M. REIGERSBERG.

SHELVING CONSTRUCTION.

APPLICATION FILED SEPT. 17, 1920.

1,381,501.

Patented June 14, 1921.

2 SHEETS—SHEET 1.

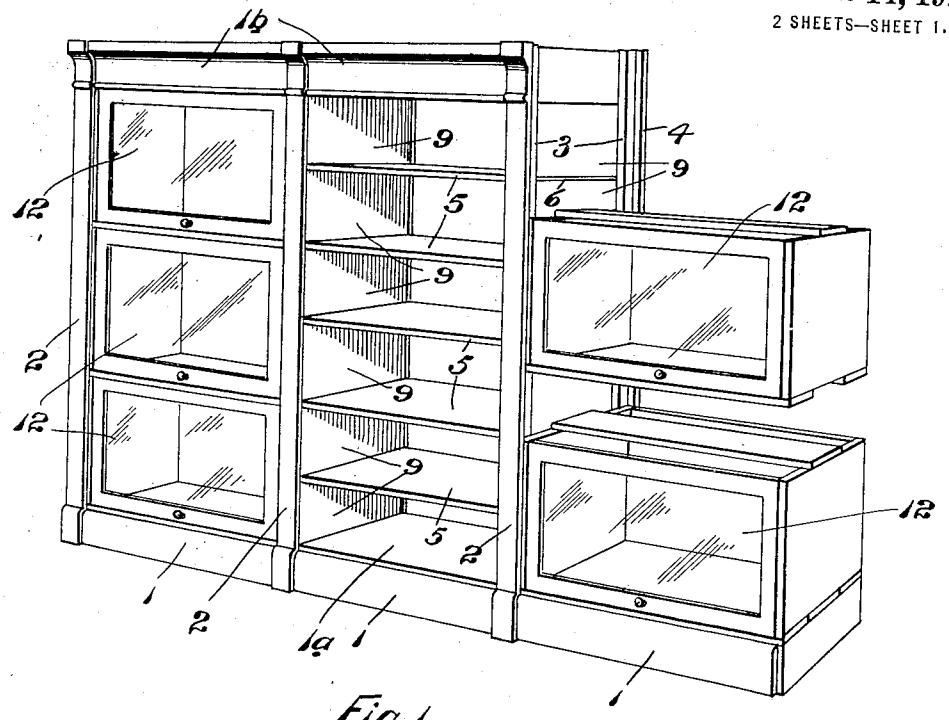


Fig. 1.

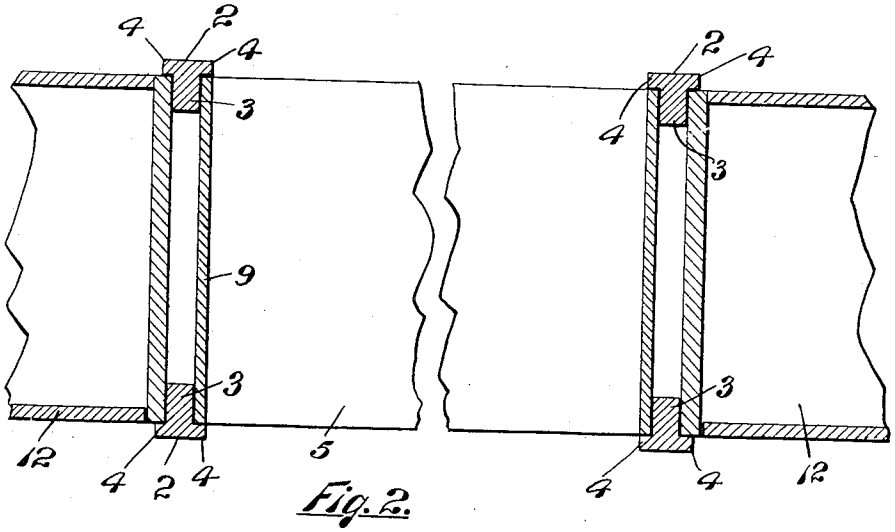


Fig. 2.

