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A. GROSS

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BUILDING STRUCTURE

Filed May 14, 1929

Fig. 1.

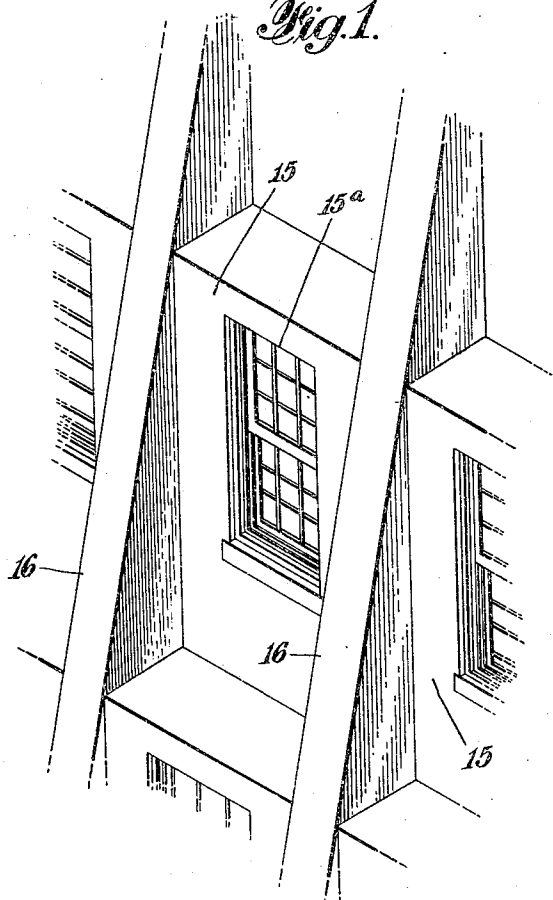


Fig. 2.

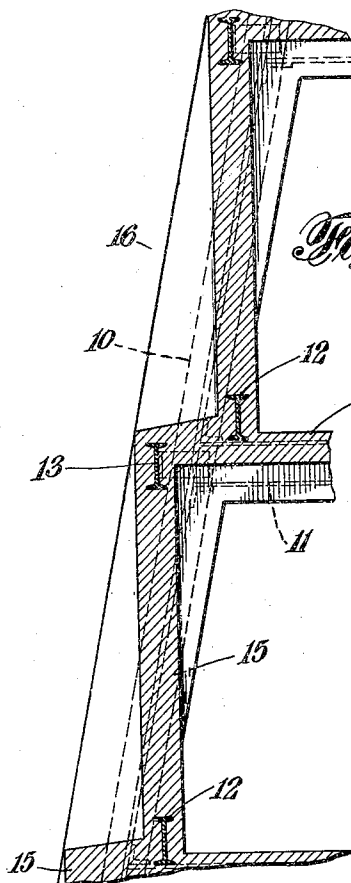
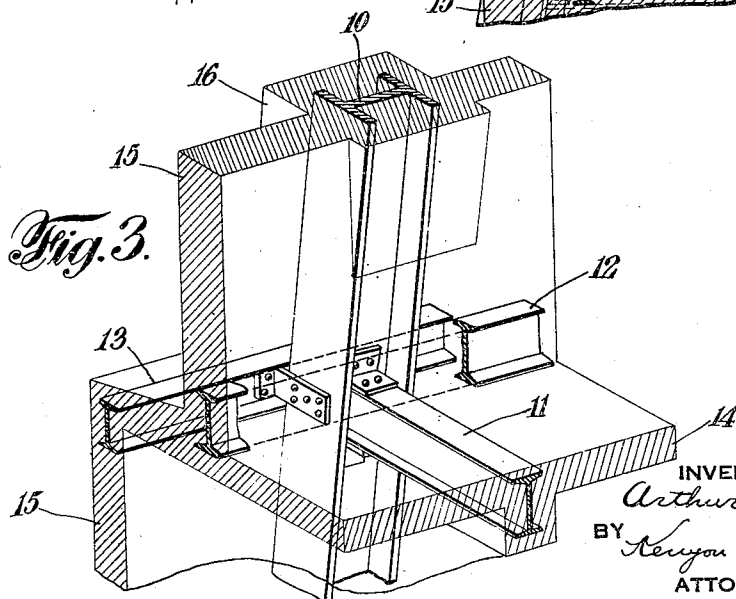


Fig. 3.



