

Aug. 20, 1929.

A. S. BLANDFORD

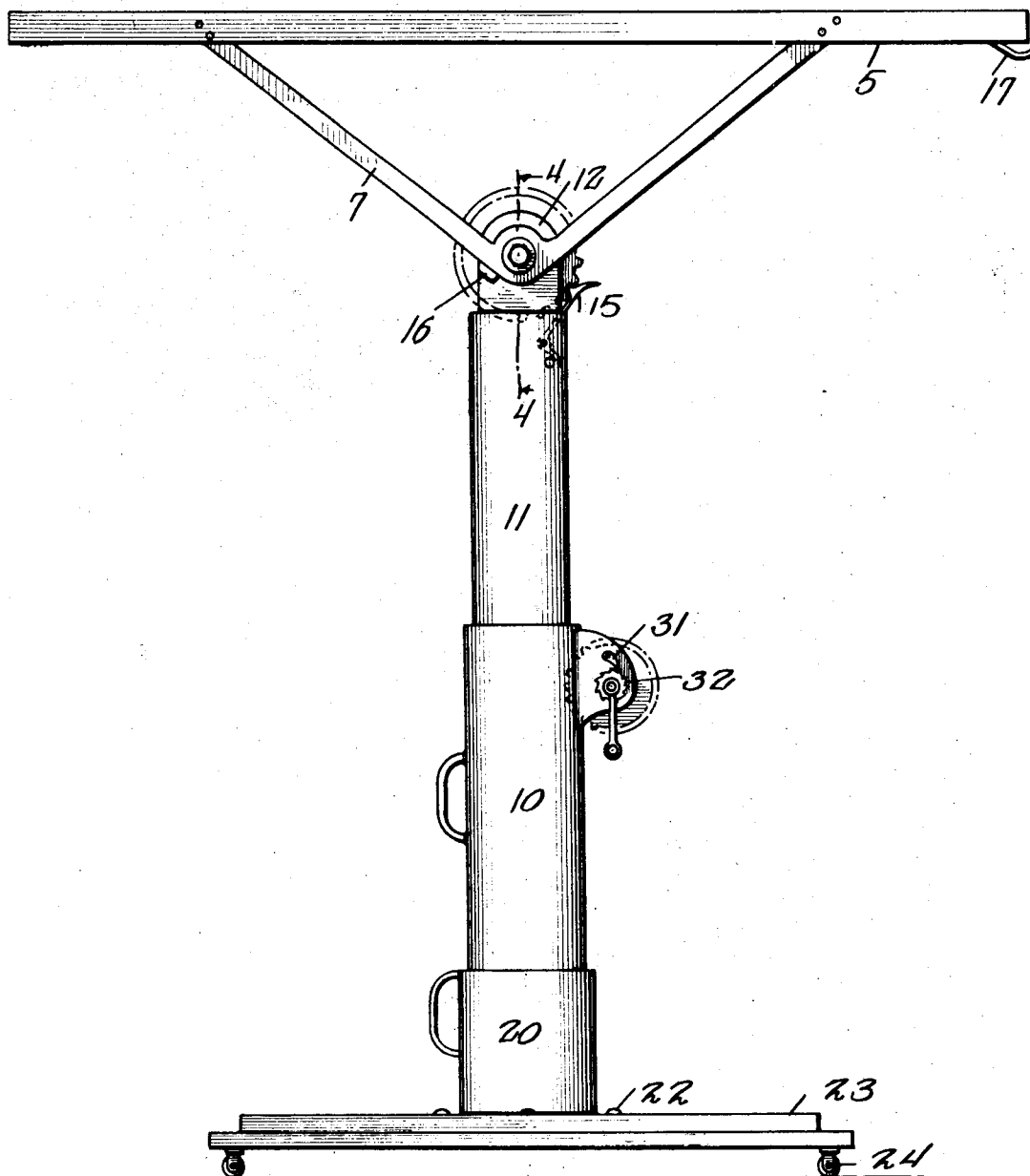
1,725,329

WALL BOARD HANDLING DEVICE

Filed Aug. 19, 1927

3 Sheets-Sheet 1

Fig. 1.



