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C. F. DOEBLER.

BRACKET.

(Application filed July 29, 1899.)

(No Model.)

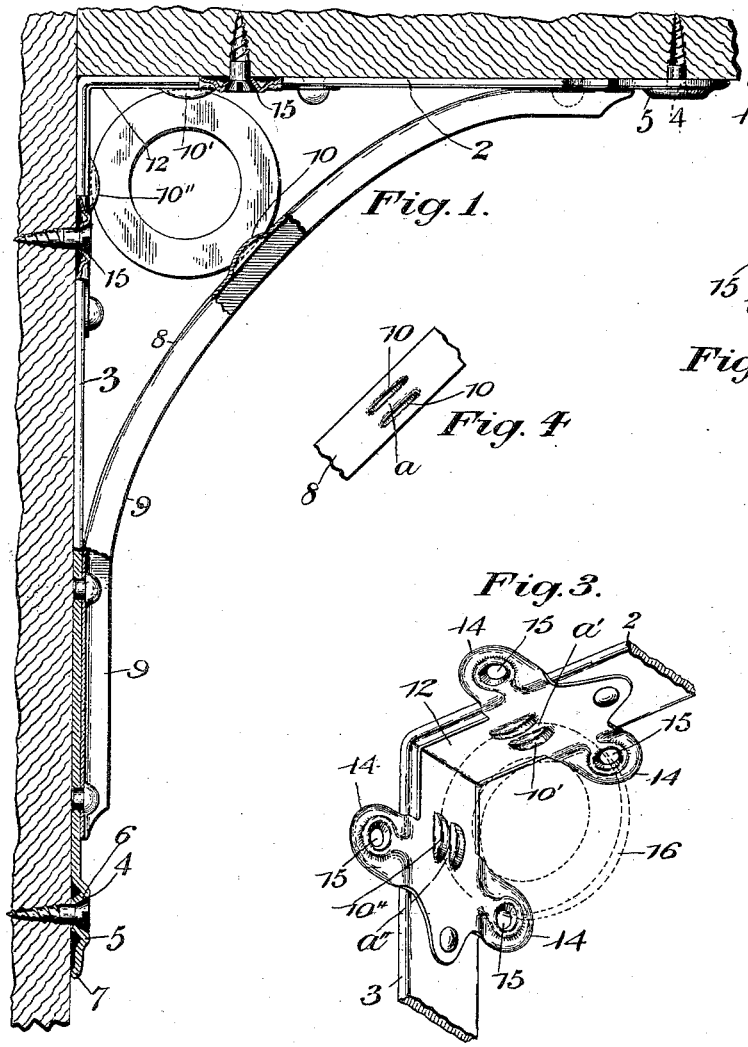


Fig. 1.

Fig. 4.

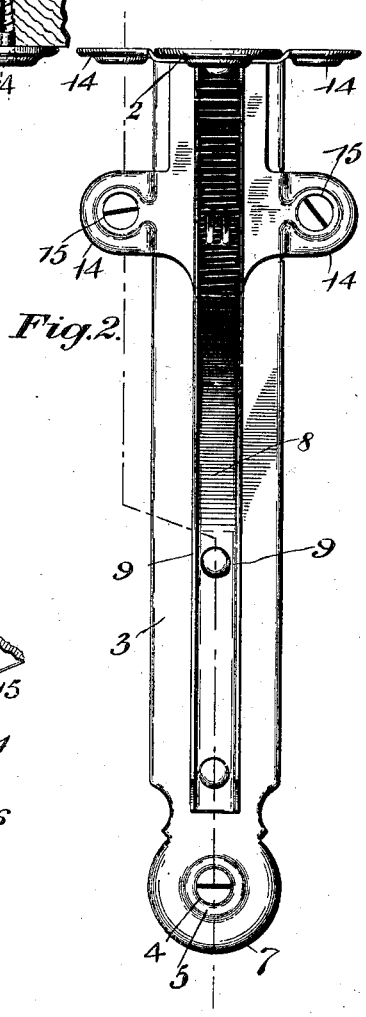
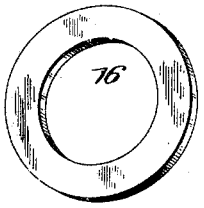


Fig. 2.

Fig. 3.

Fig. 5.



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UNITED STATES PATENT OFFICE.

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BRACKET.

SPECIFICATION forming part of Letters Patent No. 649,658, dated May 15, 1900.

Application filed July 29, 1899. Serial No. 725,463. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. DOEBLER, a citizen of the United States, residing in Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Brackets, of which the following is a specification.

This invention relates to brackets—such, for instance, as wall or shelf brackets; and the object of the invention is to provide an improved bracket of this class the parts of which may be struck out of sheet metal and readily assembled to provide a device simple in its construction, inexpensive to manufacture, and extremely rigid and durable, while at the same time pleasing in its appearance.

In the drawings accompanying and forming part of this specification, Figure 1 is a side view of one form of this improved bracket with parts thereof in section, the bracket being shown as secured to a wall or upright support and supporting a shelf. Fig. 2 is a front view thereof. Fig. 3 is a view, on an enlarged scale, of the angle portion of the bracket. Fig. 4 is a view of a portion of the rear side of the main brace, and Fig. 5 is a view of an auxiliary brace.

Similar characters of reference designate like parts in all the figures of the drawings.

This improved shelf or wall bracket is preferably constructed entirely of sheet metal, except as to the rivets used for assembling the parts, and it comprises, in a general way, an arm adapted to support a shelf and an arm adapted to be secured to a wall or other means of support, and which arms are shown formed as an integral structure at right angles to each other, a main brace secured to said shelf and wall arms, and an auxiliary brace having a three-part bearing with said arms and main brace and of a circular formation having a flat rim.

