No. 624,723. Patented May 9, 1899.

T. V. ALLIS.

BRACKET.

(Application filed Dec. 21, 1897.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

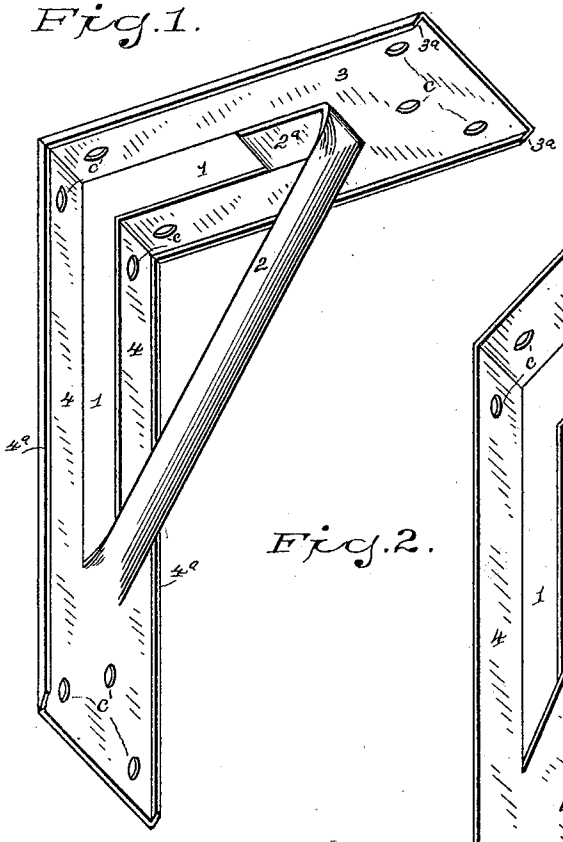


Fig. 2.

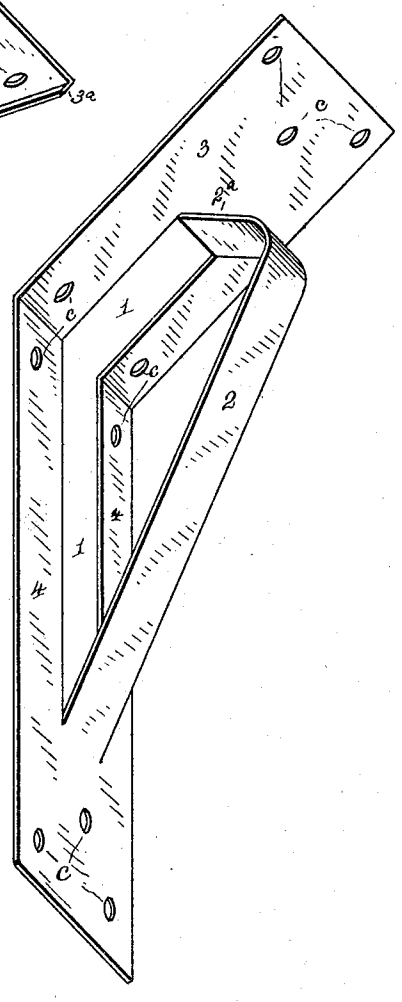
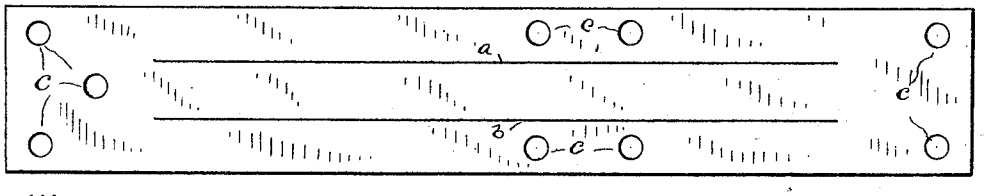


Fig. 3.