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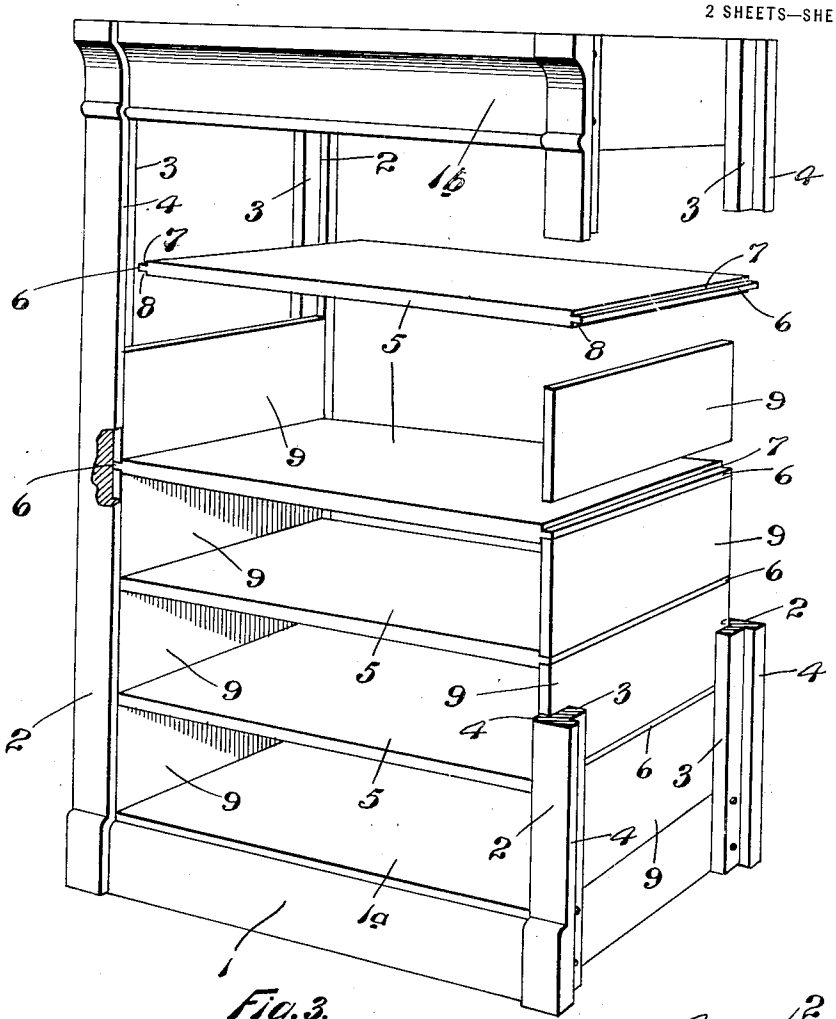


Fig. 3.

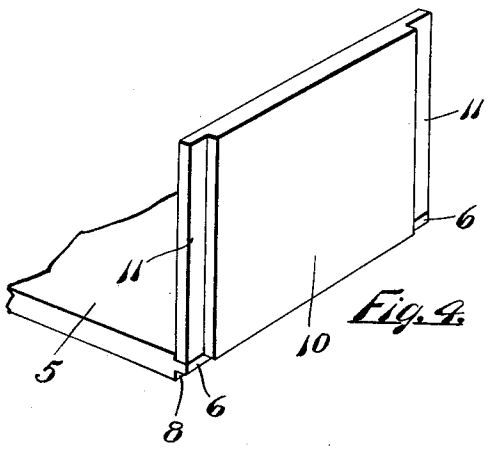


Fig. 4.

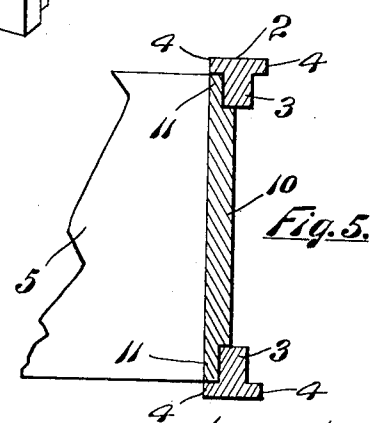


Fig. 5.

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UNITED STATES PATENT OFFICE.

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SHELVING CONSTRUCTION.

1,381,501. Specification of Letters Patent. Patented June 14, 1921.

Application filed September 17, 1920. Serial No. 410,852.

To all whom it may concern:

Be it known that I, MORRIS REIGERSBERG, a citizen of the United States of America, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Shelving Constructions; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a shelving construction. It is a primary object and purpose of the present invention to construct a shelving unit which may be used either individually or in connection with other units of the same kind, or in combination with sectional furniture of the type and character shown in United States Patent No. 1,219,891, issued March 20, 1917, to Henry Williams, the shelving construction being very simple in construction, and particularly practical as a manufacturing proposition in that every part thereof may be made completely on wood working machines without the necessity of any hand work which is slow and expensive. A further object of the invention is to make a shelving construction especially adapted to carry shoe boxes, and capable of rearrangement and adjustment of the shelves for the various heights of shoe boxes; though it is to be understood that the construction is not limited in any way to the one use but is or may be adapted for the holding of practically any type of merchandise.