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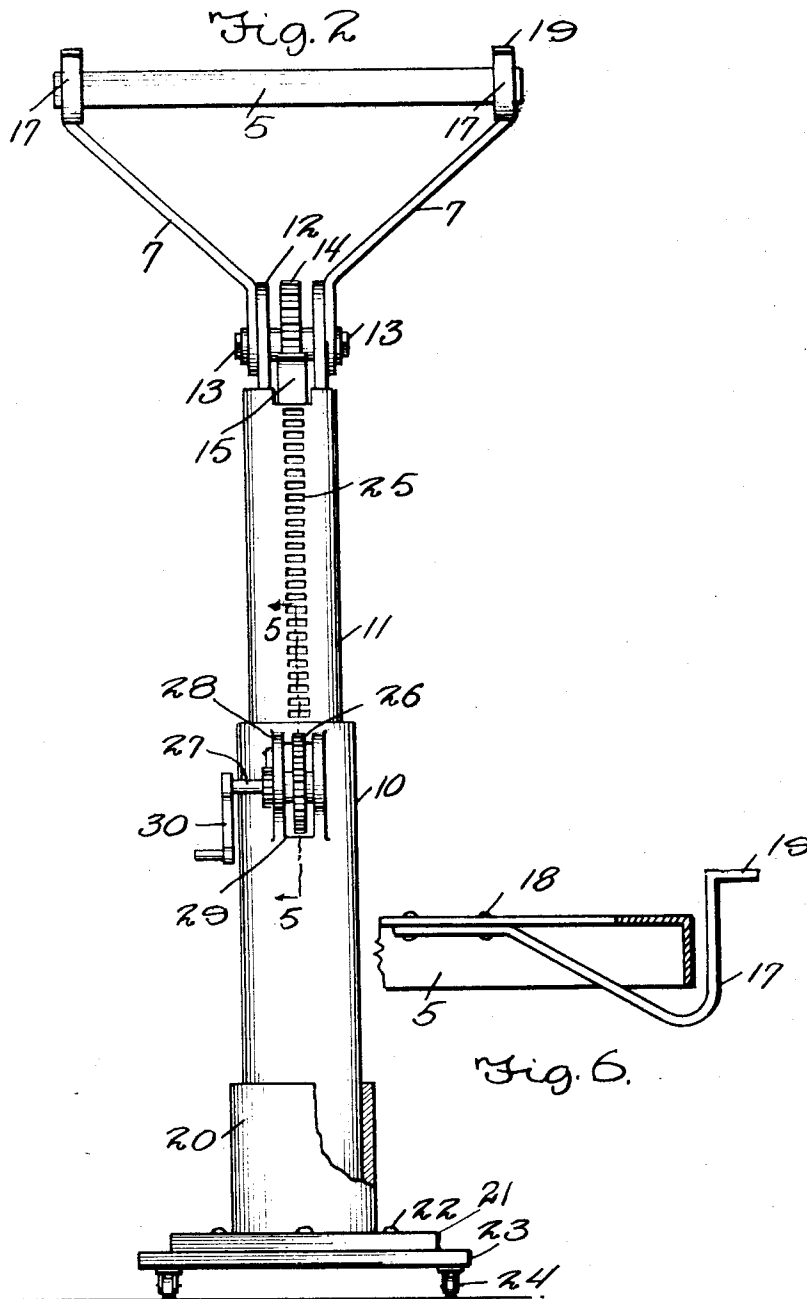
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3 Sheets-Sheet 2



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3 Sheets-Sheet 3

Fig. 3.

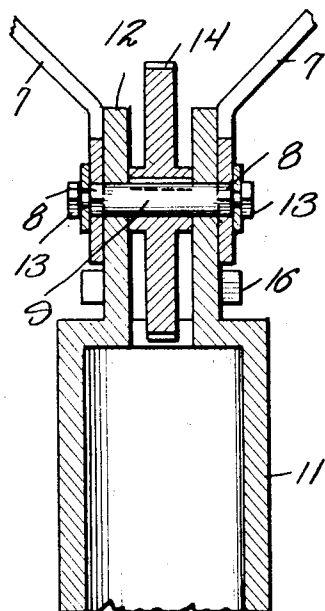
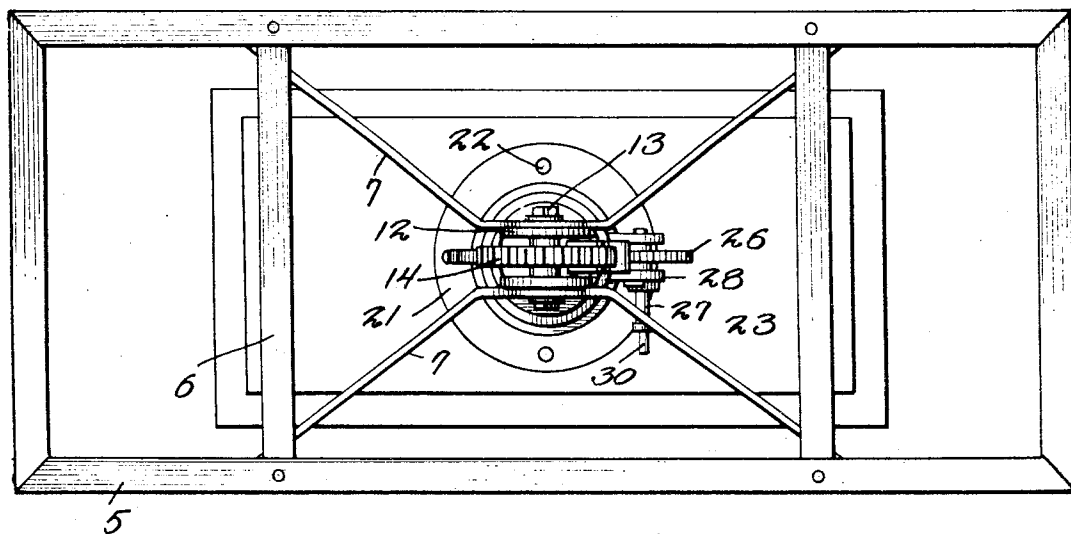