WITNESSES

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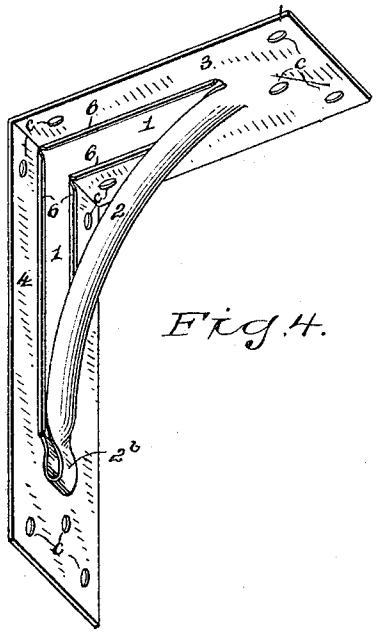


Fig. 4.

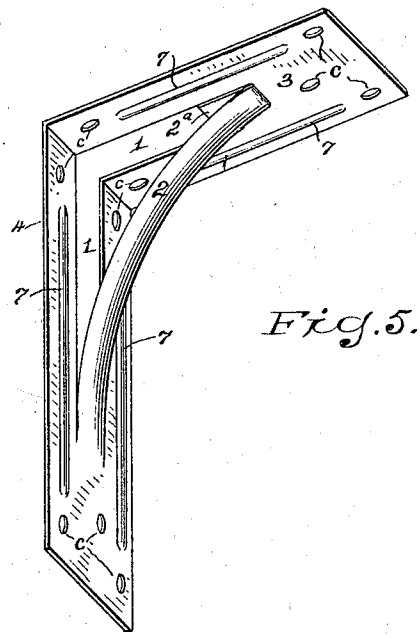


Fig. 5.

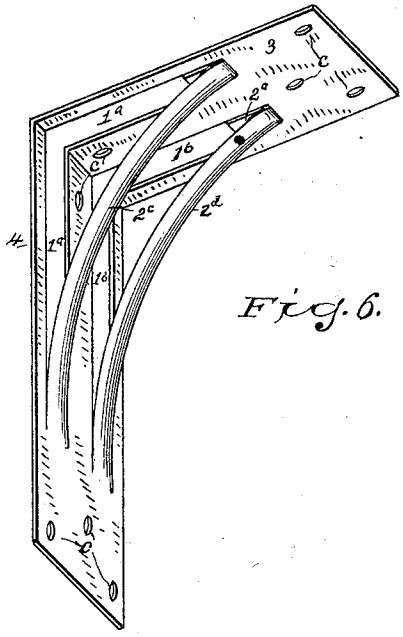
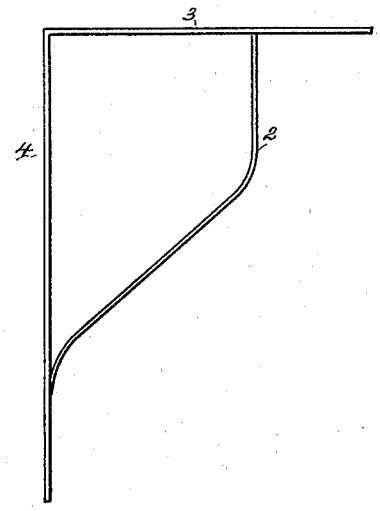


Fig. 6.

Fig. 7.



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UNITED STATES PATENT OFFICE.

THOMAS V. ALLIS, OF BRIDGEPORT, CONNECTICUT.

BRACKET.

SPECIFICATION forming part of Letters Patent No. 624,723, dated May 9, 1899.

Application filed December 21, 1897. Serial No. 662,819. (No model.)

To all whom it may concern:

Be it known that I, THOMAS V. ALLIS, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Brackets, of which the following is a specification.

My invention relates to an improvement in shelf-brackets or brackets of like character; and it consists in constructing the bracket, including the brace, from a single piece of sheet metal, which improvement will be more fully set forth in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 represents a view in perspective of the bracket constructed in accordance with my invention with a straight brace spanning the angle formed by the legs, showing also the edges thereof turned down to form flanges to stiffen such legs. Fig. 2 is a view in perspective of the bracket incomplete just previous to the operation of bringing together the two legs thereof at right angles with each other, showing more particularly the manner of shortening up the brace by folding or looping one end. Fig. 3 is a plan view of the metal strip, showing the first operation in forming the bracket—viz., severing the brace portion from the body of the metal strip along its sides. Fig. 4 is a perspective view of the completed bracket, showing the brace formed with an inward curve and the edges of the slot, from which the brace is cut from the body of the metal, turned down to form flanges to stiffen the bracket. Fig. 5 is also a perspective view of a completed bracket with an inward-curved brace with corrugations formed in the legs on each side of the opening to stiffen such legs. Fig. 6 is another modified construction showing a double brace also inwardly curved. Fig. 7 is a side elevation of the bracket and a modified construction of the brace, showing the same curved outward.

