July 22, 1958 W. E. CHALMERS ET AL 2,844,261

STORAGE SHELVING CONSTRUCTION

Filed Sept. 25, 1956

Fig. 1.

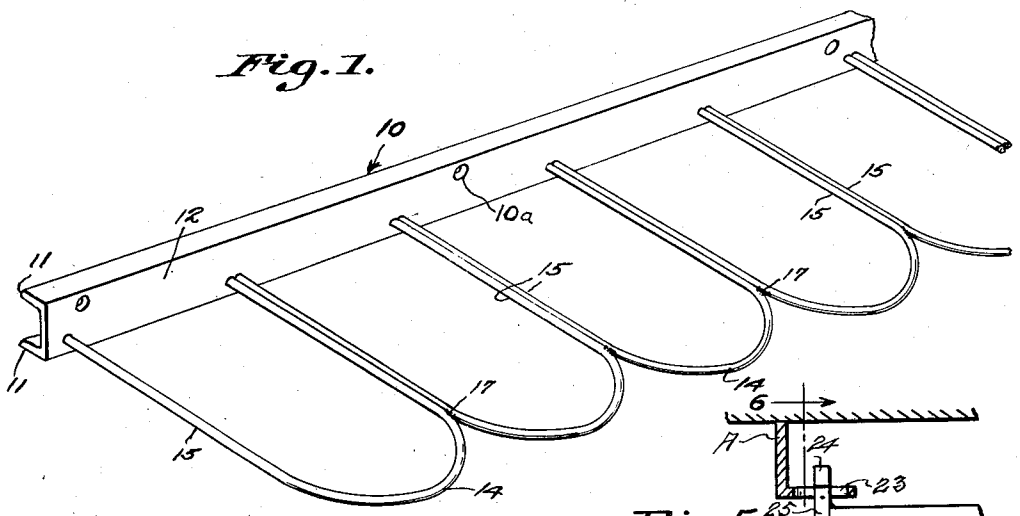


Fig. 5.

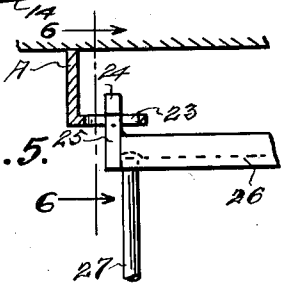


Fig. 2.

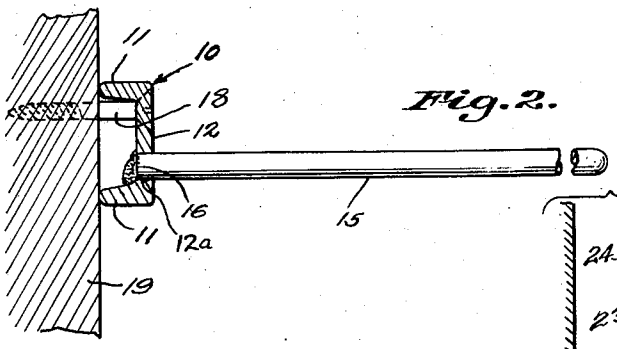


Fig. 6.

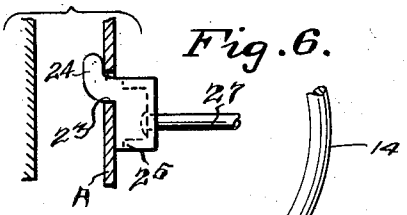


Fig. 3.

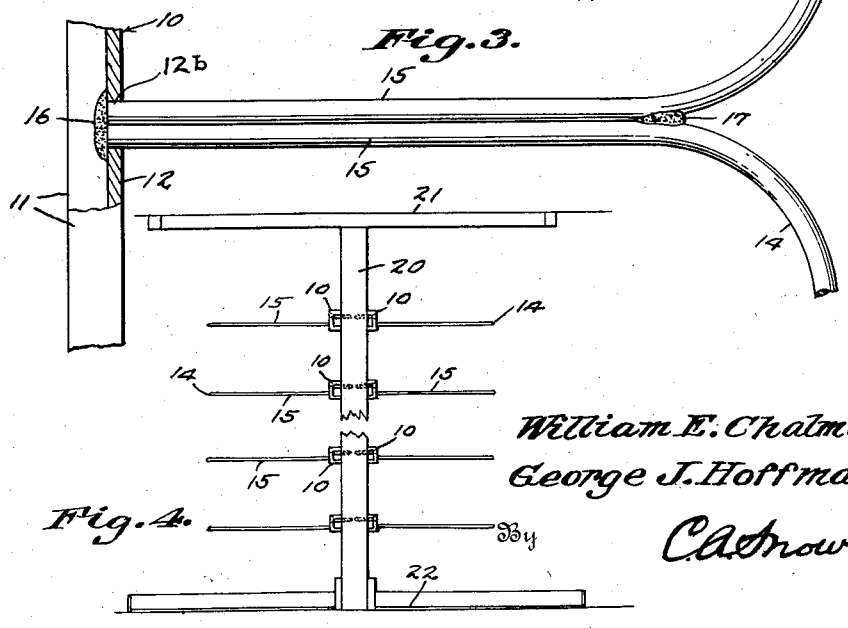


Fig. 4.