Fig. 4.

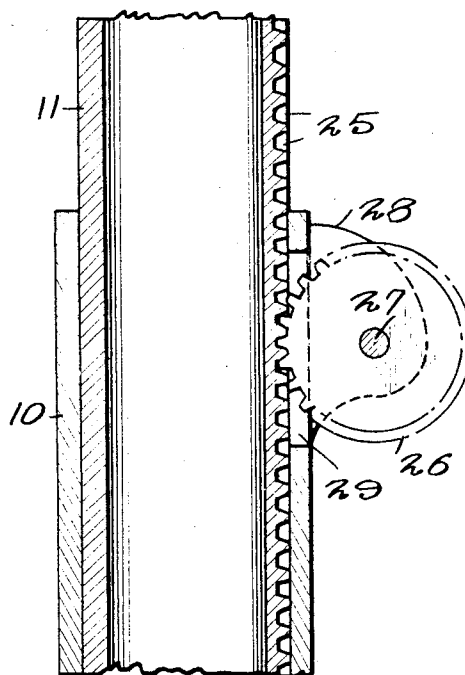


Fig. 5.

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WALL-BOARD-HANDLING DEVICE.

Application filed August 19, 1927. Serial No. 214,166.

This invention relates to a device for handling wall boards, and has more particular reference to an appliance for facilitating placing of sheets of plaster-board or the like to ceilings and holding them in place while being nailed or otherwise secured.

Sheets of plaster-board are quite wide and heavy so that placing of the same in the construction of ceilings represents a quite hard task and requires the services of at least two workmen.

The primary object of the present invention, therefore, is to provide a device by the use of which a single workman may easily place the sheets of plaster-board or the like with facility, and by means of which the sheets of plaster-board or the like will be effectively held in place so that the workman will have both hands free for securing or nailing the sheets in place while being so held by the device.

To attain the above objects, the invention contemplates the provision of a platform for supporting reception of the plaster-board sheets to be placed, and manually collapsible and extensible means for supporting the platform whereby the latter may be lowered for initial reception of the plaster-board sheets and then raised for elevating the same to the desired position.

A further object of the invention is to make provision for facilitating placing of the sheets of plaster-board upon the platform.

Other objects will appear as the nature of the invention is better understood, and the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawings, wherein like reference characters indicate corresponding parts throughout the several views.

Figure 1 is a side elevational view of a wall board handling device constructed in accordance with the present invention;

Figure 2 is a front elevational view of the device shown in Figure 1; partly broken away and in section;

Figure 3 is a top plan view thereof;

Figure 4 is an enlarged fragmentary vertical section taken upon line 4—4 of Figure 1;

Figure 5 is a view similar to Figure 4 taken upon line 5—5 of Figure 2; and

Figure 6 is an enlarged fragmentary longitudinal sectional view showing an end portion of the platform and one of the resilient stops or abutments for maintaining the sheets of plaster-board upon the platform under certain conditions.

Referring more in detail to the drawings, the present invention embodies an elongated rectangular platform 5 which is preferably of frame-like construction and composed of rigidly connected metal end and side rails as shown. This platform is adapted for supporting reception of one sheet of plaster-board or the like at a time, and the side rails are connected by transverse braces 6 for reinforcing purposes.

