Oct. 26, 1926. 1,604,509

W. M. CALDWELL

DISPLAY RACK

Filed Feb. 4, 1924

Fig. 1.

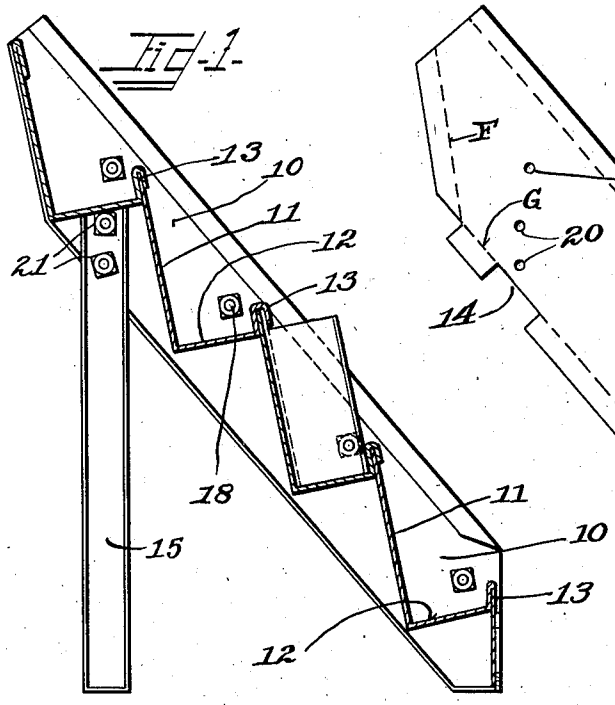


Fig. 2.

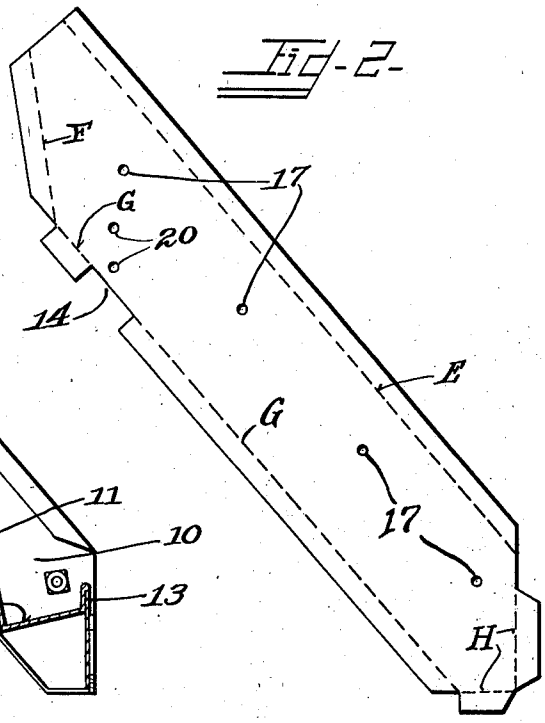


Fig. 3.

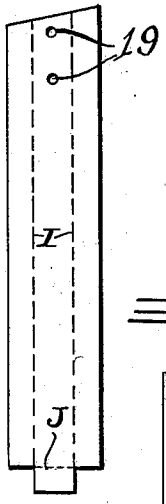


Fig. 4.

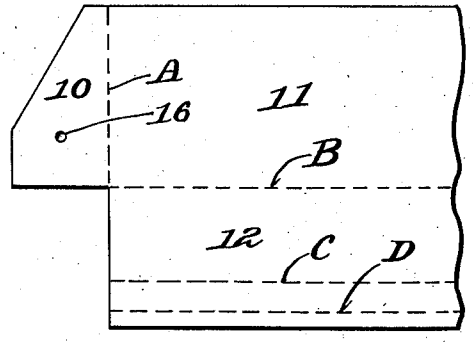
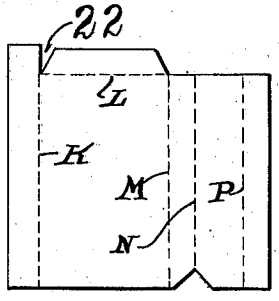


Fig. 6.



