Oct. 7, 1941. C. W. JOHNSON 2,258,057

SHELF

Filed Nov. 8, 1938

Fig. 1.

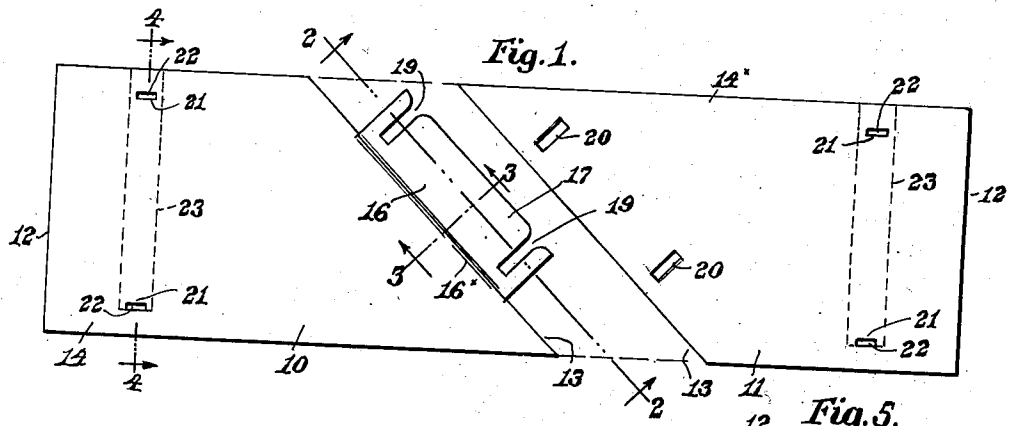


Fig. 2.

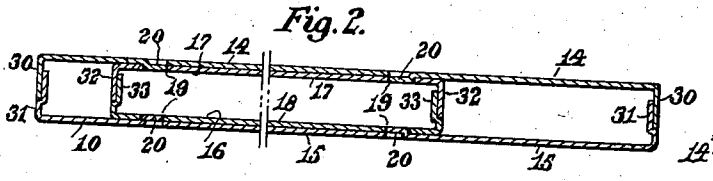


Fig. 3.

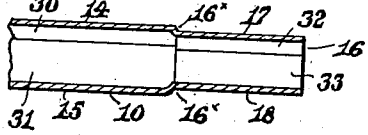


Fig. 4.

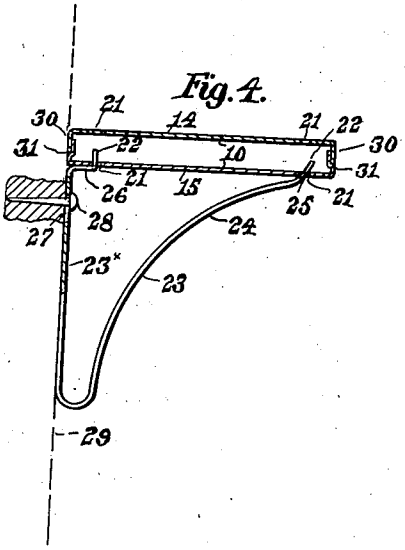


Fig. 5.

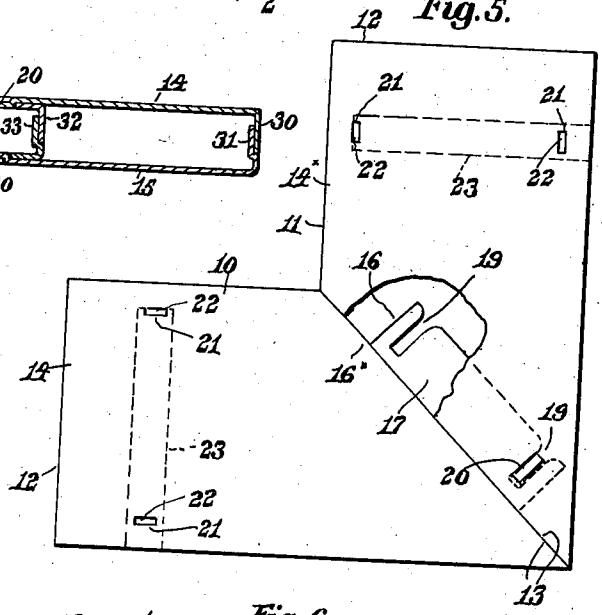
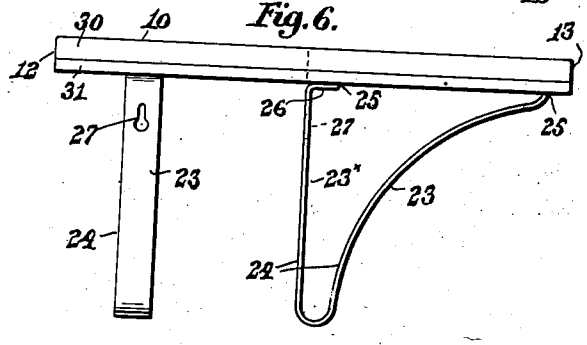


Fig. 6.



