July 31, 1928. 1,679,259

H. NEWMAN

SUPPORTING DEVICE

Filed Oct. 12, 1926

Fig:1.

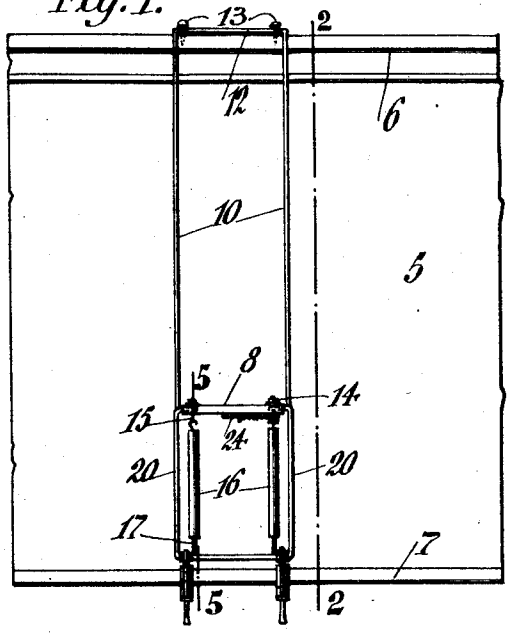


Fig:2.

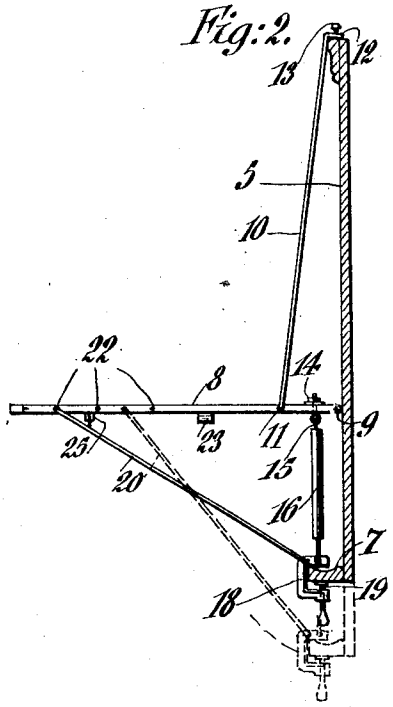


Fig:3.

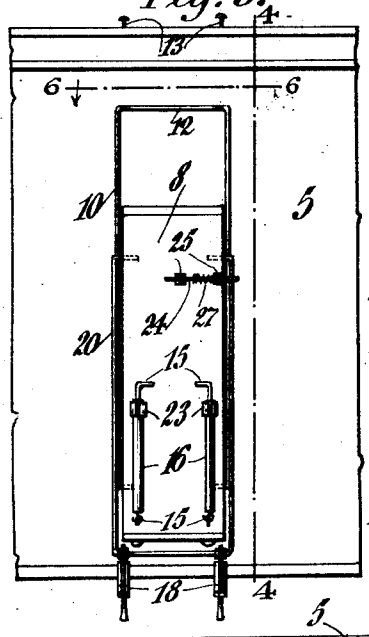


Fig:4.

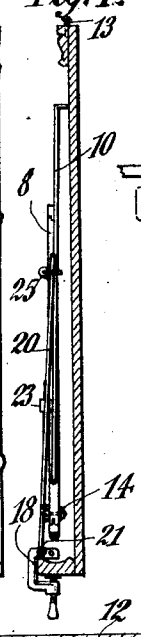


Fig:5.

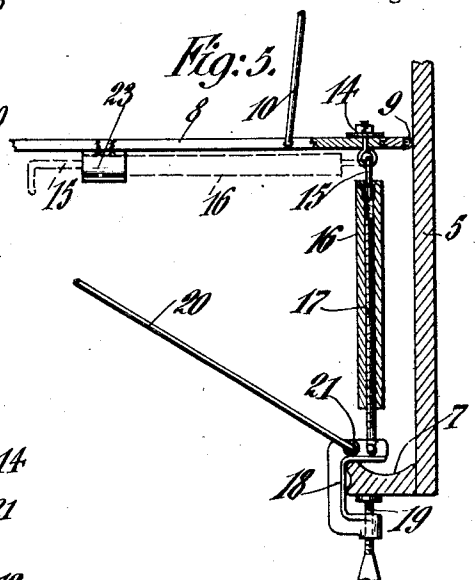
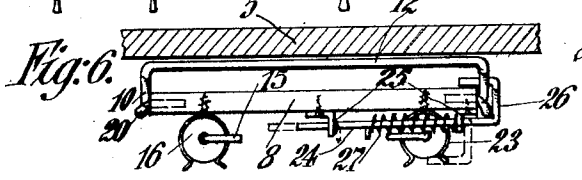


Fig:6.