INVENTOR.
William M. Caldwell
BY
D. Dorpham
ATTORNEY.

Patented Oct. 26, 1926. 1,604,509

UNITED STATES PATENT OFFICE.

WILLIAM M. CALDWELL, OF LOS ANGELES, CALIFORNIA.

DISPLAY RACK.

Application filed February 4, 1924. Serial No. 690,433.

My invention relates to a display rack formed of sheet metal and primarily designed to be used in the display of periodicals but I do not confine myself to that use, as the rack may be used to display merchandise of various kinds. The object of my invention is to provide a display rack in which the body members are interchangeable and in which the parts can be easily assembled and disassembled and when disassembled the body members are nestable and the other members will lie close to the body members so that the whole are in close and compact form for shipping. A further object is to provide the body members with removable partitions, to the end that a body member may have a number of separate bins or receptacles for holding different kinds of merchandise.

In the drawings forming a part of this application:

Figure 1 is a vertical cross-section of my rack formed of four body members, and with one of the end members and leg member removed for clearness of illustration;

Fig. 2 is a plan of the blank of an end member;

Fig. 3 is a plan of the blank of a leg member;

Fig. 4 is an enlarged plan of the end of a body member;

Fig. 5 is a plan of a blank of a partition member;

Referring to the drawings, the body members are formed of strips of sheet metal of such weight and thickness and length as may be desired. The upper corners are cut off on the angle at which the upper end edge of the completed rack will assume when the rack is positioned for use. A right angled section is cut from the lower corners which is determined by the depth and height of the body members. This depth and height is calculated from the articles to be displayed in the rack. Referring to Fig. 4 it will be seen that the upper portion of the blank projects beyond the lower portion and that a dotted line marked A is a prolongation of the end of the lower portion. The projecting top portion at each end is bent on the line A to lie at right angles to the other top portion and forms the ends 10 of the body member. The blank is then bent on the line B to lie at right angles to the upper portion or back of the body member and contacting with the lower portion of the end member. The blank is then bent on the line C at right angles to lie parallel with the back of the body member and the portion between the lines B and C forms the base or bottom 12 of the body member. The blank is then bent on the line D outwardly on itself and forms a pocket 13. An end strip blank is shown in Fig. 2. Each end strip blank is of the same shape but the edges are bent in opposite directions and toward each other or inwardly. The upper edge is bent on the line E and doubled on itself and forms a long pocket similar to pocket 13 in which the upper ends of the ends of the body members are received when the rack is assembled.

The upper end is bent at right angles to the other portion on the line F and when the rack is assembled lies behind the back of the top body member and supporting it. The lower edge has a notch 14 cut near the upper end in which the leg member 15 is received when the parts are assembled. The lower edge is bent at right angles to the other portion on the line G and lies beneath the ends of the body members and supporting them when the parts are assembled. Each end piece of a body member has a hole 16 therein which registers with a hole 17 in the end strip when the parts are assembled. Small bolts 18 are passed through these holes when the parts are assembled and hold the parts firmly united. These holes and bolts can be dispensed with, but I prefer their use as the rack is firmer with them than without their use. The lower end is bent on the lines H at right angles to the other portions and lie back of the body member when the parts are assembled. A leg member blank is shown in Fig. 3. The edges are bent at right angles to the other portion on the lines I and J. Holes 19 are punched in the top which register with holes 20 in the end members. Bolts 21 unite the legs to the end strips when the parts are assembled.

In order to make a smooth finish for the top edge of the top body member, I make the back a little wider than the other body members and fold it upon itself as shown in Fig. 1.

To make a better finish for the bottom member, I make it a little wider and use the extra width to bring the outside of pocket 13 down to the plane of the bottom of the end strips as shown in Fig. 1. This change in the top and bottom body members is not

necessary to the proper function of the rack but it gives it a better finish.

