June 10, 1930. J. W. KINSER 1,762,397

WALL BOARD HOIST

Filed March 16, 1929

FIG. 1.

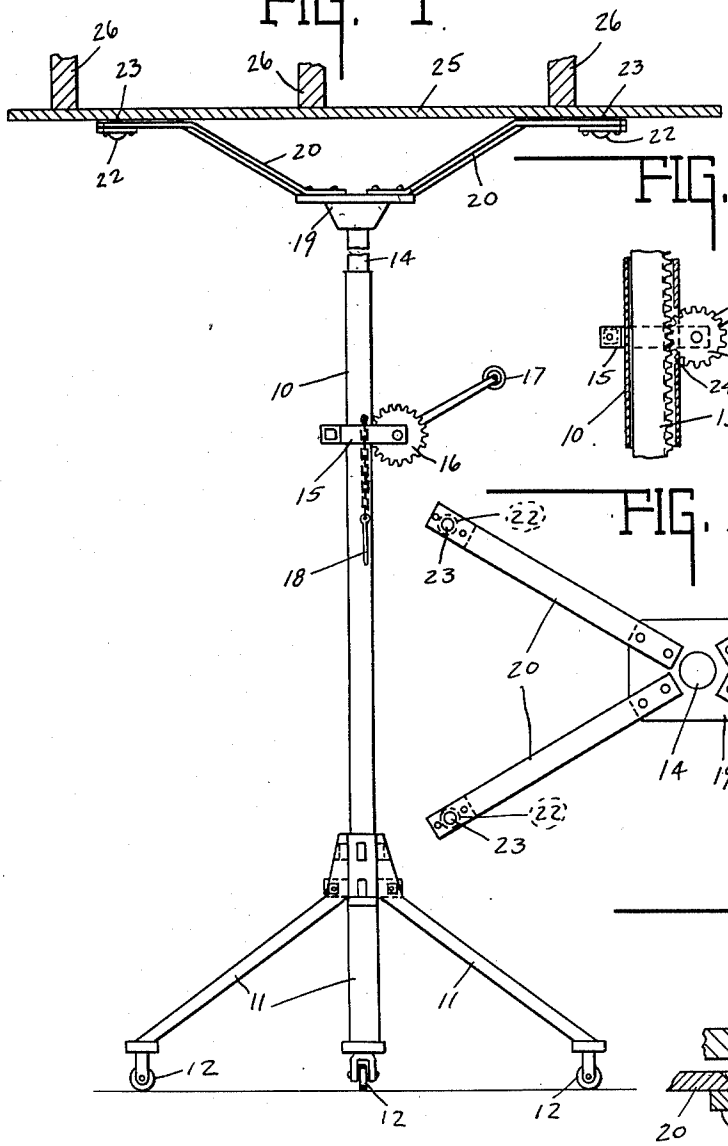
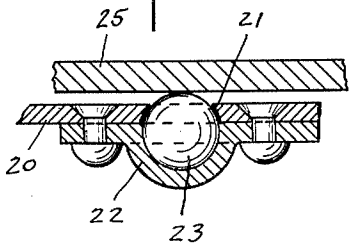


FIG. 2

FIG. 3

FIG. 4



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WALL-BOARD HOIST

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This invention relates to a hoisting apparatus for applying wall board and the like to ceilings.

The growing use of prepared wall boards has been greatly hindered by the difficulty of applying such boards to the ceilings of rooms. It is comparatively easy to adjust a section of board to the wall of a room and hold it in place while it is being fastened. However, to hold a section weighing perhaps fifty pounds against the ceiling, adjust it to its proper position and make it fast is a piece of work which sometimes requires as many as three or four men.

The object of the present invention is to provide an apparatus whereby sections of wall board may be applied to a ceiling without this large expenditure of labor.

One feature of the invention resides in the light and simple construction of the apparatus.

