

Aug. 22, 1961

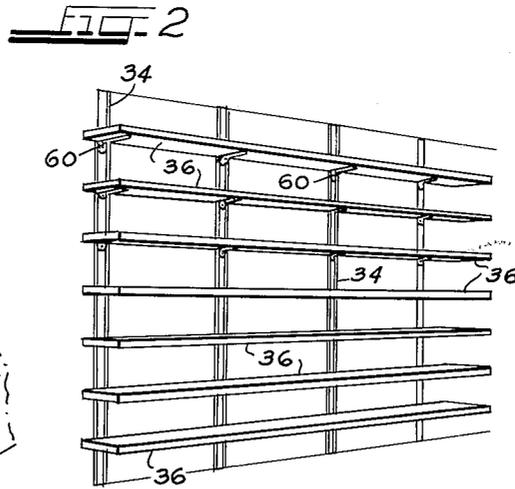
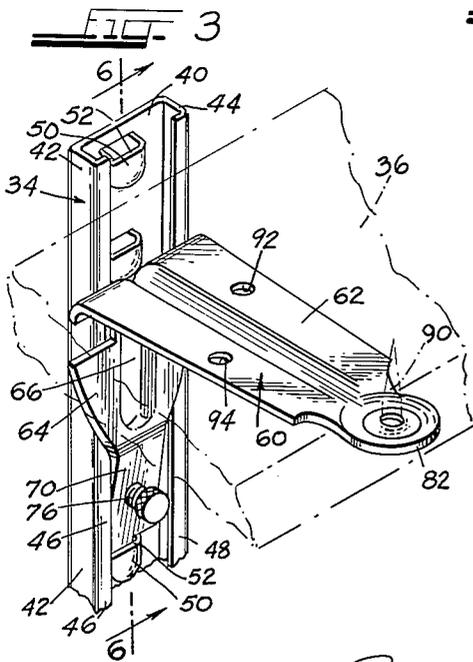
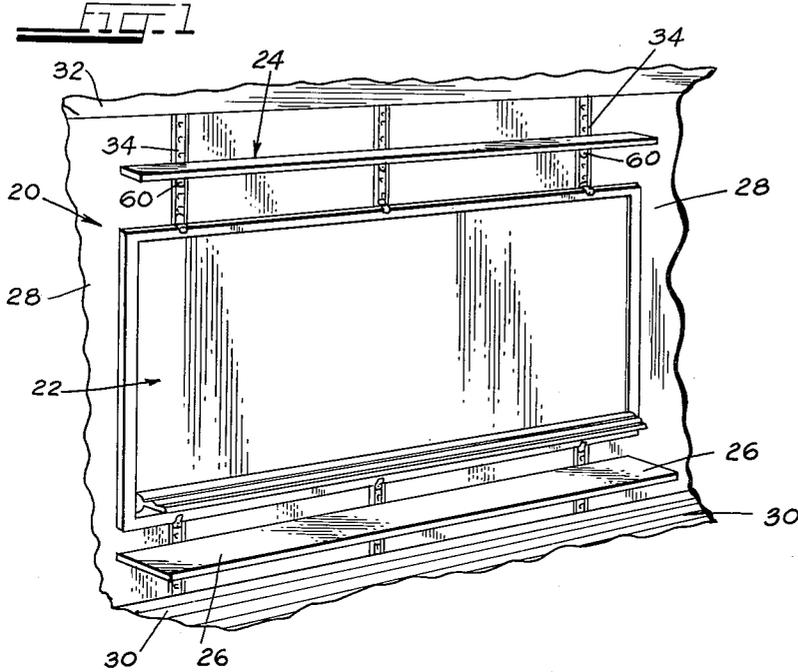
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2,997,269