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BUILDING STRUCTURE

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This invention relates to building structures. In many localities, it is required that the yards and courts of buildings be increased according to the height of the buildings, the increase being permissible at each story. In order to produce this increase the walls must be set back as the stories are added. The usual way of accomplishing this has been to run up columns of a certain height and support from these columns, girders, which in turn carry offset columns. Because of the cost of this method of this construction, the offsets are generally made not less than two stories high.

An object of this invention is a building structure which provides an economical way of making an offset at each story.

According to the present invention, the outer columns of the building are set at the proper inclination to provide the set back required by the building regulations. The outer wall is made up of a plurality of vertical sections of uniform thickness offset at each story and supported by horizontal frame beams extending between columns and arranged on the offset sides thereof in vertical alinement. This arrangement avoids the use of the heavy girders required in connection with offset columns and permits the use of the full area of each floor space.

Other objects, novel features and advantages of this invention will be apparent from the following specification and accompanying drawings, wherein:

Fig. 1 is a perspective view of a portion of a wall of a building constructed in accordance with the invention.

Fig. 2 is a vertical section through a wall of the building, and

Fig. 3 is a phantom view of a section of the building.

The outer columns 10 of a building constructed in accordance with the present invention are preferably of the H type and are set at the angle of inclination prescribed by the building requirements. Floor girders 11 are supported by and attached to the columns 10 in any suitable manner. Frame beams 12 rest upon the floor girders 11 and extend between the columns 10. Additional

frame beams 13 extend between and are supported by the columns 10. The frame beams 13 are substantially in horizontal alinement with the floor girders 11 and each frame beam 13 is substantially in vertical alinement with the frame beam 12 of the next lower floor.

Concrete or other suitable flooring is supported by the girders 11 and vertical wall sections 15 of uniform thickness are supported between the frame beams 12 and 13, these wall sections being offset inwardly in the successive stories. In the wall sections 15 are provided such windows 15-a as may be desired and these windows may be arranged in any suitable manner. The columns 10 are enclosed in concrete sections 16 which have sloping outer faces.

In a building structure of this character each story is set back and a maximum floor space obtainable is provided. The use of heavy girders is avoided and the wall sections are set plumb, thus obtaining advantage of the minimum dimensions permitted by the building requirements. The previous application of columns and girders is eliminated and compliance with the set back requirements is obtained in an inexpensive and efficient manner.

Although reference has been made to the use of concrete for the walls and floors of the building, it is to be understood that any other suitable material such as brick or the like may be used instead of concrete. Moreover, it is to be understood that various modifications may be made without in any way departing from the spirit of the invention as defined in the appended claims.

I claim:

1. In a building structure, inclined columns extending substantially the full height of the building, horizontal frame beams extending between and supported by said columns at different levels, pairs of said beams being in vertical alinement and wall sections supported between said frame beams.
2. In a building structure, inclined columns extending substantially the full height of the building, horizontal frame beams extending between and supported by said col-

umns at different levels, and wall sections interposed between pairs of frame beams, the beams of each pair being located at opposite sides of the columns and in vertical alinement with each other.

3. In a building structure, inclined columns extending substantially the full height of the building, horizontal girders supported by said columns, a set of horizontal frame beams extending between and supported by said girders, an additional set of horizontal frame beams extending between and supported by said columns, each beam of one set being in vertical alinement with a beam of the other set, and wall sections supported by each pair of beams.

4. In a building structure, inclined columns extending substantially the full height of the building, horizontal girders supported thereby, a set of horizontal frame beams supported by said girders, an additional set of horizontal frame beams supported by said columns and arranged on the opposite side of said columns from said first set and wall sections supported between each pair of frame beams, each frame beam of a pair being in substantially vertical alinement with the other beam.

5. In a building structure, inclined columns extending substantially the full height of the building, floor girders supported thereby, a set of horizontal frame beams supported by the floor girders, an additional set of horizontal frame beams supported by said columns in substantially horizontal alinement with the floor girders, each beam of the first set being substantially in vertical alinement with the next lower beam of the other set, and wall sections supported by the vertically alined beams.

In testimony whereof, I have signed my name to this specification.

ARTHUR GROSS.

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