C. F. WOOD.

SHELF BRACKET.

APPLICATION FILED MAY 8, 1919.

1,354,270. **Patented Sept. 28, 1920.**

Fig. 3.

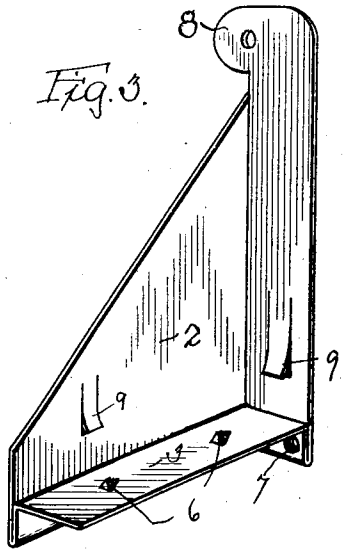


Fig. 2.

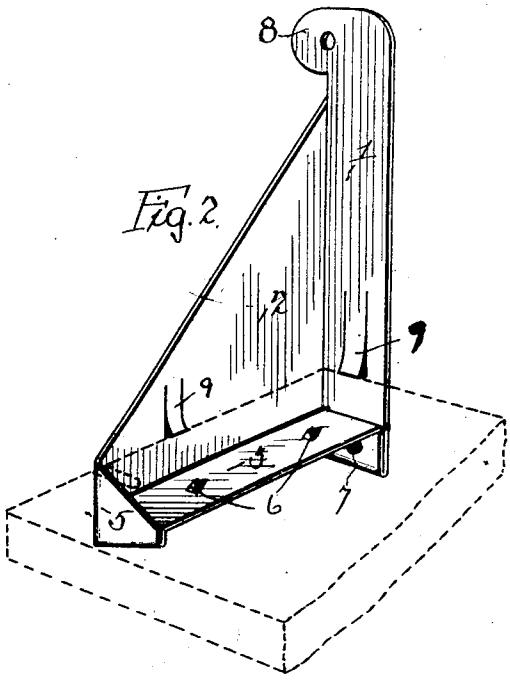


Fig. 1.

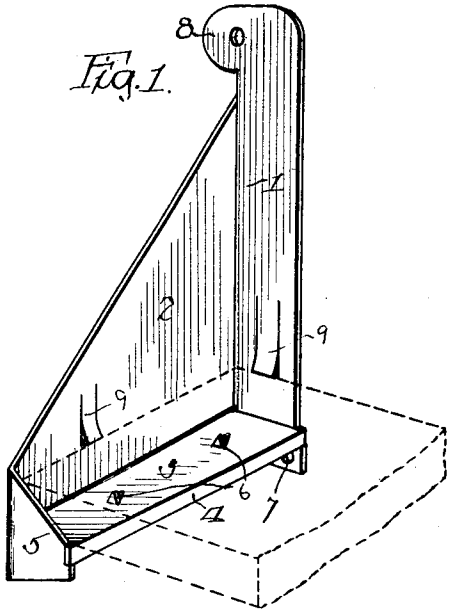


Fig. 5.

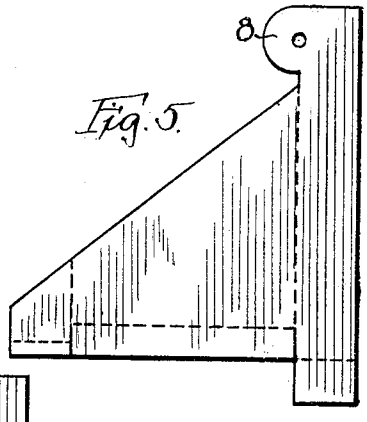
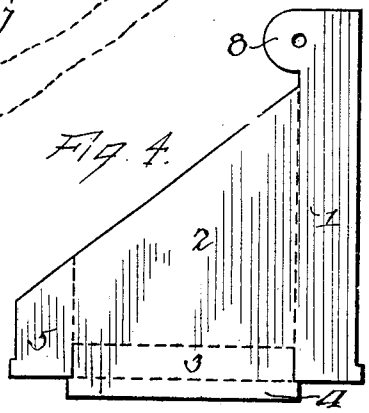


Fig. 4.



Witness:

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SHELF-BRACKET.

1,354,270. Specification of Letters Patent. Patented Sept. 28, 1920.