ADJUSTABLE SHELVING SYSTEM

Filed Dec. 15, 1958

3 Sheets-Sheet 1



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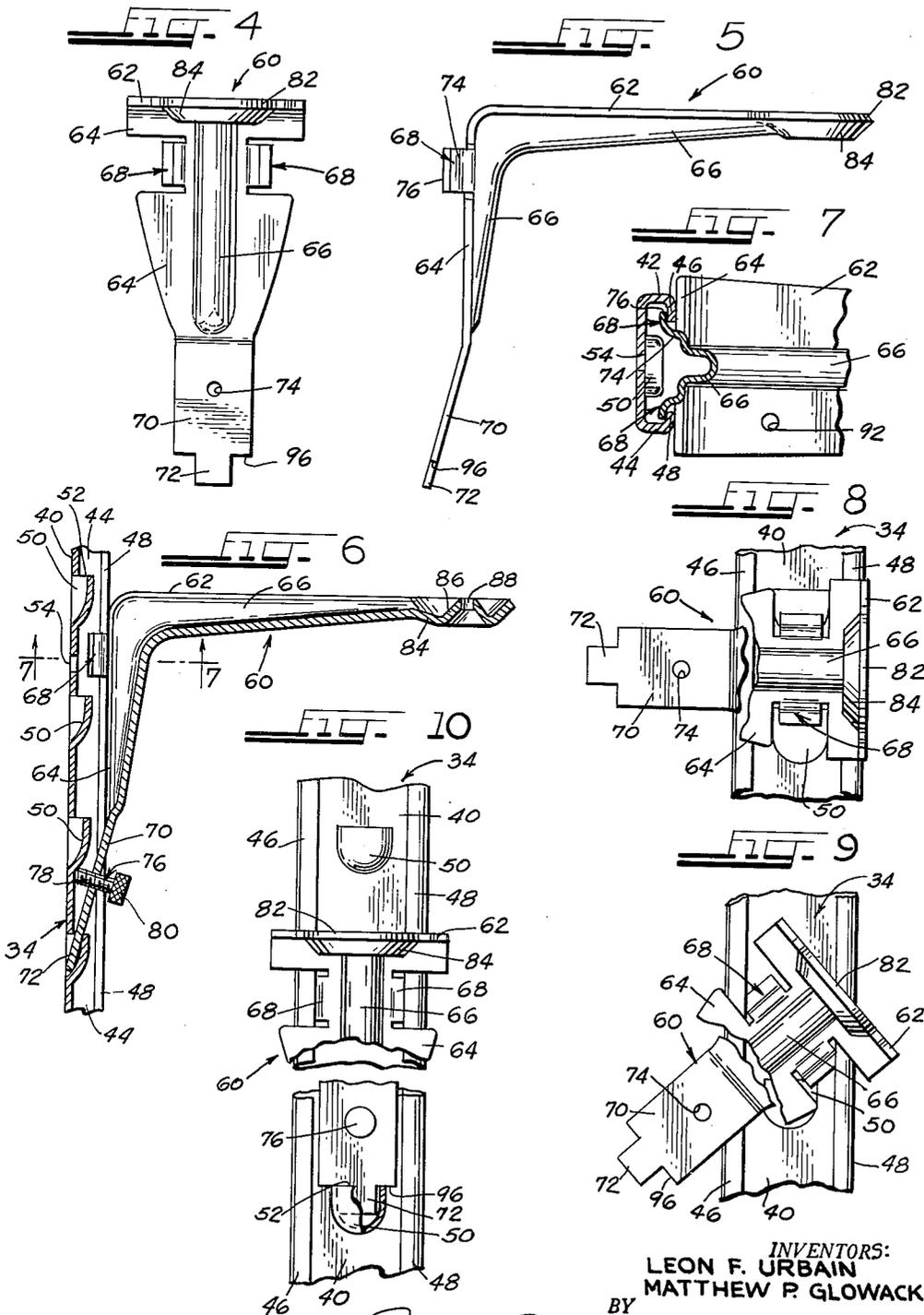
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3 Sheets-Sheet 2