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STORAGE SHELVING CONSTRUCTION

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2 Claims. (Cl. 211—90)

This invention relates to storage shelving construction and has for its object the provision of a construction that is easily and quickly erected, and that is strong and sturdy in use. Another object of the invention is the production of shelving in a comparatively long strip, length of which may be cut therefrom to conform to the space to be fitted with shelves. Another object of the invention is the construction of a device to provide a relatively large storage space in proportion to the material used in the construction thereof. Still another object of the invention is the provision of shelving having a bar with a supporting surface secured to the bar, the shelving requiring no vertical supporting members at the outer side of the shelving.

From the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combination of parts, hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the drawings:

Figure 1 is a perspective view of a portion of shelving constructed according to the precept of the present invention.

Figure 2 is a transverse sectional view of the structure.

Figure 3 is a plan view of a portion of the device with parts in section and parts broken away.

Figure 4 is a view showing another method of erecting the device.

Figure 5 is a fragmental plan view of a modified form of shelf supporting means.

Figure 6 is a sectional view taken on line 6—6 of Figure 5.

Referring to the drawings by characters of reference, the numeral **10** designates a channel bar of appropriate dimensions comprising legs **11** and a web **12** connecting the legs **11**. A series of loops **14** are arranged in horizontal spaced relation along the bar **10**, each loop having a leg **15** extending from opposite ends of the arcuate loop **14**. The legs **15** extend in approximately parallel relation to each other, inwardly to the web **12** of the bar **10**. Holes **12***a* and **12***b* are provided in the web for insertion of a leg from each adjacent loop, and the said legs are securely welded together and to the bar on the inner surface of the bar at **16**. To further strengthen the structure and provide rigidity throughout the length thereof, the legs **15**, near their outer ends, are welded together at **17** thus rendering the entire length of shelving a uniform supporting surface.

Installation of the shelving is simple and quickly accomplished requiring only the driving of screws **18** or other fastening means through holes **10***a* in the bar **10** into the wall **19** or studding thereof as shown in the drawing. In Figure 4 is shown a form of double tiers of shelving which requires only the erection of a series of studs or uprights **20** between the ceiling **21** and the

floor **22**. On opposite faces of the studs **20** are secured, back to back, the bars **10** in the manner hereinbefore described. In this construction, two tiers of shelves are provided within much less transverse space than formerly required for two tiers of shelves.

In Figures 5 and 6 of the drawing I have illustrated a modified form of shelving installation means which embodies the use of spaced parallel angle bars A that may be attached to a wall or beam in any desirable manner, the angle bars having transversely elongated vertically spaced openings **23** formed therein for the reception of the hooks **24** which extend from plates **25** that are welded to the ends of the channel bars **26** to which the legs **27** of the loops which provide the shelves, are connected, as better shown by Figure 1 of the drawing.

With this form of shelving support, it will be obvious that the bars **26** that support the shelving loops **14** may be readily and easily removed and replaced by merely tilting the bars upwardly and inserting the hooks **24** in said openings and then allowing the bars to drop to the position as shown by Figure 6. This change in the shelving may be made to meet various requirements of use.

It is to be understood that the loops **14**, although shown in the drawing as being arcuate, may be of any polygonal shape desired. Of prime importance is the increase in shelving space provided by the structure above described. Space is saved longitudinally by reason of the fact that vertical supporting columns at the front of the shelving are dispensed with. Greater saving in space is effected in the vertical dimension than in the longitudinal because of the limited thickness of the material of which the supporting shelf is constructed. It has been found in actual practice that 25% more space is provided with the herein described structure than with the wooden shelving heretofore used.

Having thus described the invention, what is claimed is:

1. In a shelving structure, a longitudinal bar having a plurality of aligned openings therein, a series of horizontal U-shaped loops, legs extending from opposite ends of said loops, the adjacent legs of adjacent loops extending in parallel proximity to each other, the ends of said legs extending through said openings in said bar and welded to the bar, the legs and loops projecting laterally from the bar at an approximately right angle thereto forming a supporting shelf, and welding securing the outer end of each leg of each loop to the adjacent leg of an adjacent loop.

2. Shelving comprising spaced parallel vertical uprights having transversely elongated openings, a longitudinal shelf bar, horizontal U-shaped shelf members extending laterally from said shelf bar providing a supporting shelf, and hooks extending from the ends of said shelf bar opposite the shelf members and hooked into said elongated openings, removably securing said horizontal shelf bar to said vertical bars.

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