

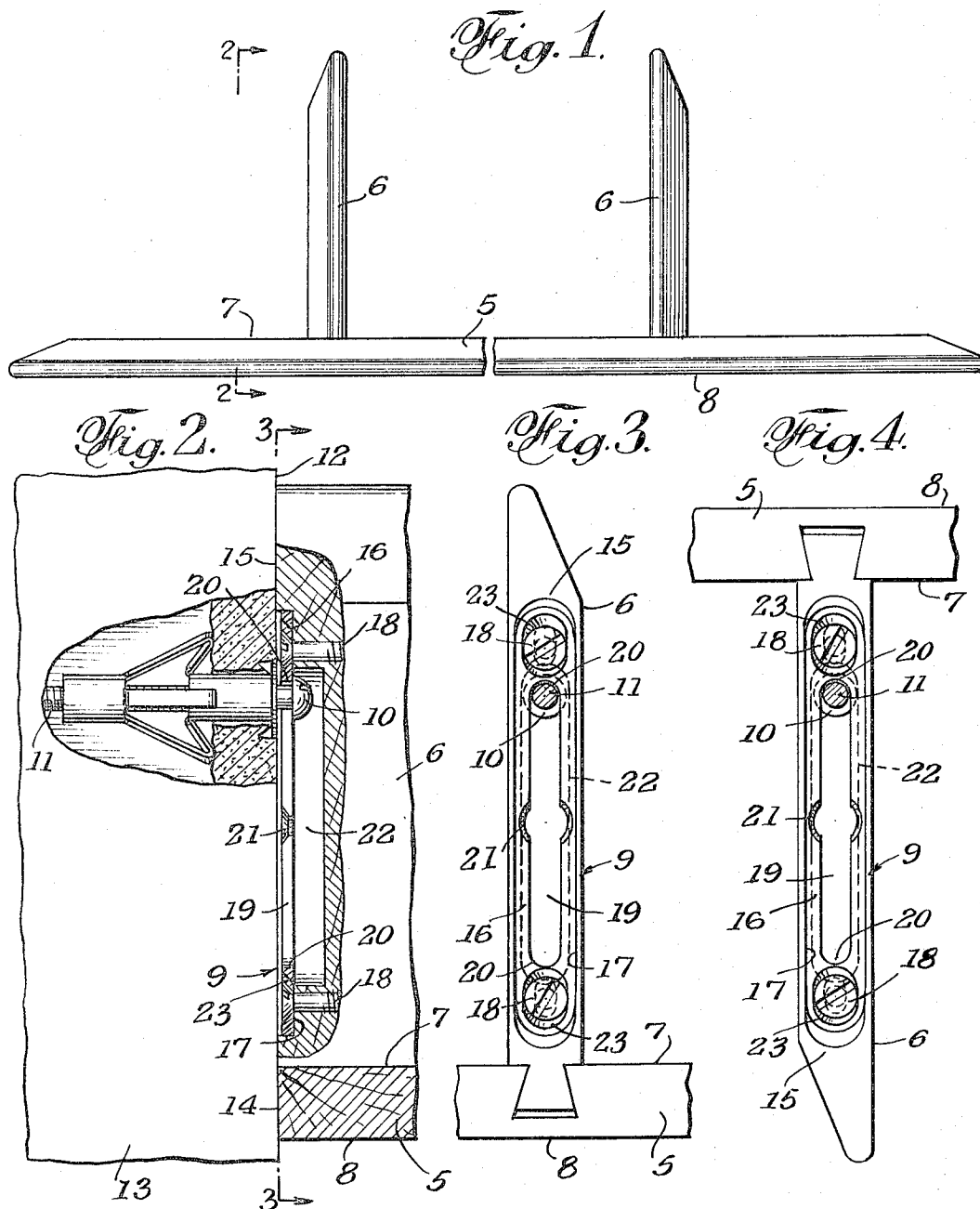
March 28, 1967

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3,311,073

WALL SHELF

Filed April 4, 1966



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WALL SHELF

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Filed Apr. 4, 1966, Ser. No. 539,922

4 Claims. (Cl. 108-149)

This invention relates to a wall shelf and more particularly to means for mounting a shelf on a wall.

An object of this invention is to provide mounting means for a shelf that is installable on a wall, whether of wood, plaster, gypsum, and the like, does not require supporting standards and is flexible in its location since the installation does not necessarily require a wall stud for attachment purposes.

Another object of the invention is to provide a self-mounting means that is capable of reversible application to a support wall so that longitudinally spaced vertical members on the shelf, in the rear edges of which said self-mounting means is provided, may extend vertically upward or downward, as desired, thereby providing the shelf with flexibility of installation.

This invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The above objects are realized in a shelf construction that comprises a support board, at least two longitudinally spaced vertical members affixed to the board with the rear edges thereof flush with the rear edge of the board, and mounting means provided on said rear edges of the vertical members to engage the heads of screws or bolts affixed to a wall and longitudinally spaced according to the spacing of the vertical members and the mounting means thereon. The mounting means on each vertical member comprises a plate recessed into the rear edge of said member, the same being symmetrically provided with an elongated slot which is vertically disposed, therefore perpendicular to the board; both slots, centrally of their length, are enlarged to receive the screw or bolt heads when the shelf is applied with its rear edges against the wall. The shelf is then lowered with the heads caught in the slots, and coming to rest when the screws or bolts, adjacent their heads, engage the upper end of each slot. The vertical members, when extending upward, serve as bookends and, when the shelf is applied with said vertical members extending downward, the same have the appearance of support brackets; leaving the upwardly facing surface of the board clear of obstructions. The vertical members, inward of the plates, are further recessed to provide clearance for the screw or bolt heads.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description and which is based on the accompanying drawing. However, said drawing merely shows, and the following description merely describes, one embodiment of the present invention, which is given by way of illustration or example only.

In the drawing, like reference characters designate similar parts in the several views.

FIG. 1 is a broken front view of a wall shelf according to the present invention, the shelf being shown in one of its two mountable positions.

FIG. 2 is an enlarged, partly broken cross-sectional view, as taken on the plane of line 2-2 of FIG. 1, showing said shelf mounted on a wall.

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FIG. 3 is a cross-sectional view as taken on the line 3-3 of FIG. 2.

FIG. 4 is a similar view showing the shelf reversed.

The present shelf comprises, generally, a horizontal board 5, at least two longitudinally spaced vertical members 6 extending from one surface 7, the opposite surface 8 thereof being unobstructed, and mounting means 9 provided on the rear edges of the members 6, for mounting engagement with the heads 10 of screws or bolts 11 extending from the surface 12 of a wall 13.

The bolts 11 are shown as Moly or expansion bolts, but the same may vary, as desired, or be round-headed screws, provided the heads 10 extend from the wall surface 12 to expose a short length of each bolt 11. The heads 10 are preferably round heads, but may have other symmetrical shapes. Said bolts 11 are applied to be spaced according to the spacing of the members 6 and of the mounting means 9. As can be seen in FIG. 2, the rear edge 14 of the board 5 and the rear edges 15 of the vertical members 6 are flush so the shelf may be placed in a flatwise position against the wall surface 12.

The means 9 of each member 6 is shown as an elongated metal plate 16 that is snugly fitted in a seat 17 and is secured to said member 6 by wood screws 18, or the like. An elongated slot 19 is provided in said plate, the same having rounded ends 20. The slot 19 has a clearance fit with the shank of the bolt 11 and is smaller than the head 10 of said bolt. Intermediate the slot ends 20, preferably midway, the slot is formed with an enlargement 21 slightly larger than said bolt head and, therefore, allowing said head to be introduced into a routed space 22 in the member 6 inward of the seat 17. The enlargement 21 is preferably chamfered, so the head is so introduced with easy facility.

After the bolts 11 have been fitted into the wall 13 and the heads 10 thereof set inward to space them from the wall surface 12 sufficiently to enter the space 22 when the flush edges 14 and 15 are placed flat against the wall surface 16 with the head 10 passing through the enlargement 21, the shelf is allowed to drop until stopped by the bolt 11 immediately behind the head. The lower portions of the edges 14 and 15 bear against said wall surface, providing a stable position of the shelf and complete concealment of the mounting means 9 and of the bolt heads 10.

The mentioned reversible positions of the shelf have the same relationship with the bolt 10, except said heads engage one end of the slot 19 when the members 6 extend upwardly, and the opposite end when said members extend downwardly. Removal of the shelf only requires that the same be lifted so the heads 10 may be released through the slot enlargements 21.

The holes 23 in the ends of the plate 16 are preferably elongated so the plate may be mounted on the members 6, by means of the screws 18, in horizontal alignment with the mounting bolt 11. The seat 17 is elongated, as shown, so that the shelf may be leveled by shifting the plate 16, as required, before the screws 18 are tightened.

While the foregoing has illustrated and described what is now contemplated to be the best mode of carrying out the invention, the construction is, of course, subject to modification without departing from the spirit and scope of the invention. Therefore, it is not desired to restrict the invention to the particular form of construction illustrated and described, but to cover all modifications that may fall within the scope of the appended claims.

Having thus described this invention, what is claimed and desired to be secured by Letters Patent is:

1. A shelf for mounting on a wall, a surface of which is provided with two horizontally aligned, transversely

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spaced bolts having heads that project from said surface, said shelf comprising:

- (a) an elongated horizontal board having a rear edge,
- (b) two vertical members affixed and perpendicular to one surface of said board and having rear edges substantially flush with the rear edge of the horizontal board and having underflush seats,
- (c) a vertically disposed plate set into the seat in the rear edge of each vertical member inward of said edge,
- (d) each plate having an elongated vertical slot therein with an enlargement in said slot intermediate the ends thereof,
- (e) said slots being spaced according to the spacing of the bolts, whereby the bolt heads project into the slot enlargement and behind the plate when the same are brought into register, and the bolts, upon lowering of the shelf, engage the upper end of the plate slot to hang the shelf against said wall surface.

2. A shelf according to claim 1 in which the slot opening is disposed midway between the slot ends.

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3. A shelf according to claim 1 in which the slot enlargement is provided with an outer chamfer.

4. A shelf according to claim 1 in which the vertical members, inwardly of the plates set in the rear edges thereof, are recessed to provide clearance accommodation for the bolt heads.

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