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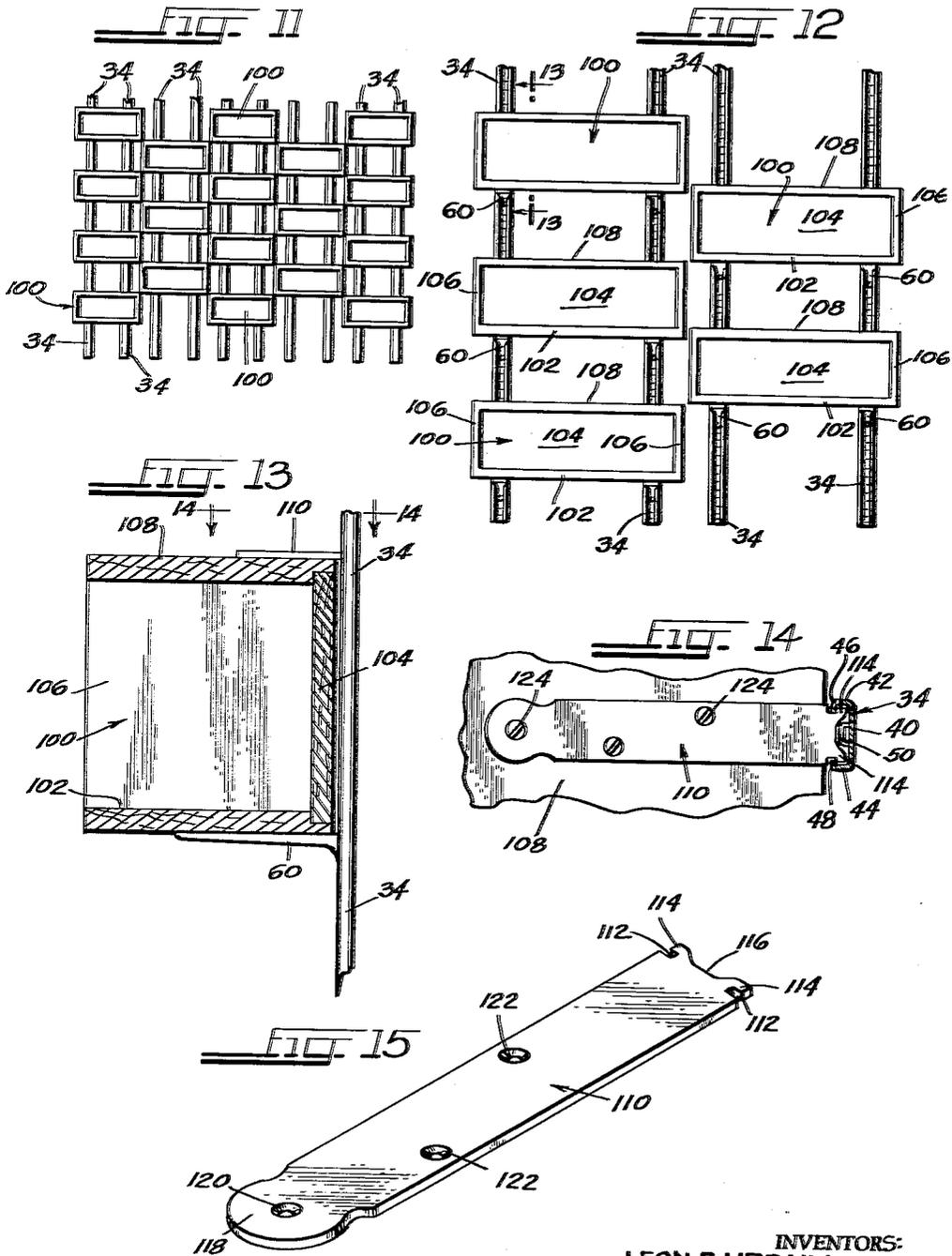
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3 Sheets-Sheet 3



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2,997,269

**ADJUSTABLE SHELVING SYSTEM**

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5 Claims. (Cl. 248—245)

This invention relates to adjustable shelving and particularly to mounting systems and parts therefor useful in constructing adjustable shelving.

There is a substantial demand today for shelving of the adjustable type in commercial applications, home use, and institutional applications such as schools and the like. Often the shelving installation in addition to being adjustable may substantially fill the entire vertical extent of the room in which it is located whereby limiting the shelving systems which can be utilized to those in which access to the top or the bottom of the mounting system is not required.

There is disclosed in our co-pending application entitled Blackboard Setting System, Serial No. 655,723 filed April 29, 1957, a system including hardware for adjustably mounting blackboards. The system includes a channel having inturned flanges on the sides thereof extending longitudinally therealong and a plurality of equidistantly spaced pockets adjustably to receive supports for a chalkboard. The support channels may preferably extend the entire height of the room whereby to prevent access to the ends of the channels so that the supports must be of a type which can be mounted on the channel at any point intermediate the ends thereof. It is desirable in many chalkboard installations of the type described to provide in addition to the chalkboard and associated tackboard a shelf for storing supplies, plants, decorations and the like. It further is desirable in certain instances to provide an installation consisting entirely of shelving but utilizing the improved channel described above.

Accordingly, it is an important object of the present invention to provide an improved adjustable shelving and particularly an improved shelving system including support structures for adjustably positioning a shelf with respect to the floor or adjacent structures.

Another object of the invention is to provide an improved shelf structure of the type set forth which is arranged so that the height of individual shelves can be quickly adjusted and in which the shelves when once adjusted are firmly mounted and cannot be inadvertently shifted or removed from the support therefor.

Yet another object of the invention is to provide an adjustable shelving system including elongated channels having inturned flanges with pockets disposed on the channels to receive shelf supports, the shelf supports being mountable on the channel at any point along the length thereof without access to the ends of the channel and being adjustable therealong as desired.

Still another object of the invention is to provide improved shelf supports for use in the adjustable shelving system set forth above.

