M. E. GENSLEY.

SHELF AND RACK CONSTRUCTION.

APPLICATION FILED NOV. 20, 1916.

1,286,280.

Patented Dec. 3, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

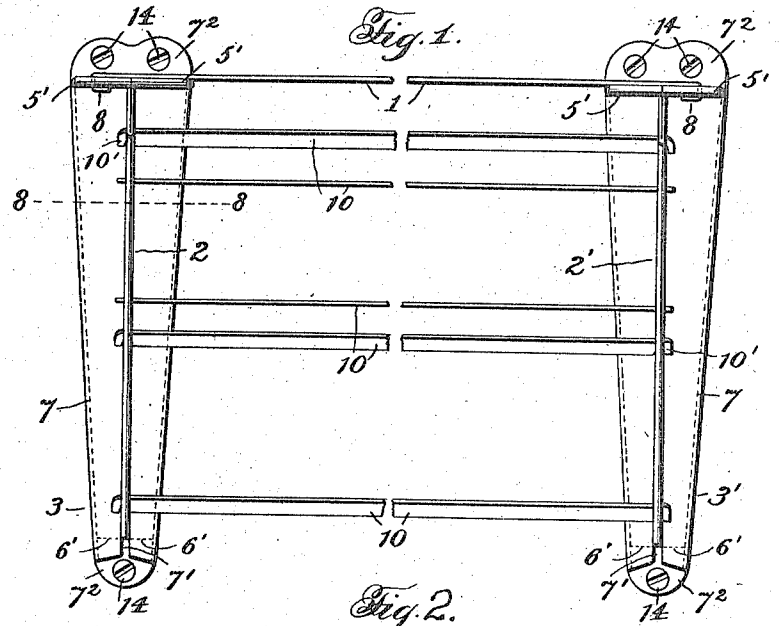
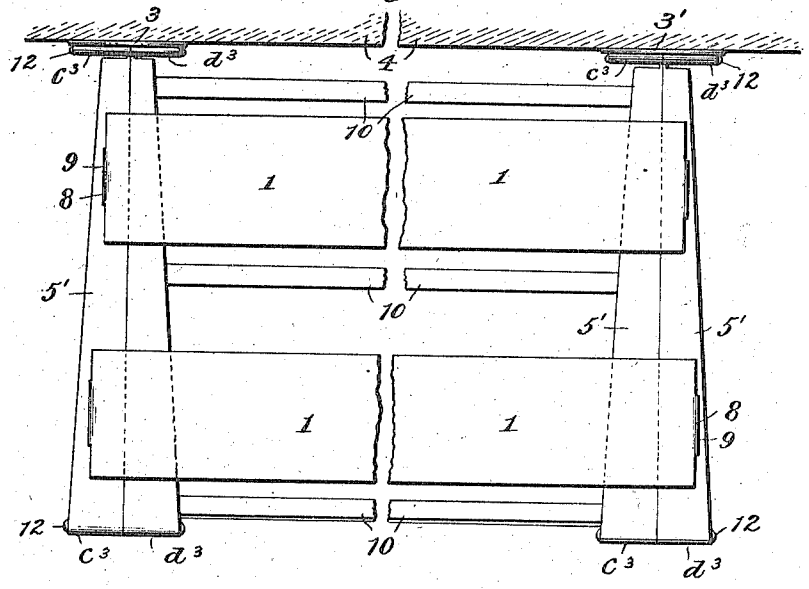


Fig. 2.