Another feature resides in the provision of yielding means for holding the board against the ceiling joists to allow for irregularities in the joists and in the floor.

Another feature of the invention resides in the provision of means whereby a board held against ceiling joists may be thereafter easily moved into the proper relation with adjacent sections of board.

Other features of the invention and the full nature thereof will be understood from the accompanying drawings and the following specification and claims:

In the drawings, Fig. 1 is an elevational view of the complete hoisting apparatus. Fig. 2 is a sectional view of a part of the apparatus shown in Fig. 1. Fig. 3 is a plan view of the upper part of Fig. 1. Fig. 4 is a detail of the anti-friction means for adjusting the board when held against the ceiling.

In the drawings a hollow vertical tube 10, preferably of rectangular cross section, is supported at its lower end by a plurality of legs 11 having casters 12 in contact with the floor. Slidably carried inside of the tube 10 is a rack member 13 having at its upper end a reduced portion 14 of circular cross section. A bearing member 15 is clamped about the tube 10 at a convenient point. A gear 16 is rotatably mounted in said bearing member and meshes with the teeth of the rack member 13 through an opening 24 in the side wall of the tube 10. A handle 17 serves to rotate the gear and a pin 18 is provided to be placed between the teeth of the gear and the teeth of the rack to prevent relative motion thereof at any desired position. By this construction, the handle 17 may be rotated rotating the gear 16 and raising or lowering the rack member 13. The rack member is held at any desired height by inserting the pin 18 between the gear teeth.

Rotatably carried on the circular portion 14 of the rack member 13 is a spider 19 carrying a plurality of arms 20. These arms are of a suitable flexible material to yieldingly hold a section of wall board 25 against the ceiling of a room and to allow the same to adjust itself to irregularities in the ceiling joists 26 or in the floor.

In the outer end of each spring arm 20 is an opening 21. Beneath this opening is riveted a ball-holding member 22 adapted to support a ball 23. The edges of the opening 21 project in such manner as shown in Fig. 4 to retain the ball in place, the upper edge of the ball projecting beyond the face of the spring arm 20. By this construction the upper edge of the ball is in contact with the wall board when the latter is placed against the ceiling joists. The wall board may, therefore, be easily adjusted to any desired position relative to adjacent sections of wall board. The provision of the rotating spider 19 also facilitates the adjustment of the wall board.

While the foregoing describes a preferred embodiment of the invention, the details thereof may be considerably varied without departing therefrom. For example, the arms 20 might be of a non-yielding construction carrying yielding means such as leaf springs or coil springs at their points of contact with the wall board.

Other forms of anti-friction support might be provided in place of the ball-bearing here shown.

The invention claimed is:

1. A wall board hoist including yielding means for supporting a section of wall board, and mechanism for elevating said yielding means to bring the wall board into contact with the surface to which it is to be fastened.

2. A wall board hoist including yielding means for supporting a section of wall board, hoisting means for elevating said yielding means to bring the wall board into contact with the surface to which it is to be fastened, and anti-friction bearings on said yielding means adapted to allow relative movement between said yielding means and the wall board when said wall board is in contact with the said surface.

3. A wall board hoist including yielding means for supporting a section of wall board, mechanism for elevating said yielding means to bring the wall board into contact with the surface to which it is to be fastened, and a rotatable connection interposed between said elevating mechanism and said yielding means.

4. A wall board hoist including a vertical member, supporting legs therefor, a second vertical member slidably carried on said first mentioned member, means for raising and lowering said second vertical member with respect to said first vertical member, and a yielding support member supported on said second vertical member adapted to yieldingly support a section of wall board.

5. A wall board hoist including a vertical member, supporting legs therefor, a second vertical member slidably carried on said first mentioned member, means for raising and lowering said second vertical member with respect to said first vertical member, and a rotatable yielding support member supported on said second vertical member adapted to yieldingly support a section of wall board.

In witness whereof, I have hereunto affixed my signature.

JAMES W. KINSER.