In sectional furniture of the type shown in the patent above noted, a pilaster is entered at the front between the ends of adjacent stacks of sections and secured to the ends of the sections, said pilaster having laterally extending overlapping edges to aline the sections and cover the meeting edges of the sections and the pilaster. In the present invention use is made of an identical pilaster having like laterally extending overlapping portions which in connection with other means in the shelving construction serve to securely lock the shelves in place, while said pilasters at the ends of the shelving construction serve to position the ends of adjacent sections of the sectional furniture and act as a support to which the sections may be attached. Likewise, a number of the sectional units may be used with more than one of the shelving constructions, and said shelving constructions may be placed in succession, the shelves of adjacent units of shelving being supported at adjacent ends by the same pilasters. The construction, in fact, is susceptible of use in practically any and all relations where shelving is used and withal is simple to make, especially inexpensive to make, and in finished form presents a finished appearance with no projecting corners or the like to obstruct the entrance of merchandise on the shelves, the shelving construction at its ends between shelves presenting surfaces flush with the edges of the overlapping parts of the pilaster with a complete elimination of projecting parts.

For the attainment of the ends described and of others not specifically set forth at this time, the construction shown in the accompanying drawings has been produced, in which drawings,

Figure 1 is a perspective view of the shelving construction shown in association with sectional units.

Fig. 2 is a horizontal section taken through the construction shown in Fig. 1.

Fig. 3 is a perspective view, with parts broken away, shown in section and in separated relation, of the shelving construction of my invention.

Fig. 4 is a fragmentary perspective view illustrative of a modified form of spacer which may be used between shelves widely separated, and

Fig. 5 is a fragmentary horizontal section through one end of a shelving unit construction in which said type of spacer is used.

Like reference characters refer to like parts in the different views of the drawings.

In the construction of the shelving, a base 1 having a horizontal top 1^a is used from each of the four corners of which a pilaster extends upwardly, each pilaster being secured at its lower end to the base by screws or similar suitable fastenings. The pilasters, indicated at 2, have each a body 3 from which at one side overlapping lateral extensions 4 project. As attached to the bottom 1, said parts 4 on the front pilasters are at the front, and on the rear pilasters are on the rear. The ends of the bottom are attached to the inwardly extending bodies 3

of the pilasters while the lateral extensions 4 lie in front and back of the front and back of said bottom as shown in Fig. 2. A top 1^b secured to the pilasters in the same way at their upper ends completes the frame of the shelving unit. It is apparent that by removal of the screw connections, the frame may be shipped in knock-down condition and set up after arrival at its destination.

The shelves 5 used are of rectangular form being cut at each end to make a tongue 6 extending the full width of the shelf. In forming the tongue substantially equal portions of the shelf are removed at the end of the shelf both above and below the tongue left whereby notches 7 and 8 are made as shown the entire width of the shelf at each end. The tongues project from the ends of the shelves a distance substantially equal to the lateral projection of a part 4 from each pilaster.

The shelves are located in spaced apart horizontal relation and are held spaced apart by spacers 9 which, preferably, are of rectangular shape, being sawed from boards having a thickness substantially equal to the lateral projection of a part 4 from the pilasters used, or the same thickness as the projection of a tongue 6 from an end of a shelf. It is evident that the lower end upper edges of a spacer are designed to fit into the upper notch 7 of the shelf next below and into the lower notch 8 of the shelf next above; and as the spacers 9 lie against the inwardly projecting portions 3 of the pilasters at the ends of the shelving unit, and are of the same thickness as the projection of parts 4 from the pilasters, a smooth and flush surface is presented on the inner sides of the shelving construction, there being no projecting angles of any kind to interfere with the placing of goods on the shelves. The illustration made shows the spacers 9 and the parts 4 larger than used in practice, and they are thus shown for clearness of disclosure, as in practice the spacers need be but one quarter to three eighths of an inch in thickness, particularly where the shelves are placed relatively close together.

For constructions where the shelves are placed farther apart, a slightly modified form of spacer may be used as shown in Figs. 4 and 5. The spacers 10 in this case are thicker than the spacers 9 to furnish the requisite strength but are rabbeted at each end to leave sections 11 of the same thickness as the spacers 9 and of a length equal to the inward projection of the bodies 3 from the pilaster. The same smooth and flush inner surfaces for the shelving is attained and the thicker portion of the spacer is received between the bodies 3 of the pilasters at the ends of the shelving unit as best shown in Fig. 5.

