(57) Abrégé/Abstract:
The support bracket is used for supporting shelves or the like. Once attached to a standard, the support bracket has a spike configured and disposed to protrude through an open rear side of the standard. The spike engages into the wall to keep the bracket and standard from being displaced along the surface of the wall.
Abstract

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SUPPORT BRACKET AND
KIT OF PARTS FOR A SUPPORT ASSEMBLY

FIELD
The present improvements relate generally to the field of support brackets for supporting assemblies used with shelves or the like.

SUMMARY
In accordance with one aspect, there is provided a support bracket for use with a standard having a front bracket mounting side and an open rear side, the support bracket comprising: a support portion; and a mounting portion made integral with the support portion, the mounting portion being configured and disposed to attach the support bracket to the front bracket mounting side of the standard, the mounting portion having a spike extending oppositely from the support portion, the spike being configured and disposed to protrude from the open rear side of the standard and penetrate into a wall when the support bracket is attached to the standard.

In accordance with another aspect, there is provided a kit of parts for assembling a support assembly, the kit comprising at least two standards each having a front bracket mounting side and an open rear side, and at least two support brackets, each support bracket having a support portion and a mounting portion made integral with the support portion, the mounting portion being configured and disposed to attach the support bracket to the front bracket mounting side of a respective standard, the mounting portion having a spike extending oppositely from the support portion, the spikes being configured and disposed to protrude from the open rear side of the respective standard and penetrate into a wall when the support brackets are attached to the respective standards.

In accordance with another aspect, there is provided a support bracket for use with a standard having a front bracket mounting side and an open rear side, the support bracket comprising a support portion, a mounting portion made integral with the support portion and having a spike extending therefrom, the mounting portion being configured and disposed to attach the support bracket to the front bracket mounting side of the standard into an attached position in which the spike protrudes from the open rear side of the standard.
DESCRIPTION OF THE FIGURES

Further features and advantages of the present invention will become apparent from the following detailed description, taken in combination with the appended figures, in which:

Fig. 1A is a perspective view of an example of an improved support assembly including a fixture, a standard, and a support bracket;

Fig. 1B is a side elevation view of the support assembly of Fig. 1A;

Fig. 2A is a side elevation view of the support bracket of Fig. 1A;

Fig. 2B is a top plan view of the support bracket of Fig. 1A;

Fig. 3A is a rear view of the standard of Fig. 1A;

Fig. 3B is a bottom plan view of the standard of Fig. 1A;

Fig. 3C is a rear view of a blank for forming the standard of Fig. 1A;

Fig. 4A is a perspective view of the support bracket and standard of Fig. 1A prior to assembly;

Fig. 4B is an enlarged view of a portion of Fig. 4A;

Fig. 5A is a perspective view, partly sectioned, of the support bracket and standard of Fig. 1A shown partly assembled;

Fig. 5B is an enlarged view of a portion of Fig. 5A;

Fig. 6A is a side cross-sectional view of the support bracket and standard of Fig. 1A shown assembled; and

Fig. 6B is an enlarged view of a portion of Fig. 6A.

DETAILED DESCRIPTION

Fig. 1 illustrates an example of an improved support assembly 10. The support assembly 10 generally includes a fixture 12, a standard 14 and a support bracket 16. Generally, at least one
fixture, two standards and two support brackets are used to support a shelf or the like (not shown), which is then laid on the upper edge of the two support brackets.

In the illustrated support assembly 10, the fixture 12 is in the form of an elongated strip and has a somewhat V-shaped cross section defining a first flange 20 and a second flange 22. The first flange 20 is secured to a wall 23 with fasteners 24, for instance screws or nails. The second flange 22 defines a slanted lip 22, which is upwardly oriented when the fixture 12 is secured to the wall 23. The standard 14 has a corresponding slanted notch 30 in an upper end 32 and can be suspended to the fixture 12 when the slanted lip 22 is engaged into the slanted notch 30.

