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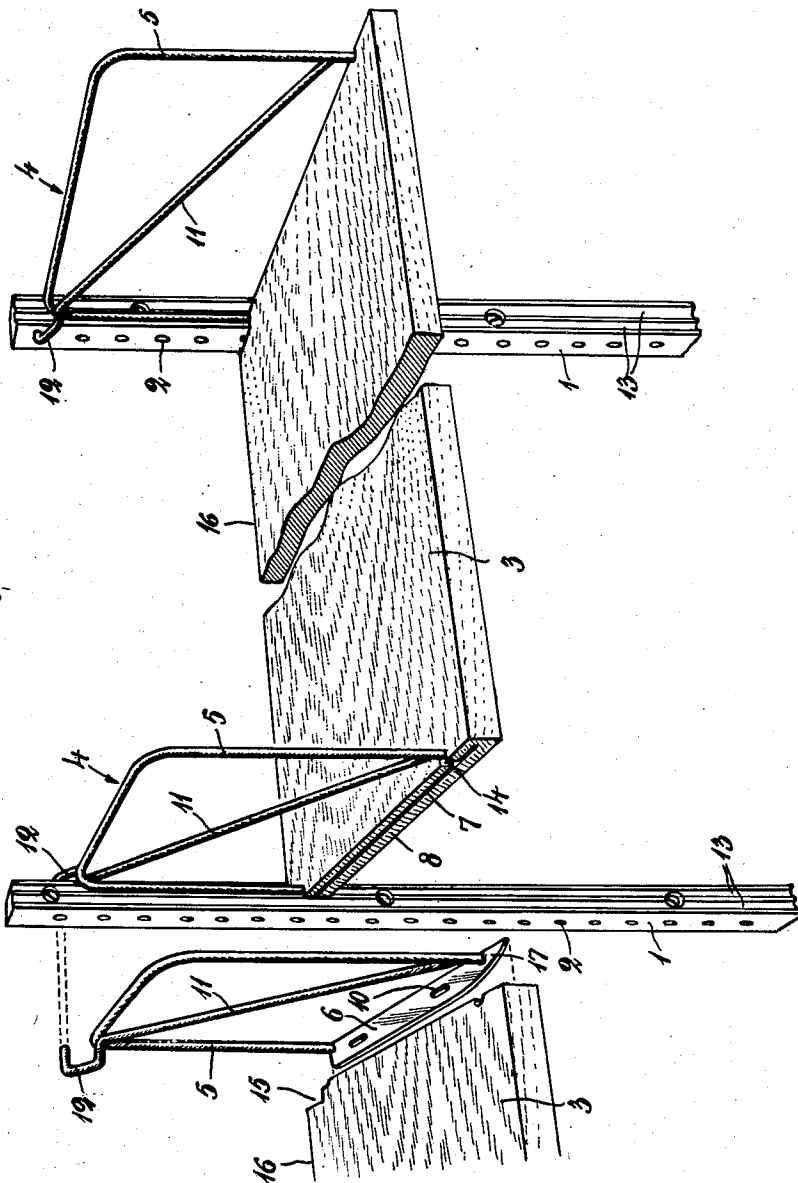
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WALL BOOKSTACKS

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2 Sheets-Sheet 1

Fig. 1.



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Fig. 2.

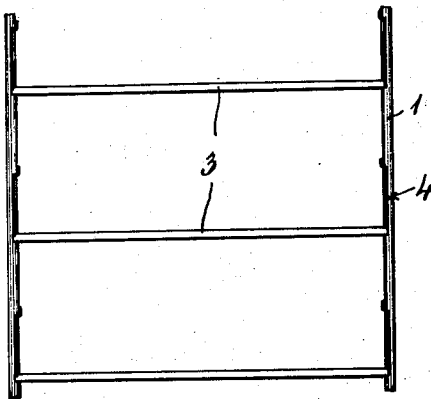


Fig. 3.

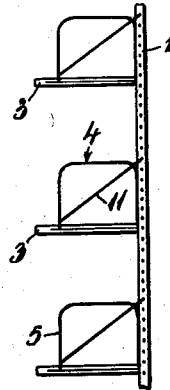


Fig. 4.

