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M. TOSELLI
BUILDING STRUCTURE
Filed May 28, 1968

3,524,287

FIG 1

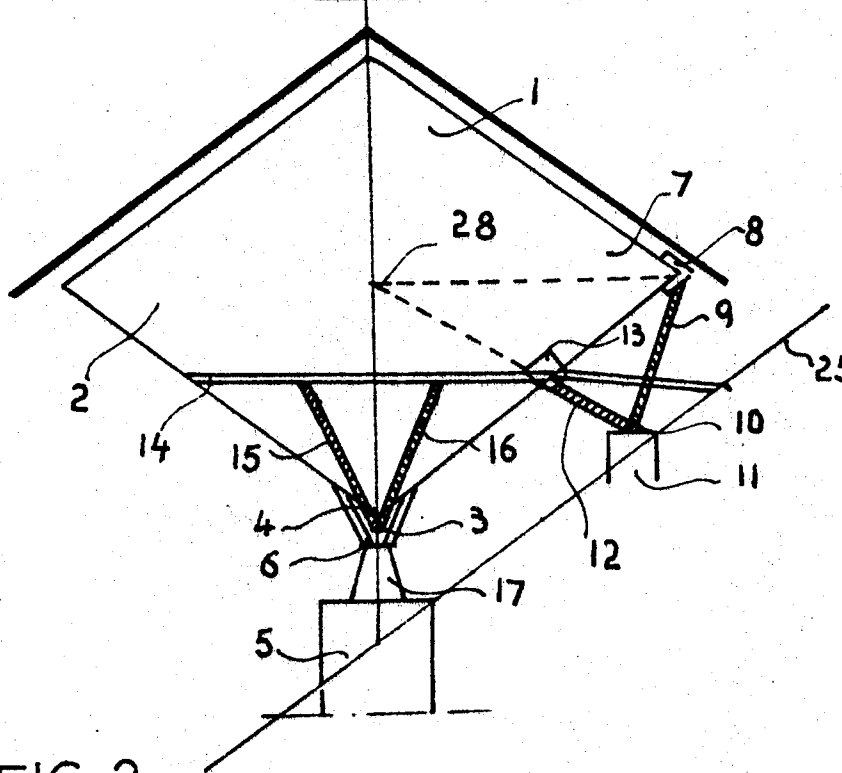


FIG 2

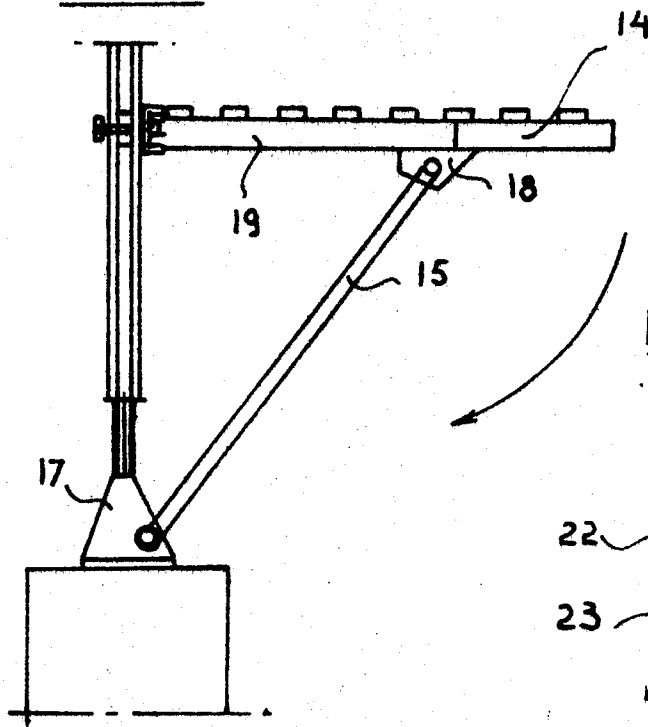
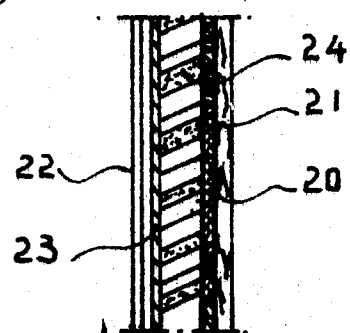


FIG 3



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3,524,287

BUILDING STRUCTURE

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1 Claim

ABSTRACT OF THE DISCLOSURE

A building structure, especially for use on steeply sloping sites, has a longitudinal horizontal beam at a first lower point of the sloping site to act as a base, an anchor means disposed at a second higher point of the site, and a hollow casing of generally rhombic transverse vertical cross-section, the casing resting on the support beam by its lower apex and being coupled to the anchor means at its peripheral edge.

