′, are longer than the other wall portions H, H, etc., so that the polygonal form of the plan as a whole is laterally elongated.

In Fig. 4, the outer wall $A^3$ also has the individual wall portions J, J thereof joined at obtuse angles $D^3$, while the inner wall portions L, L are parallel thereto and define intermediate space $B^3$. The partition walls $C^3$, $C^3$ meet with intermediate portions of the outer wall portions J at right angles thereto and certain of the resulting rooms are provded with the built-in rectangular cupboard structures M, M in inner right angled corners thereof. In Fig. 5 the left hand part illustrates the ground floor and the right hand part the first floor of the building. In the latter figure, the outer wall $A^4$ has the wall portions N, N thereof meeting at obtuse angles $B^4$, and in one respect the figure resembles the plan of Fig. 3, namely, in that the two opposite parallel wall portions N′, N′ are longer than the other



wall portions N, N. The inner wall portions O, O are parallel to the outer wall portions N, N′ etc., and defining the inner central chamber $B^4$, while partition walls $C^4$, $C^4$ etc., meet with intermediate portions of the outer wall portions N, N′ etc., to form right angles therewith. Certain of the rooms also have the built-in cupboard structures P in at least one of the inner right angled corners thereof.

In all of the forms of the building, the cupboard structures are accessible in the rooms containing them and also from the central space B, B′, $B^2$ etc., within the inner wall of the building involved. In addition, the partition walls at all times connect with the inner wall at angular junctions of the inner wall portions and with intermediate portions of the outer wall portions at right angles to the latter.

Manifestly, other variations than those shown and described may be resorted to, and parts and features may be modified or used without others within the scope of the appended claim.

What I claim is:

A polygonal building, comprising in combination, an outer wall composed of a series of flat outer wall portions meeting to form angular junctions; an inner wall composed of a series of flat inner wall portions meeting to form angular junctions, each of said inner wall portions being parallel to one of said outer wall portions so that said walls define a substantially annular enclosure; and a plurality of partition walls dividing said annular enclosure into a series of adjoining rooms, each of said partition walls forming a right angle with an intermediate portion of an outer wall and each of said partition walls at its inner end joining said inner wall at an angular junction thereof and being normal to one of said inner wall portions forming said junction.

JAN VAN HULST.


REFERENCES CITED

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

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 1,512,975 | Bright | Oct. 28, 1924 |

FOREIGN PATENTS

| Number | Country | Date |
|---|---|---|
| 157,541 | Great Britain | Jan. 17, 1921 |