Rigidly secured to the underside of the platform 5 intermediate the ends of the latter and adjacent the sides of the same are a pair of downwardly converging V-shaped brackets 7 whose lower intermediate portions are arranged in spaced vertical relation and provided with transversely aligned apertures adapted for snug reception of the squared end portions 8 of a pin or pivot bolt 9.

The invention further embodies an extensible support preferably in the nature of a column composed of telescopic sections 10 and 11, and the smaller upper section 11 of the column is provided at its upper end with a pair of spaced posts 12 in which the pivot pin or bolt 9 is journaled so that the platform 5 is pivotally mounted upon the column for tilting about a horizontal axis. The ends of the pivot pin or bolt 9 are provided with reduced extensions on which are threaded nuts 13 for retaining the brackets 7 engaged with the polygonal portions 8 of the pivot pin or bolt 9 whereby tilting of the platform will effect turning movement of said pivot pin or bolt, in an obvious manner. A gear wheel 14 is secured upon the intermediate portion of the pivot pin or bolt 9 between the posts 12, and the teeth of this gear 14 are normally engaged by means of a spring pressed pawl 15 carried by the upper end of the column section 11 so that turning movement of the bolt 9 is freely permitted in one direction and prevented in the other direction except when the pawl 15 is manually released. In this way, the platform 5 may be tilted to an inclined position by turning the pivot pin or bolt 9 in a clock-wise direction as viewed in Figure 1, upon release of the

pawl 15, and when the platform is in tilted position it is obvious that a sheet of plaster-board may be more readily placed thereon than when the platform is in a horizontal position as shown. When the sheet of plaster-board has been placed upon the platform 5, the latter may be readily returned to a horizontal position by lifting upwardly upon the right-hand end of the platform 5 as viewed in Figure 1, the teeth of the gear 14 freely ratcheting past the pawl 15 in this operation. Suitable rigid lugs 16 are provided upon the outer sides of the posts 12 in position to be engaged by the brackets 7 for limiting the upward swinging movement of the platform 5 to a position wherein the same is horizontal, and when the platform is so positioned horizontally, it will be effectively maintained in such position by the pawl 15 unless the latter is manually released from the gear 14. Suitable stops 17 are provided at the end of the platform 5 which is lowermost when the platform is tilted to an inclined position, and these stops project upwardly above the plane of the platform 5 at the end of the latter as shown in Figure 6 to engage the adjacent end edge of the sheet of plaster-board so that the latter will not slide off of the platform when in an inclined position. The stops 17 are preferably provided at the corners of the platform and preferably consist of resilient strips secured at their inner ends as at 18 to the platform and curved to extend around the adjacent end rail of the platform and then upwardly past the latter. The stops further embody horizontal free end portions 19 adapted to engage the ceiling frame construction slightly prior to final upward movement of the platform and engagement of the sheet of plaster-board with the ceiling frame construction. It will thus be seen that the stops 17 are forced downwardly in placing the sheet of plaster-board until the end portions 19 are flush with the upper surface of the sheet of plaster-board and the stops placed under tension so as to have a steadying effect upon the platform.

The extensible column is preferably mounted for revolving about a vertical axis so that the platform 5 may be turned to the desired position for properly placing the sheets of plaster-board, and for this purpose the lower section of the column is rotatably fitted in a socket 20 at its lower end. The socket 20 consists of a cylindrical base flanged at its lower end as at 21 and rigidly secured through its flange as at 22 upon a relatively large horizontal support 23 provided with castor wheels 24 or the like for facilitating ready movement of the device from place to place. It will be seen that with the end portions 19 of the stops 17 engaged with the ceiling frame construction, the column will be effectively prevented from turning in the

base member 20 so that the sheet of plaster-board may not be readily displaced from proper position, preparatory to or during the nailing or securing operation.