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To all whom it may concern:

Be it known that I, CHARLES F. WOOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Shelf-Brackets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to brackets for shelves or the like, and in one of its general aspects aims to provide a strong and firm bracket which can easily be manufactured from light sheet metal and in which different parts of the bracket will reinforce and support each other. In certain other aspects, it aims to provide a bracket which will exert only a comparatively negligible outward pull on the nail or screw supporting the same, which will also afford an end for the shelf, which will automatically interlock with the shelf to prevent a disengagement of the shelf from the bracket, and which will prevent a tilting of the shelf on the bracket even if the shelf is wider than the bracket. Furthermore, my invention aims to provide a bracket having all parts formed from a single blank, and having the supporting ear so disposed as to minimize strains tending to twist the bracket, and to provide simple means for interlocking the parts in their operative positions without the use of rivets or other auxiliary fastening members. Still further objects will appear from the following specification and from the accompanying drawings in which—

Figure 1 is a perspective view of a bracket embodying my invention and having the free edge of the shelf supported at both ends by shoulders on other portions of the bracket.

Fig. 2 is a similar perspective view showing an embodiment in which the ends of the shelf-supporting ledge are supported by upturned ends of adjacent parts of the bracket.

Fig. 3 is a similar perspective view showing an embodiment of my invention in which the shelf-supporting ledge is formed from metal previously bent back upon itself and is supported only along one end by the upturned tip of an adjacent portion of the bracket.

Fig. 4 shows the blank from which the bracket of Fig. 1 is formed.

Fig. 5 shows the blank from which the bracket of Fig. 2 is formed.

Generally speaking, the blank for each of the illustrated embodiments consists of a relatively narrow hanger strip 1 having a perforated ear 8 its upper end to receive the nail or screw from which the bracket is to be suspended.

Contiguous to this portion 1 at one side thereof is a tapering web 2 adapted to serve as an end for the shelf supported by the bracket. Adjacent to the lower end of this part 2, but severed from the hanger portion 1 in the blank, is a ledge portion 3 adapted to support the shelf in the finished bracket and having at its lower edge a flanged portion 4 adapted to extend downwardly in the finished bracket. This flange 4 is wider than the ledge portion 3, thereby affording projecting ends, one of which ends is adapted to engage a lateral shoulder on the hanger strip 1, while the other is adapted to engage a companion shoulder on a tip 5 which forms a continuation of the end portion 2 in the blank. When the bracket is bent up from this blank into the form of Fig. 1, the end 2 serves as a web for supporting both the adjacent part of the ledge 3 and the tip portion 5.

Where the bracket of my invention is designed for a particular width of shelf, the forward edge of the shelf board or ledge may be engaged by the tip 5 of the bracket to prevent the board from sliding away from the wall along the ledge 3. This sliding may be further prevented by prongs 6 bent upward from the ledge and adapted to anchor themselves in the shelf board to keep the latter from sliding off the ledge. However, my bracket need not be limited in use to any particular width of shelf, as a board wider than the length of the ledge 3 can readily be used by simply making a saw-cut at the proper place for receiving the tip portion 5, after the manner shown in Fig. 2. With such wide shelf boards and to some extent also with narrower boards, a loading of the shelf near its forward edge might tend to tip the rear edge of the shelf upwardly. To prevent this, and also to keep the board interlocked with prongs 6, I desirably bend spring fingers 9 from the parts 1 and 2 as shown in the drawings, so that these will overhang the top of the board and hold the latter down upon the ledge 3. By thus interlocking the shelf