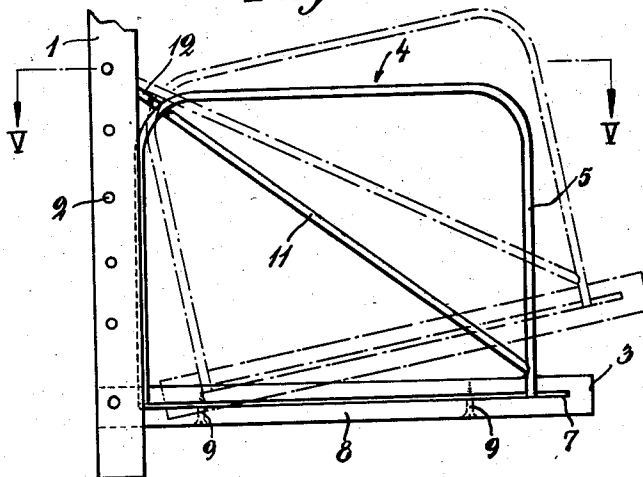
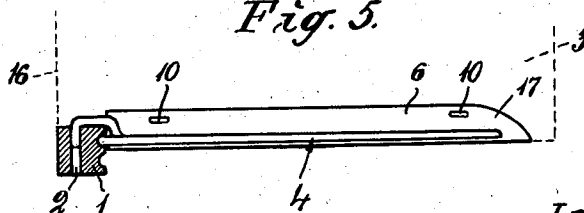


Fig. 5.



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WALL BOOKSTACKS

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Claims priority, application Sweden February 16, 1955

2 Claims. (Cl. 211-90)

This invention relates to bookcases and more particularly to wall bookstacks of the kind in which, on one hand, each shelf is carried at its ends by lateral supports which, by means of hook elements, are hooked onto bars secured to the wall and having transverse holes engaged by the hook elements, and, on the other hand, in the supported position of the shelf, the rear edges of the lateral supports are received in grooves extending longitudinally of the front surfaces of said bars.

According to prior constructions of wall bookstacks of the kind referred to, the lateral supports are in the form of triangularly shaped frames of metal wire or the like, the hook elements being in the form of separate, detachable double-hooks for carrying interengagement with the lateral supports. This arrangement however, has been found to involve a disadvantage in that, for instance due to shocks exerted against the underside of the shelf, the lateral supports are liable to get disengaged from the hook elements. In addition, the triangular shape of the lateral supports offers an unsatisfactory support for books and the like. Also, the strength of this construction has frequently proved to be insufficient due to the fact that the lateral supports were only connected with the shelf by hooking the bent-off end portions of the two legs of the triangularly shaped supporting frame into two corresponding bores made in the end edges of the shelf.

The present invention has for one of its objects to remedy the first-mentioned one of said disadvantages, and this is accomplished by the feature, that each lateral support is rigidly connected, in the region of its upper and rear end, with a rearwardly projecting hook which is adapted to enable the lateral supports to be released from the wall bars only after the shelf, and thus its lateral supports, having been swung upwardly about the hooks until the rear edges of the lateral supports have become completely disengaged from the grooves made in the front surfaces of the wall bars.

Since, when the shelf is mounted in place, the horizontal distance between the rear edge of each lateral support and the bore of the corresponding wall bar is less than the distance between this bore and the front edge of the wall bar, it will be necessary, in order to enable the shelves to be mounted on, and removed from, the wall bars, that the whole length of the rear edges of the lateral supports received in the longitudinal grooves of the wall bars is situated at a lower level than the hooks engaged into the bores of the wall bars, and this may be conveniently accomplished by curving the rear upper corners of the lateral supports, or, preferably, according to a further object of the invention, by arranging the hook so as to project rearwardly and upwardly at an angle. It would be possible, of course, to attain the same result by a combination of these two features. The insertion of the hooks of the lateral supports into the transverse holes of the wall bars will thus be enabled by initially holding the shelf swung out from the wall in an inclined position. The lowering of the shelf into

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the horizontal position is enabled by the grooves made in the wall bars, the rear edges of the lateral supports thus coming to rest against the bottom surfaces of these grooves. This results in the advantage already mentioned consisting in that the hooks will be prevented from getting disengaged from the wall bars until the lateral supports will have been swung a sufficient amount about the hooks completely to disengage the rear edges of the lateral supports from the longitudinal grooves made in the wall bars to stabilize the shelves endwise.

In accordance with the present invention, the lateral supports may be given any desired shape making them most suitable to perform their supporting function. According to one, preferred, embodiment of the invention, each lateral support is provided at its base with a strip-metal element adapted to be engaged into a corresponding slot cut in the end edge surface of the shelf by, for instance, milling or sawing. This enables the results that, firstly, where the shelf is made of wood, the same will be stiffened and strengthened and, secondly, the load will be distributed over the whole width of the shelf.