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Patented Oct. 7, 1941 2,258,057

UNITED STATES PATENT OFFICE

2,258,057

SHELF

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Application November 8, 1938, Serial No. 239,489

11 Claims. (Cl. 211—90)

This invention relates to shelves and particularly to a shelf which is made hollow and in two parts, each part being formed of sheet metal, these parts being adapted to be joined together either in alinement or at right angles to each other.

The invention consists in a shelf centrally divided into two parts, each part being closed at one end and opened at the opposite end, the opened ends extending transversely of the shelf parts at an angle of 45 degrees.

The invention further consists in providing one part of the shelf with a tubular extension preferably formed integral therewith, this extension projecting from its open end and being adapted for insertion into the open end of the other part.

The invention further consists in providing each shelf part with a wall bracket which may be connected quickly to either shelf part in different positions, said bracket having upwardly extending ears for insertion into elongated openings in either the upper or lower walls of the two parts of the shelf.

The invention further consists in providing the vertical portion of each wall bracket with a keyhole slot by which the bracket may be locked in position upon a headed pin extending from a vertical wall of a building.

The object of the invention is to provide a demountable shelf in two parts which may be assembled to accommodate it to various conditions when securing it to a wall, as for instance against a flat wall, into a recess of a wall, or around a projecting corner of a wall.

This object is attained by the mechanism illustrated in the accompanying drawing.

For the purpose of illustrating the invention, one preferred form thereof is illustrated in the drawing, this form having been found to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized, and the invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described except as required by the scope of the appended claims.

Of the drawing—

Figure 1 represents a plan of a two-part shelf embodying the principles of the present invention, the two parts thereof being shown as separated from each other.

Figure 2 represents a vertical section thereof on line 2, 2 on Fig. 1.

Figure 3 represents a vertical section thereof on line 3, 3 on Fig. 1.

Figure 4 represents a vertical section of the shelf and one of its supporting brackets, the cutting plane being on line 4, 4 on Fig. 1.

Figure 5 represents a plan of said shelf with its two parts assembled at right angles to each other, and

Figure 6 represents a side elevation of said shelf.

Similar characters indicate like parts throughout the several figures of the drawing.

In the drawing is shown a shelf formed in two parts 10 and 11, each part being made up of sheet metal closed at one end 12 and opened at the other end 13.

The ends 13 of the two parts 10, 11 are at an angle of 45 degrees to the side walls of the shelf.

The two parts 10, 11 are hollow with an upper wall 14 and a lower wall 15.

The part 10 has extending from its open end a tubular extension 16, the upper and lower walls 17, 18 of which are integral with the upper and lower walls 14, 15 and are slightly depressed therefrom, as shown at 16x, so as to fit within the open end of the part 11 and contact with the inner faces of the upper and lower walls 14x, 15x thereof.

The upper and lower walls 17, 18 of the extension 16 each have parallel slots 19 formed therein perpendicular to the open end 13 of the part 10.

In the part 11 the upper and lower walls 14x, 15x have struck therefrom ears 20 extending inwardly into alinement with the slots 19 in the upper and lower walls 17 and 18 of the tubular extension 16.

When the two parts 10, 11 as shown in Fig. 1 are moved toward each other to lock the two parts together to form a straight shelf, the ears 20 will enter the slots 19 and prevent any lateral movement of one part 10 or 11 relatively to the other.

When the two parts 10, 11 have been locked together in the manner just described, the shelf is very rigid owing to the tubular character of the extension 16.

Near the outer ends of the parts 10, 11, the upper and lower walls 14, 15 have extending transversely therethrough near the side edges thereof elongated slots 21, and these slots are adapted to receive the upwardly extending ears 22 formed upon the supporting brackets 23.

These brackets 23 are made of spring metal

and the body portion **24** of which is wider than the narrow ears **22**.

Owing to this construction shoulders **25** are formed on the opposite sides of the ears **22** on which shoulders the shelf is adapted to rest.

The rear vertical portion **23***x* of the bracket **23** has a forward bend **26** therein on which the rear end of the shelf is adapted to rest when the ear **22** is inserted into one of the rear slots **21**.

This rear vertical portion **23***x* of each bracket has a keyhole slot **27** formed therein to coact with a headed pin **28** inserted into a vertical wall **29**.

When it is desired to remove the bracket **23** from the shelf the forward curved portion of the bracket **23** may be sprung rearwardly until the forward ear **22** is removed from the slot **21** in the forward portion of the shelf.

This having been done it is easy to disengage the shelf from the rear ear **22**.

When the shelf is mounted upon the bracket **23** the spring tension of the metal will retain it in position and prevent accidental displacement thereof, the front ear being inclined outwardly.

When it is desired to mount the shelf on a corner wall, the part **11** may be inverted and then when inverted connected to the part **10**.

When this is accomplished the two parts **10**, **11** will be in the position shown in Fig. 5 of the drawing at right angles to each other and firmly locked together.

The supporting brackets **23** may then be mounted on the pins **28** extending from the corner walls of a building and in this manner the brackets will be retained securely in position.

When it is desired to mount the shelf in a right angular position, both the parts **10**, **11** secured together as shown in Fig. 5 may be inverted and then the brackets **23** secured to the lower walls thereof with the ears **22** extending into the elongated openings **21**.