board with the bracket, I can readily cause the board to engage the ledge close to the web 2, thus reducing the tendency to bend this ledge downward and hence effectively stiffening the bracket. Moreover, this interlocking of a board at both ends with brackets constructed according to my invention, but respectively right and left-handed as to the direction in which the ledge 3 projects from the web, affords a shaft and bracket combination of such rigidity as to avoid a tendency of the brackets to swing about the nails or screws supporting the same. However, I may provide lower apertures 7 as shown in the drawings, through which nails or tacks can be driven for positively preventing a swinging of each bracket about its support. In each case, it will be evident from the drawings that the shaft is mounted at a considerable distance below the screw or nail supporting the bracket, so that the weight on the shelf tends to swing the bracket toward the wall, instead of tending to swing it outwardly as is the case with brackets as usually disposed entirely below the shelves. To insure a direct downward pull from the supporting nail or screw, I also desirably form the supporting ear so that its perforation will be in vertical alinement with the web 2. With the bracket thus arranged, it will be evident that the ledge 3 is supported by the web 2 at its juncture with the latter and is also supported against bending downward about this juncture by the engagement of the projecting tips of the flange 3 with the said shoulders on the portions 1 and 5. Consequently, the resulting bracket, although quite simple in construction, is able to sustain a considerable weight on the ledge 3 even though the bracket was made of relatively light sheet material. Moreover, the strain on the supporting nail is almost entirely a shearing strain, and in which the tendency to pull out this nail is so slight that even a relatively short nail or tack is ordinarily ample for supporting a considerable load.

Instead of equipping the lower end of the hanger strip 1 and the tip portion 5 with shoulders for coöperating in rigidly supporting the ledge 3, I may bend the lower ends of the parts 1 and 5 back upon themselves and rest the ledge 3 upon these for its entire width, as shown in Fig. 2. Or, where the bracket is to be used only for supporting relatively light weights, both the tip portion 5 and the outer support for the ledge of the bracket may be omitted entirely, as in Fig. 3. In any case, the abutting parts of the bent up bracket may be welded or otherwise secured immovably to each other if desired.

However, while I have pictured and described a bracket of my invention in embodiments designed for use with a wooden shelf board and as including both a web of a certain shape and an ear of certain location, I do not wish to be limited to these or other details of the construction and arrangement here disclosed, it being obvious that these might be modified in many ways without departing from the spirit of the appended claims.

I claim as my invention:

1. A bracket formed from sheet material and including a vertical web, a hanger strip adjacent to one edge thereof and disposed at right angles to the web, and a horizontal ledge adjacent to the web, the hanger strip having a portion engaged by the ledge for supporting the latter.

2. A bracket formed from sheet material and including a vertical web, a hanger strip adjacent to one edge thereof and disposed at right angles to the web, and a horizontal ledge adjacent to the web, both the hanger strip and the web having portions engaging the ledge for supporting the latter.

3. A bracket formed from sheet material and including a vertical web, a hanger strip adjacent to one edge thereof and disposed at right angles to the web, a tip bent from the other edge of the web, and a horizontal ledge adjacent to the web and supported at its ends respectively by portions of the hanger strip and the said tip.

4. A shelf bracket formed from sheet metal and including a hanger strip, a web integral therewith and at right angles thereto, a ledge extending at right angles to both the aforesaid, and a spring tongue formed from the hanger strip and presenting a tip spaced from the ledge by substantially the thickness of the shelf.

5. A shelf bracket formed from sheet metal and including a hanger strip, a web integral therewith and at right angles thereto, a ledge extending at right angles to both the aforesaid, and a spring tongue formed from the web and presenting a tip spaced from the ledge by substantially the thickness of the shelf.

6. A sheet metal bracket for a wooden shelf, including in rigid formation a hanger strip, a web at right angles thereto and a ledge bent from metal forming a continuation of one of the aforesaid and disposed at right angles to both of the aforesaid, and a sharp prong integral with the ledge and spaced from the edges thereof and adapted to enter the shelf board to prevent the latter from sliding off the ledge.

7. A sheet metal bracket for a wooden shelf, including in rigid formation a hanger strip, a web at right angles thereto and a ledge bent from metal forming a continuation of one of the aforesaid and disposed at right angles to both of the aforesaid, in combination with tongues formed re-

spectively from the hanger strip and the web, the said tongues presenting tips spaced from the ledge by a distance substantially equal to the thickness of the shelf board.

8. A sheet metal blank for a shelf bracket, including a tapering portion and two parts contiguous thereto and adapted to be bent at right angles thereto along lines at right angles to each other, one of the said two parts having a perforated ear adapted to form a hanger for the bracket.

9. A sheet metal bracket comprising a hanger strip terminating at its upper end in a perforated ear, a vertical web disposed at right angles to this strip along one edge of the latter, and a ledge extending at right angles to both the web and the strip supported by both of the latter, the ear overhanging the plane of the said web and the perforation in the ear being in alinement with the said web.

Signed at Chicago, April 24th, 1919.

CHARLES F. WOOD.