The object of the invention is to provide a construction of combined stabilising device for the construction of dwellings or single houses on an irregular site, or on steeply-sloping hillsides.

Its characteristic features are the means used, taken either together or separately, and more particularly the fact that the structure of the dwelling forms a hollow casing in the shape of a rhomb, so that the upper triangle, joined to the lower triangle the upper part of which constitutes a beam, concentrates the whole of the vertical loading on an axis; the whole in such a manner as to enable it to be stabilised on a single perpendicular point situated at the summit of the transversal lateral triangle by means of a single V-shaped framework anchoring to a base fixed at the top of the sloping site.

In the accompanying drawings, which show a non-limiting example of one of the methods of construction of the invention:

FIG. 1 shows the combination of stabilising and anchoring frameworks;

FIG. 2 shows the axial anchorage, on a different scale;

FIG. 3 shows a sectional view of a method of manufacture of the casing.

The building, the upper triangle 1 of which constitutes the double pitched roof which joins on to the lower triangle 2 concentrating the whole of the loading on the point 3 formed by the arris 4 designed as a beam, is fixed to the base 5.

The support 6 may be articulated in order to provide greater stability as well as to facilitate orientation.

The end of the triangle 7 is reinforced with a stringer board 8 which is used to retain the arm 9 of the U-shaped framework, the apex 10 of which is fixed on the base 11 and the arm 12 is connected to the stringer board 13 joined to the building.

The overhanging balcony 14 FIGS. 1, 2 is stabilised by the slanting braces 15, 16. These braces are fixed at one end to the fixed mounting 17 and at the other end to the stringer board 18 fitted on the lower facing 19 of the balcony 14.

The walls of the building are preferably made up of an

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outside cladding of creosoted timber 20 and tarred felt 21. The inside face consists of a laminate 22 lined with tarred felt 23.

These two faces delimit a space 24 filled with a heat-proof and sound-proof synthetic resin such as polystyrene or polyurethane foam or a similar material.

The advantages of this device are immediately obvious.

The weight and any lateral forces acting from above are supported in relation to the site 25 by means of a single V-shaped unit which eliminates all bracing, propping, etc.

The point of concentration 3 receives all of the pulling and compression strains of the structure.

This method of anchoring makes it possible to build on a much more sloping site 25. This dual-purpose support from above and laterally is provided by a smaller framework which is therefore stronger because it is less likely to distort and is more secure.

The stabilising action is completed on a perpendicular plane by the bracing of the balcony platform 14, which is joined to the shell. This overhanging part is supported by two V-shaped units 15 and 16 the end of which hooks on to the beam forming the base angle 4 of the building.

This form of construction is just as effective in regard to omni-directional pull as to centralised compression and is adequate to ensure that the building is kept vertical along the precise axis concentrating the whole of the resultant forces on the point of maximum strength.

The walls, strengthened by the provision of the claddings 20, 22 reinforced by the insulating linings, stand up to all kinds of weather and contribute to the stiffening of the framework.

I claim:

1. A building structure, particularly for erection on steeply sloping sites, comprising a longitudinal horizontal base support member, a hollow casing the transverse vertical cross-section of which is two isosceles triangles disposed one above the other and having a common base line, said casing being mounted on the base support at the apex of the lower of said isosceles triangles, an anchoring member disposed at a spacing along the slope of the site from the base support member, and support means connecting said anchoring member to the hollow casing at an end of the common base line, said support means having two arms meeting at an angle at their point of connection to the anchoring member, one said arm being connected to the hollow casing at an end of the common base line thereof, and the other said arm being connected to the hollow casing at a spaced point below the common base line thereof.

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