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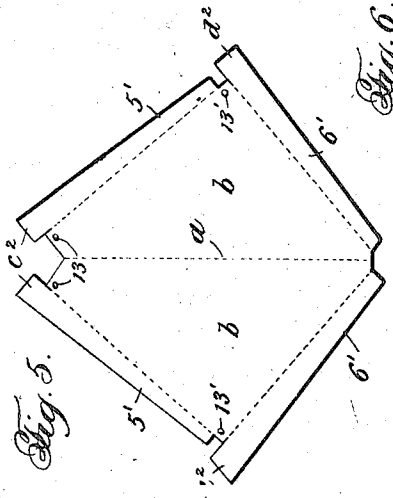
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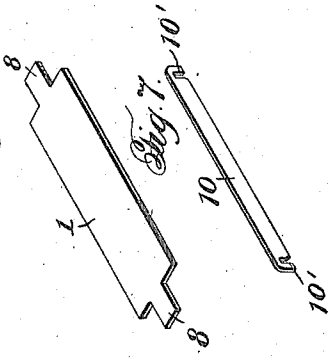
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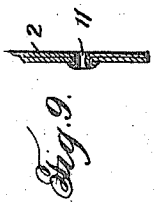
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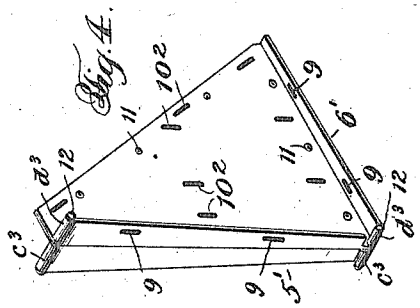
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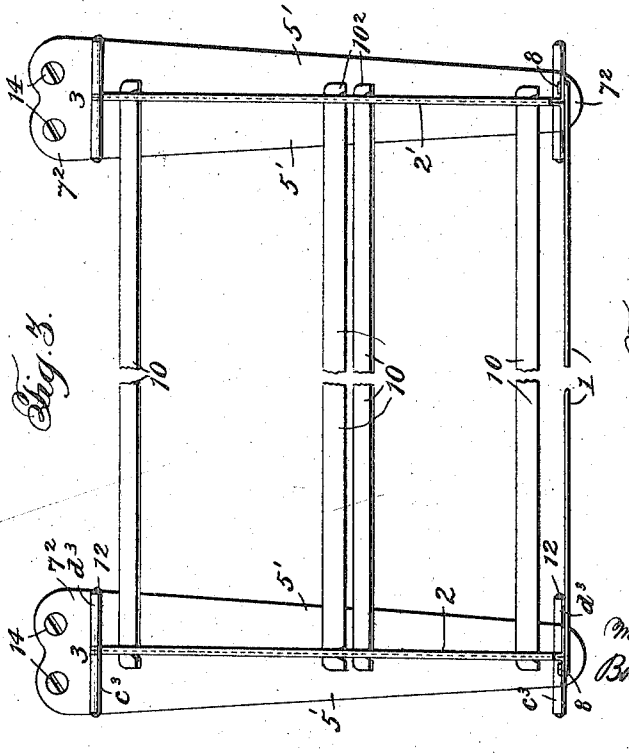
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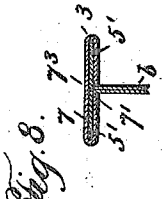












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UNITED STATES PATENT OFFICE.

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SHELF AND RACK CONSTRUCTION.

1,286,280. Specification of Letters Patent. Patented Dec. 3, 1918.

Application filed November 20, 1916. Serial No. 132,426.

To all whom it may concern:

Be it known that I, MARY E. GENSLEY, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Shelf and Rack Constructions, of which the following is a specification.

The present invention relates to improvements in shelf, clothes rack and similar constructions.

An object of the invention is to provide an improved knock-down shelf and rack device of very simple, light, inexpensive construction that will be strong and durable and can be quickly set up for use.

Another object of the invention is to provide an improved sheet metal bracket and attaching means therefor, the parts being simple and inexpensive in construction and adapted to be detachably connected together without securing means such as screws and similar fastenings.

A further object of the invention is to provide an improved supporting bracket and attaching means that affords a quick detachable connection between the bracket and attaching means along different sides or arms of the bracket structure permitting of different arrangements of the bracket structure with variations in the construction or relative arrangement of parts and the adjustment of the height of the shelf or other part supported by the bracket.

The invention, with other objects and advantages thereof and the particular construction, combination and arrangement of parts comprising the same will be understood from the hereinafter contained detail description when considered in connection with the accompanying drawings, forming a part hereof and illustrating one embodiment of the invention.

In the drawings:

Figure 1 is a front elevation of a combined shelf and clothes rack constructed in accordance with the present invention.

Fig. 2 is a top plan of the construction shown in Fig. 1.

Fig. 3 is a front elevation illustrating a different connection of the bracket with the attaching means.

Fig. 4 is a detail perspective of the bracket structure.

Fig. 5 is a diagram of the blank from which the bracket structure is made.

Figs. 6 and 7 are detail views of the shelf and clothes supporting bars.

Fig. 8 is a horizontal detail section of a portion of one of the brackets, and

Fig. 9 is a detail view, on an enlarged scale of the connection between opposing web portions of the bracket.

Referring to a detail description of the drawings, wherein like reference characters designate corresponding parts throughout the several views, 1 designates a shelf supported by a pair of brackets 2—2′ detachably connected with wall attaching members 3—3′ secured to a wall 4 or like part. The brackets 2—2′ and the attaching members 3—3′ are similar in construction. The brackets have arm portions extending substantially at right angles to each other, each of said arm portions being provided with longitudinally extending flanges 5′ and 6′ projecting laterally from opposite sides thereof, the flanges being adapted to fit within a socket 7 of one of the attaching members 3—3′, and the arm portions 5 and 6 being adapted to be alternately positioned to extend outwardly from the wall attaching members and serve as means to be directly engaged by or connected with the shelf 1. The shelf is constructed of sheet metal and provided with tongues 8 at each end thereof adapted to be bent into interlocking engagement with the flanges 5′ and 6′ of the bracket arms, the flanges 5′ and 6′ being provided with apertures 9 through which the tongues 8 are passed. This construction provides for different arrangements of the brackets with variations in the design of the structure and the adjustment of the height of the shelf without change in the position of the wall attaching members. In Figs. 1 and 2 of the drawings, the brackets 2—2′ are shown with the flanges 5′ of their arm portions 5 in engagement with the sockets 7 of the wall attaching members, the arm portions 6 of the brackets being directly connected with and supporting the shelf 1, the latter being positioned above the brackets; while in Figs. 3 and 4 of the drawings the flanges 6′ of the arm portions 6 of the brackets are seated in the sockets 7 of the attaching members with the arm portions 5 of the brackets, directly connected with the shelf 1, which in this in-

stance extends near the bottom of the brackets. 10 designates clothes supporting rods or bars provided at opposite ends with hook portions 10′ to engage apertures 10^2 in the brackets and detachably interlock therewith, said bars being employed with the arrangement of parts illustrated in Figs. 1 and 2 of the drawings, the rods 10 extending below the shelf 1, a clothes rack being thus provided in addition to the support afforded by the shelf 1.

