

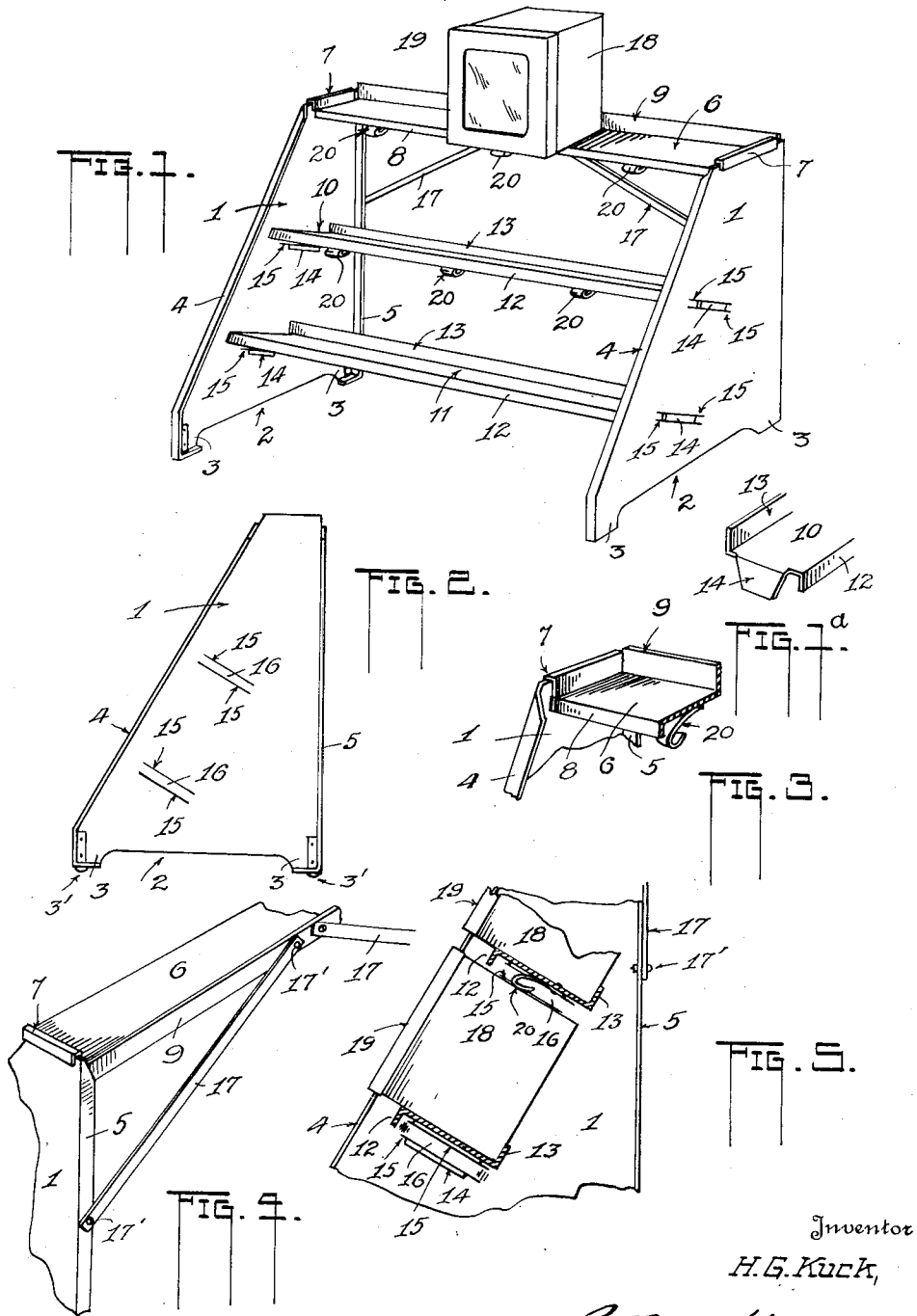
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DISPLAY RACK

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DISPLAY RACK.