The support bracket 16 has two main parts, namely a support portion 40 having an upper edge 42 adapted to receive the bottom of the shelf (not shown), and a mounting portion 44 designed to be removably attachable to the standard 14. The support portion 40 gradually tapers towards a narrower front end 46.

As can be appreciated, the support bracket 16 further has a spike 48 extending from the mounting portion 44 opposite from the support portion 40. The function and purpose of this spike 48 will be explained hereafter.

Referring now to Fig. 2, the support bracket 16 is shown in greater detail. The mounting portion 44 includes a first 50 and a second 52 mounting member designed to engage respective slots provided on the front of the standard 14, as described further below. The first mounting member 50 has a hook 54 to longitudinally engage one of the slots of the standard 14. The first mounting member 50 also includes the spike 48. When assembled to the standard, the first mounting member 50 is an upper mounting member, and the second mounting member is a lower mounting member.

As shown in Figs. 3A and 3B, the standard 14 can be manufactured from a metallic blank 60 which is shown unfolded in Fig. 3C. Likewise, the support bracket 16 (Fig. 1A) can be made from a flat piece of metal. The standard 14 has a left flange 62 and a right flange 64 and further has a front bracket mounting side 66 and an open rear side 68 (Fig. 3B). The front bracket mounting side has a plurality of narrow rectangular slots 70, 71 adapted to receive the first mounting member and the second mounting member of the support bracket 16 (Fig. 2). In the
illustrated embodiment, the slanted notch 30 receiving the slanted lip of the fixture 12 (Fig. 1) includes a left notch 72 and a right notch 74 defined in respective left flange 62 and right flange 64 of the blank 60.

Referring now to Figs. 4 to 6, steps of mounting the support bracket 16 to the standard 14 are illustrated. In Fig. 4, it is shown that the first mounting member 50 of the support bracket 16 is approached to a first slot 70 of the standard 14. In Fig. 5, the first mounting member 50 is engaged within the first slot 70 and the second mounting member 52 is oriented towards a second slot 71. In Fig. 6, both the first and second mounting members 50, 52 are engaged in the first and second slot 70, 71, respectively. Fig. 6 also shows that the spike 48 extends past the open rear side 68 of the standard 14 and protrudes therefrom once the support bracket 16 is in position. The hook 54 of the first mounting member 50 is then engaged into the lower end of the first slot 70. In this case, the support bracket 16 is mounted to the standard 14 first, and then the slanted notch 30 of the standard 14 is engaged on to the slanted lip 22 of the fixture 12 (see Fig. 1) and the support bracket 16 is positioned against the wall 23. Once the support bracket 16 is at the right position, pressure is applied to it and the spike enters the wall 23 to thereafter prevent the support bracket 16 from being displaced laterally and up and down.

As can be appreciated, the illustrated embodiment is only one example of the improvements. The support bracket can be manufactured and sold alone, or in a kit with one or more standards. Typically, two or more combinations of support bracket and standard can be used to support a shelf. Although the support bracket described was flat and made from a metal, various shapes and materials can alternately be used as it will appear to those skilled in the art.

In the illustrated embodiment, the mating engagement between the mounting portion of the support bracket and the front mounting side of the standard was provided by first and second mounting members of the support bracket which engaged the first and second slots of the standard. Many alternate configurations are possible as it will appear to those skilled in the art. For example, only one or more than two mounting members and respective slots can be used. As another example, the support member can include two or more mounting members arranged side by side. Therefore, the corresponding slots of the standard are also arranged side by side. Furthermore, although the spike was described as being part of the first mounting member, it
could be part of the second mounting member instead, or both. Therefore, the support member can include more than one spike.

For the standard, many alternative embodiments are possible. For example, although it was described as being made from a folded blank of metal, various shapes and materials can be used. In the illustrated embodiment, the open rear side of the standard, which allows the spike to extend through to the wall, is completely open between the two flanges. In other embodiments, the open rear side can be partially closed, provided that it has at least an open portion, a slot or a hole through which the spike or spikes can extend into the wall.

