MEANS FOR DESIGNING AND LAYING OUT PLANS FOR BUILDINGS

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My invention relates in general to the design of buildings and particularly to apparatus whereby the plan of a proposed building may be laid out in three dimensional form so that the prospective owner or builder may visualize more readily the relative size and placement of the various rooms within the proposed structure.

When a new building is designed it is common for the plans to be made up by an architect or by a draftsman. These plans are generally well understood by the architect and the draftsman but it has been found that the average prospective home owner experiences considerable difficulty in visualizing from the plans the completed building.

It is therefore an object of my invention to provide means whereby the floor plan of a proposed building may be laid out in miniature and from which the prospective owner may be able to visualize immediately the relative size and placement of the various rooms and of the openings from the various rooms.

An additional object is to provide means for designing and laying out the floor plans of buildings of such nature that the completed miniature design may be transported by the prospective home owner to his present dwelling, office or the like for further leisurely study.

A further object is to provide means for designing and laying out plans of buildings in miniature using readily obtainable low cost materials that may be altered in size and shape quickly and easily to allow a large number of models to be constructed without materially increasing the cost of the final model.

In the light of the above and other objects, some of which will be apparent to those skilled in the art and others will be apparent in the construction and use of this device, my invention comprises the combination, arrangement and construction of the parts of which my device is composed and by means of which I attain the above described objects as set forth in greater detail in the following disclosure which should be read in the light of the attached drawings.

In the drawings:
Figure 1 is a top plan view of the embodiment illustrated in Figures 6 and 7.

My device consists of the base member 1 which, in the preferred embodiment illustrated, is rectangular in shape and has formed on its upper surface the longitudinal dadoes or slots 2 which are intersected by the transverse dadoes or slots 3. The longitudinal and transverse dadoes or slots 2 and 3 are equally spaced throughout the top surface of the base member 1 to provide the equal square portions 4 of the same width as the dadoes 2 and 3.

A model of the desired building is constructed by using the wall sections 5 and partition sections 6. The wall and partition sections 5 and 6 are erected on the board member 1 by fitting the lower edges of the wall and partition sections in the longitudinal or transverse dadoes as required, to erect a completed structure as seen in Figure 1 in the drawings. Reference to Figure 3 in the drawings will disclose clearly how the lower edge of the wall section 5 is fitted in the transverse dado 3 of the board member 1.

The structure as illustrated in Figure 1 gives an accurate representation of a finished building but it will be appreciated that it is impossible to transport a large baseboard to different locations. To allow the removal of the assembled model from the baseboard 1, I have provided the top cover 7 which will be seen fitted over the assembled model in Figure 5 in the drawings. The top cover 7 is fastened securely to the top edges of the wall and partition members 5 and 6 with a suitable adhesive and it will be apparent immediately that with the cover 7 fixed securely, it is possible to lift the assembled model away from the base board 1 and, on reversing the cover 7, one will have a completed model fixed to the cover 7 as illustrated in Figure 4 in the drawings. While it has not been illustrated in the drawings it will be understood that it is necessary to erect the model shown in Figure 1 in the reverse form to that desired if the model as shown fixed to the cover 7 is to be an accurate representation of the finished structure. In practice I have found it advisable to erect the model in the correct form initially on the base board 1 and to adjust the various partitions and walls as desired until a model is constructed. A sheet of transparent paper is then laid over the top edges of the wall and partition members 5 and 6 and the completed outline of the model is traced on the transparent paper. The transparent paper may then be reversed and it becomes a simple matter to erect the model in reverse form on the baseboard 1 prior to gluing the top cover 7 thereon and removing the finished model from the baseboard.

The method described heretofore will be found satisfactory for making a model of a rectangular shape but if a model of polygonal shape is desired, it is necessary to support the walls or partition members when the lower edges of such members are not fitted in either the longitudinal or transverse dadoes. This construction is achieved by seating the wall members on the square portions 4 and supporting the wall and partition members by the use of small holding pieces which are fitted in the longitudinal or transverse dadoes 2 and 3. This construction is illustrated clearly in Figure 6 in the drawings with the wall numbers 8, 9, 10 and 11 resting on the square portions 4 and supported by the holding pieces 12.

What I claim as my invention is:
1. Means for designing and laying out plans of buildings comprising a base member having a plurality of intersecting transverse and longitudinal dadoes spaced to provide a plurality of equal square portions of the same width as the dadoes, a plurality of wall and partition pieces arranged to be placed on the said squares at an
angle with respect to the transverse and longitudinal dadoes and a plurality of holding pieces arranged to seat in the dadoes and to bear against the angularly disposed wall and partition pieces to prevent horizontal displacement of the wall and partition pieces.

2. In a device for designing and laying out plans of buildings, a base member having a plurality of intersecting transverse and longitudinal dadoes spaced to provide a plurality of equal square portions of the same width as the dadoes, a plurality of wall and partition pieces arranged to fit in the dadoes between the squares to represent the walls and partitions of a building, a substantially flat cover member and means for securing the cover member to the top of the assembled wall and partition pieces whereby the wall and partition pieces may be removed from the said base member and reversed to provide a representation of a building upstanding from the cover member.

3. The method of producing models of walls and partition plans for buildings which comprises, assembling wall and partition pieces by their bottom edges to create a reversed model in the dadoes in a base board having a plurality of intersecting transverse and longitudinal dadoes spaced to provide a plurality of equal portions of the same width as the dadoes, fixing a substantially flat cover member to the tops of the said wall and partition members, removing the assembled wall and partition members fixed to the cover member out of the dadoes and reversing the cover member with the wall and partition members fixed thereto to provide the desired model upstanding from the cover.

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