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This invention relates to display racks of that type used for displacing goods contained in packages, such as cakes, crackers and the like.

5 An object of the invention is to provide a "knock-down" type of rack that can be made of sheet metal at a low cost of production, that will be exceedingly rigid and yet light in weight.

10 Another object is to construct a display rack of sheet metal all of whose members contribute to a rigid and strong structure.

Still another object lies in creating integral supporting parts in the end supporting members of said rack with which shelf ends engage.

Again, an object is to furnish a rigid and strong rack of a "knock-down" form that may be assembled and disassembled without the use of tools.

With these and other objects to be described I shall proceed to describe the rack in detail aided by the accompanying drawing forming part hereof wherein:

25 Figure 1 shows the complete rack of my invention in perspective.

Figure 1^a illustrates in perspective one end of one of the shelves included in the invention.

30 Figure 2 is an elevation of the inner side of an end supporting member.

Figure 3 shows, in perspective, part of a top shelf and an end supporting member, and means for supporting the former upon the latter.

Figure 4 shows in perspective a top shelf and end support together with bracing means attached to each, and

40 Figure 5 is a transverse section of part of the rack.

My rack includes two end upright supporting members 1 formed from sheet metal. In this instance these are substantially triangular in form the base lines of which lie at right angles to what may be termed their rear edges. Preferably the bases of the members are cut away at 2 whereby to create feet 3 which may be each provided with a ball portion 3' for ease of shifting the rack upon the floor. The front and rear edges of the supporting members each has a flange 4 and 5 respectively, which are bent up at right angles to the plane of the structure for lending great strength and rigidity, and to prevent buckling and sagging.

A top shelf is designated at 6. This has a hook portion 7 at each end designed to engage over the top edges of the members 1 as shown in Figures 3 and 4. Said shelf is furnished with a downturned flange 8 at its forward edge, and with an upturned rear flange 9, Figures 1 and 3. These flanges serve to brace and prevent buckling of the shelf, which, it is to be understood, is also formed of sheet metal, and as will appear, these flanges, in addition, serve to brace the end members when the parts are assembled, aided by similar flanges 12 and 13 of a lowermost shelf 11 as shown in Figures 1 and 5 as well as those of an intermediate shelf 10.

Each of these shelves 10, 11 has a downturned flange 14 at each end, one of which shelves is shown in Figure 1^a. Said shelves are designed to extend between the members 1, the ends of their flanges 12 and 13 abutting upon the latter, Figure 1.

Each member 1 at desired positions has pairs of spaced slits 15 cut therein creating between them a supporting strip 16, Figure 2, for a shelf-end, a flange 14 being slipped behind said strip through said slits 15 as shown in Figure 5, for example, each created strip 16 being pushed out of the plane of the member carrying it to permit the said flanges 14 of the shelves 10, 11 being slipped through the slits behind it. The ends of the flanges 8, 9 of the top shelf 6 abut against the members 1 in addition to said flanges 12, 13 of the shelves 10, 11 thereby bracing the whole structure and preventing "racking" thereof. If desired a further bracing aid may be provided by the use of a pair of braces 17 secured at one of their ends to the rear flange 9 of the top shelf 6 and at their other ends to the flanges 5 of the end members 1 by bolts 17' as suggested in Figure 4.

The articles to be supported, such as cake or cracker cans 18 are mounted upon the several shelves where they may abut upon the flanges 9 and 13, any or all of the shelves being inclined downwardly toward the rear side or back of the structure, the contents of the cans being readily seen, or they may be withdrawn from the containers by opening the lids or covers thereof. Preferably, in order that the cans on the shelves 10, 11 may be firmly held in place, yet readily removed, the under side of any shelf may have

attached thereto springs 20 of any approved form so disposed as to frictionally engage the can-tops just below after the manner shown in Figure 5, for example, said springs
 5 steadying the cans and exerting sufficient friction to permit the lids or covers to be opened without disturbing the alignment of the cans as they lie side by side.