Its construction and operation are as follows: The bracket, as before stated, is made from a single piece of sheet metal, and the first operation consists, as shown at Fig. 3, in severing the metal on the lines *a b*, and, if desired, the screw-holes *c* may be punched therein, and at the same time the corrugations in the legs may be formed. The partially-severed section is then forced through the opening 1 (see Figs. 1, 2, 4, and 5) to form the brace 2 for the legs 3 and 4 of the bracket when said legs are bent at right angles with each other. The brace shown is U shape in cross-section to give it stiffness; but other forms may be employed, if desired. As the metal section that is forced through the opening in the metal strip is too long to span the angle formed by the legs of the bracket without shortening, the fold 2^a is formed in the upper part of the brace to lie against the under side of the horizontal leg 3, as shown at Figs. 1, 2, 5, and 6.

If desired, the brace 2 can be formed with an inward curve, as shown at Fig. 4, and shortened by means of the loop 2^b at the lower end or, for that matter, at the upper end, if desired. In Fig. 4 the legs are stiffened by turning down the edges of the elongated opening 1 to form the flanges 6, while in Fig. 1 the outer edge of the legs are also flanged for this purpose. In Fig. 5 the legs are provided with the corrugations 7 to give additional strength and rigidity to the legs, which corrugations are formed by depressing the stock in the surface of the metal strip.

In Fig. 6 is shown a bracket provided with the two inward-curved braces 2^c and 2^d, carried down from the openings 1^a and 1^b, while in Fig. 7 the brace is curved outward in such a manner that there is no folding required to shorten the same. It matters not, however, what shape the brace may be made to assume after it has been forced beyond the plane of the metal strip, so long as the principle of my invention is carried out, the gist of which consists in making the entire bracket of a single piece of sheet metal and forming the brace by partially severing a section of the metal and carrying it out of the plane of the metal strip to form the brace, leaving the ends of such brace integral with the legs. Neither do I wish to be held to the contour or shape of the legs of the bracket, as these, while shown of rectangular form, can be changed to any design required—such, for instance, as rounding the ends of the legs and changing the contour of their edges from a straight line to an irregular or curved one.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described bracket made of a single piece of sheet metal, the legs bent at right angles to each other, the brace formed from the body of the stock and having its ends connected to the legs and forming an integral part thereof; said brace being bent or curved to span the angle between said legs, substantially as shown and described.

2. The herein-described bracket, consisting of a single piece of sheet metal, the legs bent at right angles to each other, the brace formed from the body of the stock and having its ends connected to the legs, and forming an integral part thereof, said brace provided with a fold at or near its connection with said legs, whereby said brace is shortened so as to span the angle of said legs in the manner substantially as shown and for the purpose set forth.

3. The herein-described bracket consisting of a single piece of sheet metal, the legs bent at right angles to each other, the brace formed from the body of the stock and having its ends connected to the legs, and forming an integral part thereof, said brace U-shaped in cross-section to impart additional strength thereto, said brace also provided with a fold at or near its connection with said legs, whereby said brace is shortened so as to span the angle in substantially a straight line, for the purpose set forth.

4. As a new article of manufacture, a bracket made from a single piece of sheet metal and provided with two longitudinal slits which serve to separate the edges of the brace from the body of the bracket, the said brace being formed from the body of the stock and having its ends connected to the legs, and forming an integral part thereof, the legs bent at right angles to each other, and the brace being made to extend across the angle between the said legs, substantially as specified.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 18th day of December, A. D. 1897.

THOMAS V. ALLIS.

Witnesses:
JOHN B. CLAPP,
D. HOMER JENNINGS.