Each bracket 2—2′ is constructed from a single piece or blank of sheet metal of substantially the shape illustrated in Fig. 5 of the drawings. In making the bracket, the blank is folded upon itself on the line *a* to form a substantially triangular shaped web *b* of double thickness, and the outer longitudinally extending marginal portions of opposite parts of the blank are bent outwardly at right angles to the main body portion or web to form the flanges 5′ and 6′, which with the adjacent portions of the web *b* constitute the arms of the bracket. The oppositely disposed portions forming the web *b* are secured together along their free edges in any suitable way. In the drawing these parts are shown connected by hollow rivets 11 struck up from one of the oppositely disposed web portions and passing through apertures in the opposite section or portion of the web. The pairs of flaps or portions *c*—*c*′ and *d*—*d*′ have tabs or extensions c^2 and d^2 which are folded back into hollow rolls or sleeves c^3 and d^3 and transverse pins 12 are fitted snugly within the interior of said rolls or sleeves, the pins passing through apertures 13 and 13′ in the web *b* at the outer end of the arm portions 5 and 6. This particular formation serves to reinforce and stiffen the bracket structure the rolls also being positioned to rest against the upper edge of the walls of the socket 7 of the wall attaching member when the flanges of the bracket arm are completely engaged therewith, lending rigidity to the connection and serving as stops to regulate the extent to which the flanges are inserted in the sockets. The tabs or extensions c^2 and d^2 are preferably of the tapering formation shown so that the flanges 5′ and 6′ of the bracket arms are tapering.

The wall attaching members are each constructed of a single sheet of metal bent around to form the sockets 7 tapering from top to bottom to correspond in size and shape with the tapering flanges 5′ and 6′ of the bracket arms, and having a central longitudinal slot 7′. 7^2 designates attaching ears projecting from opposite ends of the rear walls 7^3 of the attaching member and provided with openings for screws 14 or similar fastening members.

It will be observed that the knock-down sheet metal construction provided is of a simple light nature that can be very cheaply manufactured, at the same time provision is made for securing the necessary strength and rigidity of such constructions. Particularly is this so respecting the bracket structure, which as will be understood is susceptible of use for the many purposes for which brackets are generally employed.

It will of course also be understood that minor changes and variations in the particular embodiment of the invention illustrated in the drawings as will appeal to those skilled in the art and falling within the scope of the appended claims may be made without departing from the broad principles of the invention.

What I claim is:

1. A bracket consisting of a single piece of sheet metal of general rectangular shape folded upon itself to form a substantially triangular web portion of double thickness, the opposing sections of the web portion being secured together along their marginal free edge portions, said edge portions being provided with extensions extending longitudinally thereof and bent outwardly in opposite directions at right angles to the web portion to provide supporting arms, the fold or bight of the structure extending in a straight wall from the outer end of one of the supporting arms to the outer end of the other supporting arm.

2. A bracket consisting of a single piece of sheet metal folded upon itself to form a substantially triangular web portion of double thickness, the opposing sections of the web portion being secured together along their marginal free edges, said edge portions being provided with extensions extending longitudinally thereof and bent outwardly in opposite directions at right angles to the web portion to provide flanges projecting from opposite sides of said web portion along one edge thereof, a portion of said extensions at one end being folded back into a reinforcing roll or sleeve.

3. A bracket consisting of a single piece of sheet metal folded upon itself to form a substantially triangular web portion of double thickness, the opposing sections of the web portion being secured together along their marginal free edges, said edge portions being provided with extensions extending longitudinally thereof and bent outwardly in opposite directions at right angles to the web portion to provide flanges projecting from opposite sides of said web portion along one edge thereof, a portion of said extensions at one end being folded back into a reinforcing roll or sleeve, and a transverse pin fitting within said roll portions and passing through an aperture in the web.

4. A bracket consisting of a single piece

of sheet metal folded upon itself to form a substantially triangular web portion of double thickness, the opposing sections of the web portion being secured together along their marginal free edges, said opposing sections of the web portion being provided with extensions extending longitudinally thereof and bent outwardly at right angles thereto in opposite directions to provide flanges projecting laterally from opposite sides of said web portion along two edges thereof, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

MARY E. GENSLEY.

Witnesses:
EVA L. BLEAU,
G. E. LAU.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."