Other features of the invention will be set forth more in detail in conjunction with the following description of a preferred embodiment thereof as illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view, partly broken away, and illustrating both a shelf mounted in place and, to one side thereof, a second shelf about to be mounted, the latter being shown separated from its lateral support.

Fig. 2 is a front elevation illustrating a stack comprising three shelves, and

Fig. 3 illustrates the same stack as seen from one side thereof.

Fig. 4 is an enlarged side elevation illustrating both, in full, a shelf mounted in its position of use, and, in broken lines, a shelf in the course of the mounting operation.

Fig. 5 is a horizontal section taken along the line V—V in Fig. 4.

Referring now to the drawings more specifically, numeral 1 designates the ribs or bars which are fixed to the wall such as by screws and having each a row of transverse bores 2. Numeral 3 designates the shelves proper, and numeral 4 the lateral supports therefor. In the embodiment illustrated in the drawings, the lateral supports 4, as will be best seen from Figs. 1, 4 and 5, consist of an invertedly U-shaped wire 5 of a rigid material, such as, for instance, steel or brass wire or rod. This wire bent into an inverted U-shape is rigidly connected at the ends of its legs, by, for instance, welding or riveting, to a horizontally disposed strip-metal element 6 which is intended to be introduced into a corresponding slot 7 cut into the end 8 of the shelf 3, where, if desired, it may be secured additionally by screws 9 or the like for which purpose the strip elements 6 may be provided with at least one elongated slot 10 in order to allow for an unobstructed relative movement of the shelf due to variations in the humidity of the air.

Extending diagonally or substantially diagonally relative to the invertedly U-shaped lateral support 4 bent from metal wire or rod is an additional wire or rod 11 secured to said support 4 by welding or in any suitable other manner and projecting rearwardly beyond the rear, possible arcuate upper corner of the invertedly U-shaped support 4 said additional wire or rod being formed into a hook 12 which is adapted to be hooked into any desired transverse bore 2 in a wall bar 1. The bar 1 is provided in its front surface with one or two longitudinally extending grooves 13 into one of which the rear or inner edge of the invertedly U-shaped support 4 is engageable to thereby provide a satisfactory endwise location of the

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shelf. In the front region of the end margins of the shelf 3 recesses 14 may be made for accommodating the frontmost leg 5 of the invertedly U-shaped support 4 whereas the rear corners of the shelf 3 are recessed sufficiently, at 15, to enable the rear edge 16 of the shelf to fit closely, or substantially closely, to the wall surface.

Although, in the previous description, wires 5 and 11 have been referred to, this should not be understood to restrict the invention to the use of wires of circular cross-section since the invention, to the same effect, may be realized utilizing wires or rods of any desired cross-sectional shape. If desired, the lateral supports could even be in the form of whole plates.

In order to make the strip-metal element 6 invisible when the shelf 3 is viewed from front, this element may be made somewhat shorter than the width of the shelf 3, and if the slot 7 is cut by means of a circular saw then, as illustrated in Figs. 1 and 5, the extreme end portion 17 of the element could suitably be curved according to the radius of curvature of the saw blade.

What is claimed as new and desired to be secured by Letters Patent is:

1. In a wall bookstack comprising a set of shelves, each shelf including a shelf proper and means for supporting the same including a lateral support, means for detachably connecting the same to the shelf proper, said lateral support consisting of an inverted U-shaped frame at each end of each shelf proper of rod-like material, spaced vertical carrier bars adapted for attachment to a wall, a row of vertically spaced transverse apertures in each carrier bar, said means for supporting said shelf proper further including a hook element rigidly mounted on each lateral support and interconnecting the same,

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said hook element being adapted to engage one of said transverse apertures and forming a pivot axis for said lateral support, said carrier bars each having at least one longitudinal groove, each carrier bar having at least one face through which said aperture extends and another face at right angles thereto on which said groove extends, said groove being adapted to support one of the lateral supports of said U-shaped frame when each of said shelves is in its position of use, said hook element extending in a diagonal direction from one lateral support which may be swung about the pivot axis of said hook element until the said lateral support is disengaged from said shelf proper.

2. The structure of claim 1 wherein the said means for detachably connecting the lateral support to its shelf includes a slot extending longitudinally in the end of the shelf proper, and a strip metal member adapted to be engaged in said slot, said strip metal member connecting the free ends of the U-shaped frame of said lateral support.

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