These and other objects and advantages of the invention will be better understood from the following description when taken in conjunction with the accompanying drawings. In the drawings wherein like reference numerals have been utilized to designate like parts throughout:

FIGURE 1 is a perspective view illustrating one embodiment of the adjustable shelving system of the present invention, the system also illustrating a chalkboard mounted thereon;

FIG. 2 is a perspective view of a second arrangement utilizing the adjustable shelving system of the present invention, the shelves being illustrated as occupying substantially the entire useful volume;

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FIG. 3 is an enlarged fragmentary view illustrating a shelf support mounted upon a channel forming a part of the adjustable shelving system of the present invention, the parts being shown in perspective and with a shelf thereon in dashed lines;

FIG. 4 is a front elevational view of the shelf support forming a part of the adjustable shelving system;

FIG. 5 is a side elevational view of the shelf support of FIG. 4;

FIG. 6 is a view in vertical section through the assembly of FIG. 3 substantially as seen in the direction of the arrows along the line 6—6 thereof;

FIG. 7 is a view in horizontal section through the assembly of FIG. 6 as seen in the direction of the arrows along the line 7—7 thereof;

FIGS. 8—10 diagrammatically illustrate the manner in which the shelf support of the present invention can be mounted upon the associated support channel at any point along the length thereof, certain of the parts being broken away for clarity of illustration;

FIG. 11 is a front elevational view of multiple box shelving embodying the present invention;

FIG. 12 is an enlarged detailed view in front elevation of a portion of the box shelving of FIG. 11;

FIG. 13 is a view on an enlarged scale in vertical section through one of the box shelves of FIG. 12 substantially as seen in the direction of the arrows along the line 13—13 of FIG. 12;

FIG. 14 is a view in horizontal section on an enlarged scale substantially as seen in the direction of the arrows along the line 14—14 of FIG. 13 and illustrating particularly the top bracket used in mounting the box shelving; and

FIG. 15 is a further enlarged perspective view of the top bracket used in mounting box shelving according to the present invention.

Referring first to FIG. 1 of the drawings, there is shown a mounting system generally designated by the numeral 20 and including a chalkboard 22, an upper narrow shelf 24 and a lower relatively wider shelf 26 all mounted upon suitable supports. The system 20 is shown disposed along one side wall 28 of a room having an associated floor 30 and a ceiling 32. A plurality of channels 34 is provided, the channels extending the height of the wall 28, i.e., substantially from the floor 30 to the ceiling 32, three of the channels 34 being shown in parallel alignment for support of the chalkboard 22 and the shelves 24 and 26. As will be described more fully hereinafter, the chalkboard 22 and each of the shelves 24 and 26 is adjustable to substantially any position vertically along the channels 34.

A different use of the adjustable shelving system of the present invention is illustrated in FIG. 2 of the drawings wherein four of the channels 34 have been provided which may extend the entire height of an associated storage space. Mounted upon the channels is a plurality of shelves 36, the shelves 36 being shown in general parallelism with each other. Each of the shelves 36 is adjustable vertically along the channels 34 whereby either to provide equal spaces between adjacent shelves or to provide any other arrangement of spacing between adjacent shelves which may be desired.

Referring now to FIG. 3 of the drawings, the construction of a channel 34 will be described in detail. The channel 34 includes a main wall or web 40 which may be for example 8 feet in length and approximately one inch in width. Formed on the longitudinally extending edges of the wall 40 are parallel flanges 42 and 44 which extend forwardly from the wall 40 in the mounted position and are disposed substantially at right angles therewith. The forwardly disposed edges of the flanges 42 and 44 have formed thereon and extending

the length thereof inwardly directed retaining flanges 46 and 48, respectively. The inwardly directed and confronting edges of the retaining flanges 46 and 48 may be spaced apart, for example, a distance of approximately  $\frac{3}{4}$  of an inch. The flanges 46 and 48 together with the flanges 42 and 44 and the web 40 define a pair of spaced apart grooves or raceways which receive and provide a track for the flanges on the shelf support which will be described more fully hereinafter.

Formed from the body of the wall 40 and extending toward the retaining flanges 46 and 48 is a plurality of pockets or sockets 50. The outline of a pocket 50 on the wall 40 is substantially U-shaped with the upper edge 52 of the pocket spaced from the adjacent surface of the wall 40 and providing a substantially rectangular opening to receive a member therethrough. Preferably the pockets 50 are centered in a horizontal position upon the wall 40 as viewed in FIG. 10 of the drawings and are spaced therealong at regular intervals with the upper edges 52 of adjacent pockets spaced apart, for example, one inch. Such a structure will permit variation in height of associated shelves in increments of one inch.