The rack is light in weight, yet strong and rugged, and may be readily reduced to a knock-down form for storage or shipment, it being merely required, if the rods 17 are employed, to detach them at one of their ends to permit the whole affair to be dis-
 15 assembled.

A rack can be readily constructed of sheet metal and yet be strong and very rigid in use due to the described relation of the parts thereof and there are no separate connecting
 20 parts to become lost such as bolts or screws for fastening the shelves in place, and the exceedingly snug sliding fit of the end flanges 7 and 14 of shelves provide for firm abutment of the ends of the flanges 12, 13
 25 upon the end members 1.

Many manufacturers of bakery or other goods prefer to advertise their business and wares upon containers and racks. The broad surfaces of my rack are particularly
 30 suitable for the purpose, the sheet metal ends being produced at a lower cost than in any other type where a broad surface is desired.

I claim:

1. A display rack of the knock-down type
 35 including a pair of supporting members of sheet metal forming the ends of the rack, each having a turned integral flange on each of its upright edges, a top shelf of sheet metal having a turned flange at two
 40 opposite edges and also having a hook at each end each frictionally engaging upon the top edge of one of the members, a second shelf spaced below the said top shelf extending between the members and abut-
 45 ting at its ends upon the inner surfaces of the same and having a flange turned upon each of its longitudinal edges also abutting the members, there being a pair of spaced slits in each member at the position
 50 of the shelf-ends, said shelf having at each end an integral depending flange adapted to pass through both slits of a pair.

2. A display rack of the knock-down type
 55 including a pair of supporting members of sheet metal forming the ends of the rack, each having a turned integral flange at its upright edges, there being a pair of spaced slits in each supporting member, one pair
 60 lying opposite the other and both pairs being disposed at right angles to one of said edges, and a shelf disposed between the supporting members, the same having a turned

flange at each edge each adapted to abut at its ends upon one of the members, said shelf having a turned flange at each end,
 65 each engaging in both slits of a pair of said slits, said shelf acting to secure the supporting members relatively rigid.

3. A display rack of the knock-down type including a pair of spaced supports of sheet
 70 metal forming the ends of the rack, each having a turned integral flange at each of its edges arising from its base line, a shelf engaging the upper extremity of each support securing them in rigid spaced relation, there
 75 being a pair of slits in each support, and a second shelf interposed between the supports and having a flange at each end integral therewith, each extending through the slits of a pair, said shelf having a part at
 80 its ends to abut upon the supports adapted to brace the same and said shelf rigidly.

4. A display rack of the knock-down type including a pair of supporting members of
 85 sheet metal forming the ends of the rack, each having a turned integral flange at two upright edges, there being a pair of spaced slits in each supporting member lying opposite one another and disposed at right angles
 90 to one of said edges, a shelf disposed between the supporting members, the same having a turned flange at each edge each abutting at its ends upon the members, said shelf having a turned flange at each end
 95 integral therewith, each engaging in both slits of a pair of said slits, said shelf acting to secure the supporting members relatively rigid, and a shelf rigidly connecting the supporting members above the first named
 100 shelf and spaced therefrom.

5. A display rack of the knock-down type including a pair of supporting members of
 105 sheet metal forming the ends of the rack, each having a turned flange at two opposite edges integral therewith, there being a pair of spaced slits in each support lying opposite one another and disposed at right angles
 110 to one of said edges, a shelf disposed between the supporting members, the same having a turned flange at each edge abutting at its ends upon the members, said shelf having a turned integral flange at each end each
 115 engaging in both slits of a pair of said slits, said shelf acting to secure the supporting members relatively rigid, and a second shelf having a longitudinal flange adapted to abut at its ends against the supporting members
 120 above the first named shelf, said second shelf having a hook portion turned upon each end thereof each frictionally engaging over opposite surfaces of the supporting members at their tops.

In testimony whereof I affix my signature.

HENRY G. KUCK.