The construction shown and described is very practical in every way. Every part thereof is a machine product. The shelves are sawed from lumber and the tongues 6 thereon made in the proper rabbeting machine. The spacers 9, the ones almost universally used are merely sawed from stock. The pilasters are made on wood working machines. In no case is the relatively slow and expensive hand process needed. The spacers may be made of different heights, and this is particularly valuable when the shelving is used for carrying shoes. The boxes for different sizes of shoes, or for shoes worn by men and women are of different depths and the shelves should be differently spaced therefor. With my invention, a readjustment of the shelving at any time may also be readily made should a change in stock make it advisable. The shelves when once in place are positively locked against movement in any direction. The spacers are likewise locked against movement, the shelving being particularly firm and substantial, as much so as though secured by fastening means. In fact, the shelving unit when assembled presents the appearance and effect of a solid rigid structure, and in actuality is such when in use: yet it may be shipped in the knockdown condition and quickly assembled without skilled labor, and the shelves adjusted at will for different heights of goods, requiring merely the proper height of spacers therefor.

The shelving units may be placed in horizontal alinement if desired, and a single pair of pilasters used at the meeting ends of the different units, as is obvious. Also the shelving unit may be interposed between sectional unit furniture constructions of the type invented by Henry Williams, above noted, and as shown in Fig. 1, where the shelving construction is interposed between the sections 12 shown as placed in superimposed relation to make a stack, using a bottom 1 like the bottom used with the shelving and a separate top 1^b the same as the top used with the shelving unit, the sections at their ends coming against the inwardly projecting portions 3 of the shelving pilasters and having their ends at the front covered by one of the laterally projecting portions 4 of the adjacent pilasters.

The invention while of relatively simple character is one of especial merit and is particularly valuable both from the standpoint of utility in service and from a manufacturing and marketing view. Its ready manufacture on a large quantity production basis, its knock-down features for transportation and for holding in stock at the factory, its quick and easy assembly without skilled labor, its ready adjustability for different heights of merchandise or for rearrangement of merchandise, and the smooth

and flush unbroken surfaces on the inner sides all combine to make the shelving construction of particular merit.

I claim:

1. A shelving construction comprising a base and top and four pilasters connecting the base and top at the corners thereof, each of said pilasters comprising an inwardly extending portion from which a laterally extending portion projects inwardly, a plurality of horizontally spaced shelves located between the base and top, each shelf at each end being formed with a tongue extending the width thereof and centrally located between the upper end lower sides of the shelf, the projection of each tongue from a shelf being substantially equal to the projection of said laterally extending portion from the pilaster, and spacers located between adjacent shelves and against the inwardly extending portions of the pilasters and bearing against the tongues of the shelves above and below said spacers to interlock therewith, substantially as described.

2. A shelving construction comprising a base and top and pilasters connecting said base and top at the corners thereof, each of said pilasters comprising an inwardly extending body from which laterally extending portions project at the outer parts of said body, a plurality of horizontally spaced shelves located between the base and top, and spacers holding the shelves in spaced apart relation and interlocking therewith and with the pilasters and having their inner surfaces flush with the edges of said laterally extending portions of the pilaster, substantially as described.

3. A shelving construction comprising a base and top and pilasters connecting the same at the corners thereof, a plurality of shelves located in spaced apart horizontal relation between the base and top, each of said shelves at each end having a projecting tongue of less thickness than the shelves and located between the upper and lower sides thereof, spacers between the shelves at the ends thereof, the tongues on any shelf being disposed between upper and lower spacers, and means on the pilasters engaging with the ends of the spacers to hold them from lengthwise movement, substantially as described.

4. A shelving construction comprising a bottom and top of rectangular outline, pilasters connecting the same at the corners thereof, shelves located in spaced horizontal relation between the bottom and top, and means interlocking with adjacent shelves at the ends thereof and with the pilasters for holding the shelves in spaced horizontal relation to each other, and against movement in any direction, substantially as described.

5. A shelving construction comprising a bottom and top, pilasters connecting the same at the corners thereof, horizontal shelves located and filling the spaces between the bottom and top, spacers located between the shelves at the ends thereof, means on the shelves for holding the spacers vertical, and means on the pilasters for holding the spacers against endwise movement, substantially as described.

6. A shelving construction comprising a bottom and top, pilasters connecting the same at the corners thereof, shelves positioned horizontally between the bottom and top, rectangular spacers located between the shelves at the ends thereof, means on the shelves for holding the spacers vertical, and means on the pilasters having free edges in the same vertical plane with the inner sides of the spacers for holding them from endwise movement, substantially as described.

7. A shelving construction comprising a frame including bottom, top, and pilasters connecting the same at the corners thereof, horizontal shelves positioned between the bottom and top and formed at their ends with projecting tongues, spacers located between the shelves at the ends thereof and bearing against said tongues, said spacers being held in vertical position between the shelves and pilasters, and inwardly extending overlapping portions on the pilasters covering the ends of the spacers with their inner edges in the same vertical planes with the inner sides of the spacers, substantially as described.

In testimony whereof I affix my signature.

MORRIS REIGERSBERG.