A plurality of apertures 54 is provided along the length of the wall 40 to receive fasteners therethrough whereby to mount the channels 34 upon an associated support wall such as the wall 28. If a relatively short shelf is to be mounted, only two of the channels 34 may be provided whereby to permit the mounting of one or more shelves therealong at selected adjustable heights. It has been found that two channels 34 may be used when the shelves to be supported thereby are to be only two to six feet in length. However, if the shelves to be supported are to be six to eight feet in length, it has been found advisable to use three of the channels 34, and in mounting shelves having lengths of eight feet and over, four or more channels 34 may be used. Care is taken to insure that the channels 34 are positioned with the longitudinally extending axes thereof disposed vertically and with the upper edges 52 of laterally adjacent corresponding pockets 50 lying on a common horizontal line.

In mounting the chalkboard 22 upon the channels 34 illustrated in FIGURE 1 of the drawings, the brackets and clips illustrated in our co-pending application, Serial No. 655,723 referred to above may be utilized. The chalkboard 22 when so mounted is readily adjustable to any desired height vertically along the channels 34 and, when positioned at the desired height, will be firmly held there until it is desired to change the height of the chalkboard again. It has been found most convenient in many installations to utilize the shelves 24 and 26 in conjunction with the chalkboard 22. The shelf 24 positioned above the chalkboard 22 may be a relatively narrow shelf as compared to the shelf 26 and is particularly useful for supporting various types of small displays, models, flowers, etc. The relatively wider shelf 26 positioned below the chalkboard 22 is likewise adjustable as to its position with respect to the floor 30 and the chalkboard 22 and has been found to be very convenient for holding books and other articles normally used in the classroom.

The shelves 36 illustrated in the assembly of FIG. 2 in the drawings do not in any way differ from the shelves 24 and 26 described above although the shelves 36 have been illustrated as being narrow and therefore more nearly like the shelves 24. The structure for mounting and adjustably supporting the shelves 24, 26 and 36 is substantially identical and, accordingly, only one support system therefor will be described with particular reference to FIGS. 3-10 of the drawings.

In FIG. 3 of the drawings, one of the channels 34 has been shown as supporting thereon a shelf support generally designated by the numeral 60 and including a structure for mounting upon the channels 34 and another structure for supporting an associated shelf such as the shelf 36 which has been shown in dashed or phantom

lines. The bracket 60 includes two perpendicularly disposed plates 62 and 64 which are formed integral with each other and at the point of joinder having a width substantially greater than the width of the channel 40. A substantial reinforcing rib 66 extends from a point spaced slightly from the outer end of the plate 62 down around the point of joinder of the plates 62 and 64 and substantially to the end of the plate 64. The rib 66 is sufficiently heavy that it renders the bracket 60 substantially rigid although it is formed of sheet metal.

In order to mount the bracket 60 upon the channel 34, the bracket 60 is provided with a pair of laterally extending ears 68 adjacent to the junction of the plates 62 and 64 and an inwardly directed flange 70 terminating in a tongue 72 adapted to fit within one of the pockets 50. Referring to FIGURES 4, 5 and 7 of the drawings, it will be seen that the ears 68 are struck from the plate 64 and include a connecting portion 74 extending rearwardly from the plate 64 with the ends 76 of the ears disposed away from the adjacent side of the plate 64 a distance such as to receive one of the channel flanges 46 or 48 therebetween. Furthermore, the distance between the outer surfaces of the connecting portions 74 is less than the distance between the confronting edges of the flanges 46 and 48 and the total distance between the outer ends of the ears 68 is less than the distance between the inner surfaces of the flanges 42 and 44. In order to insure that the ears 68 can be engaged with the channel 34 at any point therealong, the width or the vertical extent of the ears 68 as viewed in FIGS. 4, 5 and 6 of the drawings is less than the distance between the confronting edges of the flanges 46 and 48 whereby the ears 68 can be placed therebetween and moved toward the wall 40 as shown in FIG. 8 after which the entire bracket 60 can be moved through an angle of 90° as is diagrammatically illustrated in FIG. 9 so that the bracket assumes the position illustrated in FIG. 10 wherein the ends of the ears 68 lie behind the channel flanges 46 and 48 which are retained between the ears 68 and the bracket plate 64.