The extension or collapsing of the column is preferably effected by movement of the upper column section 11 through the medium of a rack and pinion mechanism. For this purpose, the upper column section 11 is provided with a longitudinal series of openings 25 which present what may be termed rack teeth therebetween, and these teeth are engaged by a spur gear or pinion 26 which is secured upon a horizontal shaft 27 that is journaled in a pair of external ears 28 rigidly provided upon the upper end of the lower column section 10. The gear or pinion 26 is disposed between the ears 28 and in registry with an opening 29 provided in the column section 10 so that said pinion 26 projects through the opening 29 into engagement with the teeth of the column section 11. It is thus apparent that upon turning the pinion 26 the upper column section 11 may be raised and lowered for effecting extension or collapse of the column. To facilitate turning of the pinion 26 the shaft 27 may be extended at one end and provided with a rigid crank or handle 30, and in order to prevent turning of the pinion 26 freely in a direction for permitting lowering of the column section 11, a suitably actuated pawl 31 may be carried by one of the ears 28 in position to engage a ratchet wheel 32 fixed upon the shaft 27. It will be seen that the pinion 26 will be prevented from turning to allow the section 11 of the column to lower, by means of the pawl 31 unless said pawl be manually released, although turning of the pinion 26 in the opposite direction to effect raising of the column section 11 is freely permitted by said pawl 31. Thus, positive retention of the column section 11 in extended or raised position is ensured. In operation, the pawl 31 is released so as to allow the pinion 26 to turn and the column section 11 to lower. The pawl 15 is then manually released and the platform 5 tilted to an inclined position so that the brackets 7 move away from the lugs 16. The sheet of plaster-board is then placed upon the platform 5 with an end edge engaging the inner sides of the stops 17 as shown in Figure 6, whereupon the platform 5 is returned to its horizontal position as shown in Figure 1. The crank or handle 30 is then turned in a clock-wise direction to effect raising of the column section 11 until the sheet of plaster-board is brought into proper place for being secured, the platform 5 being swung horizontally and the device moved over the supporting surface, if found necessary, to effect proper placing of the platform and the sheet of plaster-board disposed thereon. With the sheet of plaster-

board thus held in position by the device the operator will have both hands free to nail or otherwise secure the sheet of plaster-board in place, as is apparent.

5 From the foregoing description it is believed that the construction and operation as well as the advantages of the present invention will be readily understood and appreciated by those skilled in the art.

10 What I claim as new is:—

1. A wall board handling device including a vertically extensible support, and a platform adapted for supporting reception of a sheet of plaster-board or the like and pivotally mounted upon the upper end of the support for tilting about a horizontal axis, means to limit tilting movement of the platform in one direction to a position wherein the platform is horizontally disposed, and manually releasable means for preventing tilting of the platform in the opposite direction, and stop means carried by the end of the platform which is lowermost when the platform is tilted in said other direction and arranged to engage an end edge of a sheet of plaster-board disposed upon the platform, said stop means embodying resilient members adapted to engage and to be depressed by a ceiling frame construction prior to engagement of the sheet of plaster-board with the latter for steadying the platform.

2. In a vertically shiftable tiltable platform designed to lift and hold wall board in horizontal position for securing, means including resilient stops secured to the platform adjacent to one edge thereof designed to engage an adjacent edge of a wall board in position thereagainst when the same is tilted, and shiftable when the board has been raised to position to release the same.

3. In a vertically shiftable tiltable platform designed to lift and hold wall board in horizontal position for securing, means including resilient stops secured to the platform adjacent to one edge thereof designed to engage an adjacent edge of a wall board in position thereagainst when the same is tilted, and shiftable through contact with the structure to which the board is to be

secured, to disengage the board to facilitate its arrangement in position.

4. In a wall board lifting device of the character described, a platform, means for shifting said platform vertically, means for swinging said platform about a horizontal axis, to arrange the same in a convenient tilted position for the application of a sheet of wall board thereto, and resilient holding devices including leaf spring stops secured to the platform adjacent to one edge thereof and normally extending beyond the face thereof, for engaging an adjacent edge of a wall board to hold the same in position, said holding devices being designed to be shifted through contact with the structure to which the board is to be applied.

5. A wall board handling structure, comprising a standard formed of a plurality of telescoping sections, means for extending said sections, a pair of ears carried upon the upper end of the upper one of said sections, a shaft mounted between said ears and projecting beyond the outer faces of the same, a ratchet carried upon said shaft between the ears, a manually controlled element engaging said ratchet to prevent turning thereof, a wall board supporting platform, and bracket members each secured to one end of said shaft and acting to support said platform in adjusted position.

6. A wall board handling structure, comprising a standard formed of a plurality of telescoping sections, means for extending said sections, a pair of ears carried upon the upper end of the upper one of said sections, a shaft mounted between said ears and projecting beyond the outer faces of the same, a ratchet carried upon said shaft between the ears, a manually controlled element engaging said ratchet to prevent turning thereof, a wall board supporting platform, and bracket members each secured to one end of said shaft and acting to support said platform in adjusted position, and means carried by said ears for limiting the swinging movement of said brackets in one direction to stop said platform in horizontal position.

In testimony whereof I affix my signature.

ALSACE S. BLANDFORD.