The side walls of the shelf are formed by flanges **30**, **31** formed on the upper and lower walls **14**, **15**, these flanges overlapping and being secured together by spotwelding, as shown in Figs. 2, 3, and 4.

The upper and lower walls **17**, **18** of the tubular extension **16** have flanges **32**, **33** overlapping and spotwelded together as shown in Fig. 2 of the drawing, thus giving great rigidity to the extension **16**.

It is obvious that the outer walls of the two parts **10**, **11** should have the same finish so that the walls of the two parts will conform to each other regardless of which part **10** or **11** is inverted relatively to the other.

This makes a very convenient form of shelf, the brackets **23** thereof being removable quickly from the parts **10**, **11** and capable of being secured to either the upper or lower wall of the parts **10**, **11** according to whether the two parts of the shelf are to be secured to a wall in alinement or whether these two parts **10**, **11** are to be disposed at right angles to each other to form a corner shelf in a recess or form a corner shelf surrounding a projecting corner wall.

A shelf thus constructed made up of two parts **10**, **11** with removable brackets **23** therefor which may be secured to the shelf in various positions is a great convenience as the various parts may be assembled to form shelves to suit various conditions.

The shelves may be cheaply constructed at little expense and being made of sheet metal they are very rigid and can support considerable weight.

It is believed that the many advantages of a shelf thus constructed will be fully apparent without further description.

Having thus described my invention, I claim:

1. A sectional shelf centrally divided at an angle of 45 degrees into two parts both formed rectangular in cross section of sheet metal, one part having integral therewith at its angular end an extension provided with a plurality of parallel slots, and the other part being open and provided with inwardly projecting ears integral therewith adapted for insertion into certain of said slots when the two parts of the shelf are telescoped together.

2. A sectional shelf centrally divided at an angle of 45 degrees into two parts both formed rectangular of sheet metal, one part having integral therewith at its angular end an extension provided with a plurality of parallel slots in which the walls of said slotted extension are depressed from the upper and lower walls of said shelf part; the other part being open at the angular end to receive said extension; and inwardly projecting ears integral with the upper and lower walls of the other part and adapted for insertion into certain of said slots when the two parts of the shelf are telescoped together.

3. A sectional shelf centrally divided at an angle of 45 degrees into two parts both formed rectangular of sheet metal, one part having integral therewith at its angular end an extension provided with a plurality of parallel slots in the upper and lower walls thereof, said slotted extension being tubular with its side walls secured together; the other part being open at the angular end to receive said extension; and inwardly projecting ears integral with the other part adapted for insertion into certain of said slots when the two parts of the shelf are telescoped together.

4. A hollow sectional shelf made in two parts each part being rectangular in cross section and formed of sheet metal with wide parallel upper and lower walls and narrow front and rear walls, said parts having integral therewith means for positioning said parts in alinement or at right angles to each other when the two parts of the shelf are telescoped together.

5. A shelf as set forth in claim 4 in which the upper and lower walls of each part between the front and rear walls thereof have a pair of equally spaced elongated slots therein parallel to the front and rear walls thereof, said slots providing means whereby the upward extensions of a bracket are insertable in the slots of either of said walls.

6. A shelf as set forth in claim 4 in which the upper and lower walls of each shelf part has two slots equidistant from and parallel with the front and rear walls thereof, a V-shaped supporting bracket of spring metal for each part, said brackets having at their upper ends narrow ears insertable into a selected pair of said slots in either the upper or lower wall of said parts, and the rear portion of each bracket having a horizontal portion on which the rear part of said shelf may rest.

7. A hollow sectional shelf formed in two parts rectangular in cross section of sheet metal and having formed integral therewith means for positioning said parts in alinement or perpendicular to each other and each part being provided with a pair of widely separated slots parallel to the front wall of said part and extending through each of the upper and lower walls, a V-shaped

bracket for each part, said bracket being formed of spring metal with narrow upwardly extending ears at the upper end insertable into a selected pair of said slots in either the upper or lower wall of each part of said shelf.

8. A shelf as set forth in claim 7 in which the V-shaped supporting brackets are formed of flat spring metal and are removable freely from said parts, each of said brackets having at their upper ends narrow ears insertable into a selected pair of said slots in either the upper or lower wall of either part with its rear vertical portion alined with either the front or rear wall of said part.

9. A sectional shelf centrally divided at an angle of 45 degrees into two hollow parts each part being rectangular in cross section with wide parallel upper and lower walls and narrower side walls, one part having its upper and lower walls each provided with an offset member having two parallel open ended slots therein and extending outwardly from and perpendicular to the angular edge thereof and the other part being open and provided with inwardly extending integral projections extending into the slots of said members to properly position the two parts relatively to each other when the two parts of the shelf are telescoped together.

10. A shelf as set forth in claim 9 in which the two hollow parts thereof are formed with overlapping flanges on the upper and lower walls forming closed front and rear walls.

11. A shelf as set forth in claim 9 in which the two hollow parts thereof are formed of sheet metal with the offset members integral with and extending from one part narrower than the open end of the other part.

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