The flange 70 is substantially rectangular in plan view and has a width less than the distance between the confronting edges of the channel flanges 46 and 48 whereby it can be moved therebetween to a position such as that illustrated in FIGS. 3 and 10 of the drawings. Preferably the length of the flange 70 is greater than the distance between adjacent pockets 50. The end of the flange 70 opposite that attached to the plate 64 is provided with a tongue 72, the tongue 72 being disposed substantially centrally of the flange 70 and having a width such that the tongue can be received within one of the channel pockets 50. Since the pockets 50 are disposed behind the forward edges of the flanges 46 and 48 against which rests the bracket plate 64, it is necessary that the plane of the flange 70 be disposed at an angle of approximately 15° with respect to the plane of the bracket plate 64 and in a direction away from the plate 62 so as to permit the tongue 72 to be disposed within a pocket 50 while the plate 64 rests firmly against the forward surfaces of the channel flanges 46 and 48.

Means is provided to hold the tongue 72 in engagement with the selected pocket 50 whereby firmly to fix the bracket 60 in a vertical direction with respect to the channel 34. To this end the flange 70 is provided with an aperture 74 therein (see FIGS. 4, 8 and 9) which is adapted to receive a screw 76 including a threaded shank 78 and a knurled head 80. Preferably the aperture 74 is suitably threaded to receive the threaded shank 78 therethrough and the shank 78 bears against the underside of a pocket 50 disposed above the pocket receiving the tongue 72 therein. As a result the rear surface of the plate 64 is held flush against and parallel to the forward faces of the channel flanges 46 and 48. Forward movement of the upper end of the bracket 60 is positively prevented by the ears 68 which engage behind the

rear surfaces of the channel flanges 46 and 48. The lower end of the bracket 60 cannot move outwardly because of the engagement of the tongue 72 within a pocket 50 and further because of the screw 76 engaging the next higher pocket 50 whereby to prevent vertical displacement of the bracket 60 with respect to the channel 34.

The bracket plate 62 in the installed position is disposed substantially perpendicular to the longitudinal axis of the channel 34 and extends outwardly therefrom in a shelf supporting position. The outer end of the plate 62 may be rounded as at 82 and may be provided with a dish-shaped portion 84 (see particularly FIG. 6) having an upwardly extending frusto-conical portion 86 therein provided with an aperture 88 to receive a suitable fastener 90 therethrough. Additional apertures such as the apertures 92 and 94 may be provided in the plate 62, each of the apertures 90, 92 and 94 being adapted to receive suitable fasteners such as the screw 90 therethrough whereby firmly to secure the bracket 60 to an overlying shelf 36.

From the above description it will be seen that the bracket 60 can be readily mounted upon a channel 34 at any point therealong. More specifically, the bracket 60 is first placed in the position illustrated in FIG. 8 whereby the ears 68 can be moved rearwardly between the confronting edges of the channel flanges 46 and 48. Thereafter the bracket is rotated 90° through the position illustrated in FIG. 9 of the drawings to a position such as that illustrated in FIG. 10. The tongue 72 is then forced rearwardly and downwardly into a pocket 50 after which a screw 76 is inserted in the aperture 74 and moved into engagement beneath the bracket 50 disposed above the pocket receiving the tongue 72. The bracket 60 is now firmly mounted upon the associated channel 34. A shelf can now be mounted upon the horizontal plate 62 of the bracket by means of suitable fasteners passing through the apertures 90, 92 and 94.

Subsequent vertical adjustment of the bracket 60 with respect to the associated channel 34 can be accomplished by simply loosening the screw 76 so that it is no longer in engagement with a pocket 50. The bracket 60 can then be moved upwardly or downwardly until it assumes the desired new position with respect to the channel 34 after which the tongue 72 can be inserted in a new pocket 50. The shoulder 96 formed on the lower end of the flange 70 adjacent to the tongue 72 limits the downward movement of the bracket 60 with respect to the channel 34. Subsequent tightening of the screw 76 will fixedly hold the bracket 60 in the new adjusted position.

Alternatively, the bracket 60 can be completely removed from the associated channel 34 by first loosening the screw 76. Thereafter the tongue 72 is removed from the pocket 50 and the flange 70 tilted outwardly away from the channel 34 so that the bracket 60 can be rotated from the position illustrated in FIG. 10 through that illustrated in FIG. 9 to the position illustrated in FIG. 8. The bracket now can be moved outwardly whereby to detach it completely from the channel 34.