INVENTOR
Hugo Newman
BY C. P. Goepel
ATTORNEY

Patented July 31, 1928. 1,679,259

UNITED STATES PATENT OFFICE.

HUGO NEWMAN, OF NEW YORK, N. Y.

SUPPORTING DEVICE.

Application filed October 12, 1926. Serial No. 141,177.

This invention relates to supporting devices, and has for its primary object to provide a supporting device which may be readily attached to a relatively fixed structure, and which when not in use, can be very compactly folded and arranged with respect to said structure without complete detachment therefrom.

More particularly, it is the purpose of my present invention to provide a foldable or collapsible supporting device which may be attached to the blackboard of a school or class room for the purpose of supporting a stereopticon lantern, motion picture machine or other device, and it is one of the important features of my invention to provide a simple means for easily and quickly adjusting the supporting member vertically relative to the face of the blackboard and rigidly sustaining said member in a horizontal position substantially at right angles to the face of the blackboard.

It is an additional object of the invention to provide simple means for securing the several relatively adjustable parts connected with the supporting member against relative movement when said supporting member is folded to an inoperative position closely adjacent to the blackboard and in substantially parallel relation with the face thereof.

With the above and other objects in view, the invention consists in the improved supporting device, and in the form, construction and relative arrangement of the several parts thereof as will be hereinafter more fully described, illustrated in the accompanying drawings, and subsequently incorporated in the subjoined claims.

In the drawings, wherein I have disclosed one simple and practical embodiment of the invention and in which similar reference characters designate corresponding parts throughout the several views,—

Figure 1 is a front elevation of a section of a blackboard having my improved supporting device applied thereto;

Fig. 2 is a sectional view taken substantially on the line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 1 showing the supporting device folded against the face of the blackboard;

Fig. 4 is a sectional view taken substantially on the line 4—4 of Fig. 3;

Fig. 5 is a horizontal section taken on the line 5—5 of Fig. 1, and

Fig. 6 is a detail horizontal section taken on the line 6—6 of Fig. 3.

Referring in detail to the drawings, for the purpose of illustrating one application of my present invention, I have shown a section of a blackboard 5 having the molding 6 at its upper edge and an eraser supporting rail 7 at the lower edge thereof. However, it is to be understood that the supporting device to be presently described in detail is not necessarily limited in its utility to application to a school room blackboard, but may likewise be applied to various other stationary structures.

As herein shown, the supporting member may consist of a board 8 of suitable length and width, to one end edge of which one or more resilient cushions or bumper members indicated at 9 may be attached for engagement against the face of the blackboard 5. Adjacent to this end of the board 8, the angularly bent ends of an elongated U-shaped wire 10 are pivotally engaged in suitable sockets or recesses 11 provided in the edges of the board. The intermediate portion of this U-shaped wire member is also angularly offset or bent as at 12 and is adapted for engagement over spaced pins indicated at 13 which are fixed in the molding strip 6 of the blackboard.

Between the sockets 11 and the adjacent end edge of the board 8 an eye-bolt 14 is fixed in said board near each edge thereof and to these eye-bolts the members 15 are loosely connected. Turnbuckle sleeves 16 have a swiveled connection at one of their ends with the members 15, each sleeve being provided with an internally threaded bore to receive the threaded rod 17. One end of each rod 17 is pivotally connected with an arm of a U-shaped bracket 18 in the other arm of which the clamping screw 19 is mounted. This bracket is adapted for engagement over the eraser supporting rail 7 as clearly shown in Fig. 5 and by adjusting the clamping screw 18 to tightly engage the same against the under side of said rail, the bracket may be rigidly fixed in position. Preferably I provide the rods 17 with angularly bent ends for detachable engagement in suitable openings provided in the arms

of bracket members 18, though it will be understood that any other desired means may be utilized for effecting this detachable pivotal connection between said rods and the brackets.

A second elongated U-shaped wire member 20 has its intermediate portion loosely engaged through additional openings 21 in the arms of the brackets 18 to which the rods 17 are attached. The ends of this wire member 20 are angularly bent for engagement in any one of a series of longitudinally spaced sockets or recesses 22 in the edges of the member 8. Thus, as indicated in Fig. 2, by adjusting the turnbuckle sleeve 16 and engaging the ends of the wire member 20 in the proper sockets 22, the device may be readily applied to blackboards or other structures of various heights. By then engaging the intermediate portion of the wire member 10 over the fixed pins 13 and tightly clamping the brackets 18 to the rail 7, the supporting member 8 will be rigidly held in a substantially horizontal position with respect to the face of the board 5. The cushion or bumper members 9 on the end of the supporting member 8 contact with the face of the blackboard and obviate scratching or marring the same.