From this description it will be seen that I have provided a simple and efficient display rack which can be quickly assembled and disassembled and that the parts can be closely packed for shipping. It will be further seen that the body members are all interchangeable and that a rack of a large or a small number of body members can be assembled by simply changing the length of the end strips and leg members.

When it is desired to divide any body member into separate compartments or bins, I provide a removable partition which is formed of the blank shown in Fig. 5. This blank on one edge is as long as the height of the back of a body member and has a notch 22 in the top edge and is bent on the line K at right angles to the other portion.

The top portion adjacent to the notch is doubled on itself on the line L to make a finish for the partition. It is then bent at right angles on the line M to lie parallel with the portion of the edge first bent. It is then doubled back on itself on the line N. The other edge is then doubled back on itself on the line P, which completes the formation of the partition and it is just wide enough to fit between pocket 13 and the back of the body member, and just long enough that when resting on bottom 12 the longer edge will project up into a pocket 13 which holds the partition firmly in place. It will be observed that each partition has a wide front edge that projects on both sides of the main portion so as to hold periodicals from falling out when placed in a bin formed by two of these partitions.

It will be observed that I could make the end strips of a shape in which the edges would not need to be bent but the appearance of the rack would not be as pleasing and it would not be quite as strong. In that case the end strips would be cut on the lines E, F, G and H. By changing the angle of the bottom of the back of the body members the rack may be used without legs.

Having described my invention I claim:

1. A display rack formed of sheet metal comprising a plurality of transversely extending body members, each member comprising a unit formed of back portions with end portions at right angles thereto and bottom portions at right angles to the back portions and portions projecting forwardly and then downwardly forming pockets at the front of the bottom portions, in which pocket the top portion of a lower unit is received; and end strips detachably secured to the end portions of the backs.

2. A disply rack formed of sheet metal comprising a plurality of transversely extending body members, each member comprising a unit formed of back portions with end portions at right angles thereto and bottom portions at right angles to the back portions and portions projecting forwardly and then downwardly forming pockets at the front of the bottom portions in which pocket the top portion of a lower unit is received; and end strips detachably secured to the end portions of the backs; and leg members detachably secured to the end strips.

3. A display rack formed of sheet metal comprising a plurality of transversely extending body members, each member comprising a unit formed of back portions with end portions at right angles thereto and bottom portions at right angles to the back portions and portions projecting forwardly and then downwardly forming pockets at the front of the bottom portions in which pocket the top portion of a lower unit is received; and end strips detachably secured to the end portions of the backs, said end portions having the top edge folded back on itself to form a pocket in which is received the top edge of the ends of the body members and having the bottom edge provided with a notch and turned under the body members; and leg members detachably secured to the end strips.

4. A display rack comprising a plurality of detachable units, each unit extending transversely of the rack and comprising a strip of sheet metal folded to form a vertical back piece with ends projecting forwardly and at right angles to the back portion, and then bent at right angles forwardly to the back to form a shelf member, and then bent upwardly parallel to the back but to a lesser distance, and then bent outwardly and downwardly whereby a downwardly opening pocket is formed adapted to receive the back of a lower unit as a completed rack is formed; and end pieces having the tops formed with downwardly opening pockets into which are received the top edges of the ends of the top units, said end pieces having at their lower ends portions bent at right angles and adapted to pass along the end of the back of the bottom unit.

5. In a display rack formed of units, a transversely extending unit formed of a strip of metal folded to form a back member, a shelf member, a front member of less height than the back member, and end members extending from the back to the front members, said end members being integral with the back member, said front member terminating in an outwardly and downwardly opening pocket in which is received the top of a lower unit when a plurality of units are used to form a rack.

In witness that I claim the foregoing I have hereunto subscribed my name this 1st day of November 1923.

WILLIAM M. CALDWELL.