Referring now to FIGS. 11-15 of the drawings, there is shown an installation of multiple box shelving which can be mounted utilizing the mounting system of the present invention. In FIG. 11 an installation is shown wherein a plurality of the channels 34 has been mounted with the channels 34 in a vertical position parallel to each other and disposed in pairs to support on each pair thereof a plurality of spaced apart box shelves generally designated by the numeral 100. Preferably the box shelves on adjacent pairs of the channels 34 are staggered although other arrangements can be utilized if desired. Each of the box shelves 100 includes a bottom wall 102 which is provided at the rear thereof with a rear wall 104. Joined to the bottom wall 102 and the rear wall 104 are side walls 106 which close the ends of the walls 102 and 104. A top wall 108 completes the box shelving

100 whereby to provide a fully enclosed shelf with only the front thereof open.

Each of the box shelves 100 is supported by a pair of the brackets 60 which are suitably connected to the bottom wall 102 on the undersurface thereof and are spaced apart on the wall 102 a distance corresponding to the spacing between the channels 34 which are to support the shelf 100. When the ends of the channels 34 are not accessible, such as when the channels 34 extend from the floor to the ceiling, the brackets 60 are preferably first mounted on the associated channel 34 before attachment to the box self 100. Once the box shelf 100 has the associated bracket 60 attached thereto and mounted upon the channels 34, the position of the box shelf 100 can be adjusted along the channels 34 by loosening the screw 76 and placing the tongues 72 in others of the pockets 50.

Since the box shelf 100 may extend a substantial distance beyond the forward end of the associated brackets 60 whereby to give a tendency of forward tipping thereof, a top bracket 110 has been provided to secure the top of the box shelf 100 to the associated channel 34. As may be best seen in FIGS. 14 and 15 of the drawings, the bracket 110 is formed as a substantially flat rectangular plate which is provided at the rear thereof with a pair of oppositely disposed slots 112 which define laterally extending ears 114 that are adapted to be disposed within an associated channel 34. More specifically, the ears 114 are so shaped that they can be disposed between the main wall 40 and the flanges 46 and 48 whereby to bear against the rear surface of the flanges 46 and 48. The rear end of each of the brackets 110 is curved inwardly or recessed as at 116 whereby to clear the pockets 50 on the channel 34 thus permitting movement of the brackets 110 along the channel 34 during adjustment of the position of the box shelf 100. The construction of the slots 112 and the ears 114 permits the brackets 110 to be inserted in the channel 34 at any point therealong by first tilting the bracket 110 about its longitudinal axis whereby to permit insertion of the ears 114 between the inwardly directed edges of the flanges 46 and 48 after which the ears can be moved behind the flanges 46 and 48 and the bracket 110 tilted again along its longitudinal axis to the position illustrated in FIG. 14.

The forward end of the bracket 110 is formed as a rounded portion 118 and is provided with an aperture 120 therein which may be beveled to receive a bevel headed fastener. A pair of apertures 122 may also be provided in the body of the bracket 110 further to secure the bracket to a box shelf 100.

Preferably two of the top brackets 110 are provided on each of the box shelves 100, the brackets 110 being secured to the box shelf 100 by screws 124 after the bracket 110 has been assembled with the associated channel 34. Once the brackets 60 and 110 have been assembled with the associated channels 34 and thereafter secured to the box shelf 100, the entire assembly can be adjusted to any desired height along the channels 34.

It will be seen that there has been provided an adjustable shelving system and particularly improved brackets therefor which fulfills all of the objects and advantages set forth above. Although certain preferred form of the invention has been utilized and described, it is to be understood that various changes and modifications can be made therein without departing from the true spirit and scope of the invention. Accordingly, the invention is to be limited only as set forth in the following claims.

We claim:

1. A mounting system for box shelves and the like, comprising an elongated channel mounted with the longitudinal axis thereof disposed substantially vertically, said channel having a plurality of tongue receiving members formed thereon along the length thereof, inturned flanges formed on the longitudinal edges of said channel and extending substantially the length thereof to provide tracks therealong, a support bracket adjustably mounted on said

channel and adapted to engage the bottom of a box shelf thereon, said support bracket including a first plate adapted to lie along the front of the associated channel and a second plate formed integral with said first plate and extending outwardly therefrom and adapted to engage beneath the bottom of a box shelf, said first plate having a first pair of ears formed thereon engaging within said tracks to retain said support bracket on said channel and having a tongue thereon positioned in one of said tongue receiving members on said channels to position said support bracket vertically with respect to said channel, and a top bracket overlying the top of an associated box shelf and including a second pair of ears formed thereon engaging within said tracks to restrain outward movement of said top bracket, and means formed on said top bracket for attachment to the top of an associated box shelf.