When the supporting device is attached and arranged in the position shown in Figs. 1 and 2 of the drawings, it will be seen that a rigid and substantial support is provided for the stereopticon lantern, motion picture machine or other object. When the device is not in use, it may be compactly folded and easily and quickly arranged against the face of the board 5. Thus, it is only necessary to detach the rods 17 from the arms of the brackets 18 and then swing the inner end of the supporting member 8 outwardly and downwardly after the member 10 is detached from the pins 13. The supporting member 8 may then be moved inwardly closely adjacent to the face of the board in substantially parallel relation thereto as seen in Fig. 4 of the drawings. In order to hold the adjustable turnbuckles and the members 10 and 20 against relative movement in this folded condition of the device, I provide spring clips 23 fixed to the under side of the member 8 in which the turnbuckle sleeves 16 are adapted to be engaged and held as shown in Fig. 3 of the drawings. Also on the under side of the board 8, I provide a latch rod 24 transversely slidable in suitable guides 25 and having a hook 26 formed on its outer end. This hook is normally held inwardly of the edge of the supporting member 8 by the coil spring 27 as shown in dotted lines in Fig. 6 of the drawings. Thus after the several parts have been folded as above described, the hooked end of the latch 24 is pulled outwardly and said rod then turned so that the hook will embrace the adjacent side portions of the two wire members 10 and 20. As the member 20 connected with the brackets 18 extends upwardly and inwardly at an inclination towards the face of the board 5, the weight of the member 8 is thus supported inwardly of the pivotal connection between said member 20 and the brackets 18.

From the foregoing description, considered in connection with the accompanying drawings the construction, manner of use and several advantages of my improved supporting device will be clearly understood. It will be apparent that an article of this kind is especially advantageous for use in the class or school room, as it may be very easily and quickly attached at any desired point along the length of the blackboard and when not in use can be very closely or compactly folded against the face of the board, or may be wholly detached therefrom when desired. I have herein disclosed an embodiment of my present improvements which I believe to be entirely satisfactory in practical operation, but it will nevertheless be understood that such disclosure is susceptible of embodiment in various other alternative structures, and I accordingly reserve the privilege of resorting to all such legitimate changes therein as may be fairly incorporated within the spirit and scope of the invention as claimed.

I claim:

1. In combination with a fixed structure, a supporting member, clamping devices adapted to be detachably secured to a part of said structure, means adjustably connecting said devices with one end of the supporting member, a bracing member pivotally connected with said clamping devices and also pivotally connected with the supporting member adjacent its opposite end, and an additional bracing element pivotally connected with the supporting member adjacent the first named end thereof and adapted for detachable connection with a part fixed to said structure.

2. In combination with a fixed structure, a supporting member, clamping devices adapted to be detachably engaged with a part of said structure, an adjustable means detachably connected with each of said clamping devices and attached to said member adjacent one end thereof, a bracing member pivotally connected with said clamping devices and means for adjustably pivoting said member to the supporting member adjacent the opposite end thereof, and an additional bracing member pivotally connected with the supporting member adjacent its first named end and adapted for detachable connection to another part of said structure, said adjustable means adapted to be detached from said clamping devices to permit the supporting member to be pivotally

moved relative to said bracing members to a collapsed position closely adjacent to said structure.

3. In combination with a fixed structure, a portable supporting member, and means carried by the supporting member for removably and temporarily attaching said member to said structure including clamping devices adapted to be detachably engaged with a part of said structure, a bracing member pivotally connected with the supporting member adjacent one of its ends and adapted for connection with another part of said structure, and additional means connecting said supporting member with the clamping devices to sustain said member in a substantially horizontal position at right angles to the supporting structure or to permit said member to be folded to a substantially vertical position closely adjacent to the supporting structure.

4. In combination with a fixed structure, a supporting member, and means for attaching said member to said structure including clamping means adapted to be engaged with a part of said structure, a bracing member pivotally connected with the supporting member adjacent one end of the latter and adapted for connection with another part of said structure, and additional means connecting said supporting member with the clamping means to sustain said member in a substantially horizontal position at right angles to the supporting structure, said means including adjustable elements connected with one end of the supporting member and detachably connected to the clamping means, and said members upon disconnection from the clamping means permitting the supporting member to be folded to a position adjacent said fixed structure and sustained by the clamping means in substantially parallel relation to said structure.

5. In combination with a fixed structure, a supporting member, and means for attaching said member to said structure including clamping devices adapted to be engaged with a part of said structure, a bracing member pivotally connected with the supporting member adjacent one end of the latter and adapted for connection with another part of said structure, additional means connecting said supporting member with the clamping devices to sustain said member in a substantially horizontal position at right angles to the supporting structure, said means including adjustable elements connected with one end of the supporting member and detachably pivoted to the clamping devices, and said elements upon disconnection from the clamping devices permitting the supporting member to be folded to a position adjacent said fixed structure in substantially parallel relation thereto, and means on said supporting member for holding the relatively movable parts connected therewith against relative movement in the folded position of said member.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

HUGO NEWMAN.