The bracket in its preferred form comprises a shelf-arm 2 and a wall-arm 3, integrally connected and at right angles to each other. Each arm is provided at its free end with an opening 4 for a suitable fastening device, such as a screw. Each of these openings is formed by bending the metal upon itself in such manner as to form a circular bead or rib 5, projecting above the face of the arm, whereby an opening is formed with an inclined wall 6 for the reception of a screw-neck. By this construction not only is the arm reinforced, but the cutting away of the metal to form a countersink is avoided, so that the metal is not reduced in thickness at those parts which receive the fastening devices. The wall-arm is also provided at its lower end with a reinforcing rib or flange 7, extending around the same, whereby it is strengthened. Secured intermediate the shelf-arm and wall-arm is a main brace 8, likewise struck out of sheet metal, and which main brace is reinforced by a pair of side flanges or ribs 9, preferably turned outwardly. This brace, intermediate the points where it is secured to the shelf and wall arms, is preferably curved and is provided on its inner face with a pair of parallel projections or lugs 10, thereby forming a recess a for the purpose hereinafter specified.

Secured to the shelf and wall arms 2 and 3, at the angle thereof, is an angle member 12, provided with two sets of projections or lugs 10′ 10″, forming recesses a' and a'', similar to that of the main brace. These recesses formed by the projections constitute an auxiliary brace receiving or holding means.

The angle member 12 is provided with two sets of laterally-extending ears 14, each having a pair of openings 15 for the reception of fastening devices. Each of these openings is formed in a manner similar to the openings 4 of the arms. The use of this angle member 12 permits the bracket to be secured in position adjacent to its angle at each side thereof and also assists in reinforcing the bracket at such angle.

For reinforcing the bracket and bracing the same in a substantial manner an auxiliary brace 16 is provided. This brace 16 is shown as a member having a three-point bearing engagement with the bracket members, such three-point bearing engagement being, respectively, with the shelf-arm, wall-arm, and main brace. In the form shown the auxiliary brace comprises a circular or disk-shaped member, preferably of less width than said arms and main brace, and having a circular opening forming a relatively-wide flat rim and disposed in position to have its periphery project into the recesses a, a', and a'' and between the projections 10, 10′, and 10″,

hereinbefore specified. By this organization it will be seen that this auxiliary brace materially reinforces and braces the bracket, while at the same time it gives a pleasing appearance to the same, which may be increased, if desired, by suitably ornamenting it. This auxiliary member may be struck up from sheet metal and owing to its circular formation and wide flat rim will give an increased rigidity to the bracket as compared with a bent or otherwise-formed member. This relatively-wide rim, moreover, prevents the auxiliary brace from being compressed or bent out of shape when the bracket is under stress, and consequently the giving way or breakage of the shelf-arm.

In conclusion it will be seen that the bracket, while extremely rigid in its structure, is comparatively inexpensive to manufacture, since all the parts can be readily made out of sheet metal and quickly and easily assembled.

Having described my invention, I claim—

1. A bracket comprising integral shelf and wall arms each having in connection therewith a pair of parallel projections or ears forming an auxiliary brace-receiving recess; a main brace secured to said arms and provided with a pair of integral projections or ears also forming an auxiliary brace-receiving recess; and a circular, flat-sided auxiliary brace in position intermediate said arms and main brace and having its edge projecting into said recesses.

2. A bracket comprising shelf and wall arms; an angle member secured to said shelf and wall arms and having means for attaching the bracket in position; a main brace connected with said arms; and an auxiliary brace intermediate said angle member and main brace.

3. A bracket comprising shelf and wall arms; an angle member secured to said arms; a main brace connected with said shelf and wall arms; and a disk-shaped auxiliary brace intermediate and in engagement with each member of said angle member and with the main brace.

4. A bracket comprising shelf and wall arms; an angle member secured thereto and provided with two pairs of projections for receiving an auxiliary brace; a main brace connected with said shelf and wall arms and also provided with a pair of projections for receiving an auxiliary brace; and a circular auxiliary brace disposed intermediate said angular member and main brace and having its edge overlapped by said projections.

5. A bracket comprising shelf and wall arms extending at right angles to each other, and an angle member connected therewith, one member secured to the wall-arm and the other to the shelf-arm, with its angle contiguous to the angle of the shelf and wall arms, and having means projecting at each side of said shelf and wall arms for attaching the bracket in position.

6. A sheet-metal bracket comprising integral shelf and wall arms extending at right angles to each other, each having at its free end an opening provided with a rib or bead and an inclined wall, and said wall-arm having a reinforced rib or flange at its free end; an angle member secured to said arms and provided with two sets of projections for the reception of an auxiliary brace, and also provided with laterally-extending ears having openings provided with ribs or beads and inclined walls; a curved main brace secured to said shelf and wall arms and having a pair of projections or ears on its inner face; and an auxiliary brace comprising a disk-shaped member having an opening, and disposed intermediate said arms and brace and having its edges extending intermediate said projections or ears.

7. A bracket comprising shelf and wall arms each provided with an opening formed by bending the metal of said arm upon itself to thereby form a bead or rib projecting above the surface of said arm and an inclined screw-receiving wall; and an angle member secured to said shelf and wall arms and having laterally-projecting ears each provided with an opening likewise formed by bending the metal thereof upon itself to provide a bead or rib projecting above the surface of said angle member and an inclined screw-receiving wall.

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