2. A top bracket to mount a box shelf upon a channel having spaced apart retaining flanges spaced from a connecting wall to provide tracks in cooperation therewith and pockets extending outwardly from the wall toward the retaining flanges and disposed therebetween, said top bracket being substantially flat and having parallel upper and lower surfaces and including a body, one end of said body having a recess therein to clear the pockets of an associated channel and having ears extending laterally therefrom to engage behind the retaining flanges in the tracks of an associated channel, said body having apertures therein to receive fasteners to attach it to an associated shelf.

3. A mounting system for shelves and the like, comprising an elongated channel mounted with the longitudinal axis thereof disposed substantially vertically, said channel having a plurality of pockets formed thereon and spaced equidistantly along the length thereof inturned flanges formed on the longitudinal edges of said channel and extending substantially the length thereof to provide tracks therealong, a support bracket adjustably mounted on said channel, said bracket including a first plate having a width and length greater than the distance between the confronting edges of said inturned flanges and disposed along the front of the associated channel, a second plate formed integral with said first plate and extending outwardly therefrom and adapted to engage beneath the bottom of an associated shelf, said first plate having a pair of ears formed thereon having a width less than the distance between the confronting edges of said inturned flanges and engaging within said tracks to retain said support bracket on said channel, a tongue formed on said first plate at the end thereof opposite said second plate and having a width less than the distance between the confronting edges of said inturned flanges and positioned in one of said pockets to position said support bracket vertically with respect to said channel, said ears and said tongue being insertable between said inturned flanges at any point along the length of said channel to mount said support bracket thereon, said first plate having an aperture therein adjacent to said tongue, and a fastener disposed in said aperture and engaging said bracket and said channel below one of said pockets to lock said bracket in a predetermined position with respect to said channel.

4. A support bracket for supporting a shelf on a channel having spaced apart retaining flanges spaced from a connecting wall to provide tracks in cooperation therewith and having pockets formed on the wall, said support bracket comprising a first plate adapted to lie against the forward surfaces of the retaining flanges of an associated channel, a second plate formed integral with said first plate and disposed substantially perpendicular thereto at

one end thereof and adapted to engage beneath the bottom of an associated shelf, a pair of ears formed from said first plate and disposed therefrom in a direction opposite to said second plate and adapted to lie behind the retaining flanges of an associated channel with the retaining flanges held between said ears and the rear surface of said first plate, a flange formed on said first plate at the end thereof opposite to said second plate and disposed at an angle with respect to said first plate and away from said second plate and adapted to extend between the retaining flanges of an associated channel, a tongue formed on the end of said flange and being adapted to engage in a pocket of an associated channel, a shoulder formed at the junction of said flange and said tongue and adapted to engage the upper edge of the associated pocket to position said bracket along the associated channel, said flange having an aperture therein, and a fastener disposed in said aperture and engaging said bracket and the associated channel below one of the pockets thereof to lock said bracket in a predetermined position with respect to the associated channel.

5. A mounting system for box shelves and the like, comprising an elongated channel mounted with the longitudinal axis thereof disposed substantially vertically, said channel having a plurality of tongue receiving members formed thereon along the length thereof, inturned flanges formed on the longitudinal edges of said channel and extending substantially the length thereof to provide tracks therealong, a support bracket adjustably mounted on said channel and adapted to engage the bottom of a box shelf thereon, said support bracket including a first plate disposed along the front of the associated channel and a second plate formed integral with said first plate and extending outwardly therefrom and adapted to engage beneath the bottom of a box shelf, said first plate having a first pair of ears formed thereon engaging within said tracks to retain said support bracket on said channel, a flange formed on said first plate at the end thereof opposite to said second plate and disposed at an angle with respect to said first plate and away from said second plate and adapted to extend between the retaining flanges of said channel, said first plate having a tongue thereon positioned in one of said tongue receiving members on said channels to position said support bracket vertically with respect to said channel, said flange having an aperture therein and a fastener disposed in said aperture and engaging said channel to lock said support bracket in a predetermined position with respect to said channel, a top bracket overlying the top of an associated box shelf and including a second pair of ears formed thereon engaging within said tracks to restrain outward movement of said top bracket, and means formed on said top bracket for attachment to the top of an associated box shelf.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

246,875	Eggelston	Sept. 13, 1881
310,024	Bowman	Dec. 30, 1884
361,111	Baines	Apr. 12, 1887
721,404	Wege	Feb. 24, 1903
739,804	Allen	Sept. 29, 1903
813,501	Keil	Feb. 27, 1906

##### FOREIGN PATENTS

179,618	Germany	Dec. 12, 1905
227,205	Germany	Oct. 17, 1910
276,363	Switzerland	Oct. 1, 1951