Although it was described that the standard was suspended from the fixture using a slanted notch and slanted lip engagement, various alternatives will appear to those skilled in the art, and the standard may otherwise be affixed to the fixture, for instance using screws, nails or the like. Similarly, alternatives to the fixture can be readily devised.

As can be seen therefore, the examples described above and illustrated are intended to be exemplary only. The scope of the invention(s) is intended to be determined solely by the appended claims.
WHAT IS CLAIMED IS:

1. A support bracket for use with a standard having a front bracket mounting side and an open rear side, the support bracket comprising a support portion and a mounting portion made integral with the support portion, the mounting portion being configured and disposed to attach the support bracket to the front bracket mounting side of the standard, the mounting portion having a spike extending oppositely from the support portion, the spike being configured and disposed to protrude from the open rear side of the standard and penetrate into a wall when the support bracket is attached to the standard.

2. The support bracket of claim 1 wherein the support bracket is flat and made of sheet metal.

3. The support bracket of claim 1 or 2 wherein the support bracket has a first mounting member and a second mounting member designed to engage respective slots defined in the front bracket mounting side of the standard.

4. The support bracket of claim 3 wherein the first mounting member is an upper mounting member and also has a hook designed to engage the front bracket mounting side of the standard.

5. The support bracket of claim 4 wherein the spike is an extension to the upper mounting member.

6. The support bracket of claim 3 or 4 wherein the spike is an extension to one of the first and the second mounting members.

7. A kit of parts for assembling a support assembly, the kit comprising at least two standards each having a front bracket mounting side and an open rear side, and at least two support brackets, each support bracket having a support portion and a mounting portion made integral with the support portion, the mounting portion being configured and disposed to attach the support bracket to the front bracket mounting side of a respective standard, the mounting portion having a spike extending oppositely from the support portion, the spikes being configured and disposed to protrude from the open rear side of the respective standard and penetrate into a wall when the support brackets are attached to the respective standards.
8. The kit of parts of claim 7 wherein the support brackets are flat and made of sheet metal.

9. The kit of parts of claim 7 or 8 wherein the standards are made from sheet metal, and have a left flange and a right flange folded from a blank on opposite sides of the front bracket mounting side.

10. The kit of parts of any one of claims 7 to 9 further comprising a fixture configured and disposed for the standards to be suspended therefrom.

11. The kit of parts of claim 10 wherein the fixture has an upwardly slanted lip and the standards have a mating slanted notch receiving the upwardly slanted lip when the standards are suspended from the fixture.

12. The kit of parts of any one of claims 7 to 11 wherein the standards have a first slot and a second slot in the front bracket mounting side, and the support bracket has a first mounting member and a second mounting member engaging the first slot and second slot, respectively, when the brackets are attached to the standards.

13. The kit of parts of claim 12 wherein the first mounting member is an upper mounting member and also has a hook designed to engage the front bracket mounting side of the standard.

14. The kit of parts of claim 13 wherein the spike is an extension to the upper mounting member.

15. The kit of parts of claim 12 or 13 wherein the spike is an extension to one of the first and the second mounting members.

16. A support bracket for use with a standard having a front bracket mounting side and an open rear side, the support bracket comprising a support portion, a mounting portion made integral with the support portion and having a spike extending therefrom, the mounting portion being configured and disposed to attach the support bracket to the front bracket mounting side of the standard into an attached position in which the spike protrudes from the open rear side of the standard.

17. The support bracket of claim 16 wherein the support bracket is flat and made of sheet metal.
18. The support bracket of claim 16 or 17 wherein the support bracket has a first mounting member and a second mounting member designed to engage respective slots defined in the front bracket mounting side of the standard.

19. The support bracket of claim 18 wherein the first mounting member is an upper mounting member and also has a hook designed to engage the front bracket mounting side of the standard.

20. The support bracket of claim 18 wherein the spike is an extension to one of the first and the second mounting members.