Sept. 9, 1924. 1,508,215

O. J. BYDALL

SUPPORT DEVICE FOR SPOUTING

Filed Nov. 6, 1922 2 Sheets-Sheet 1

Fig. 1.

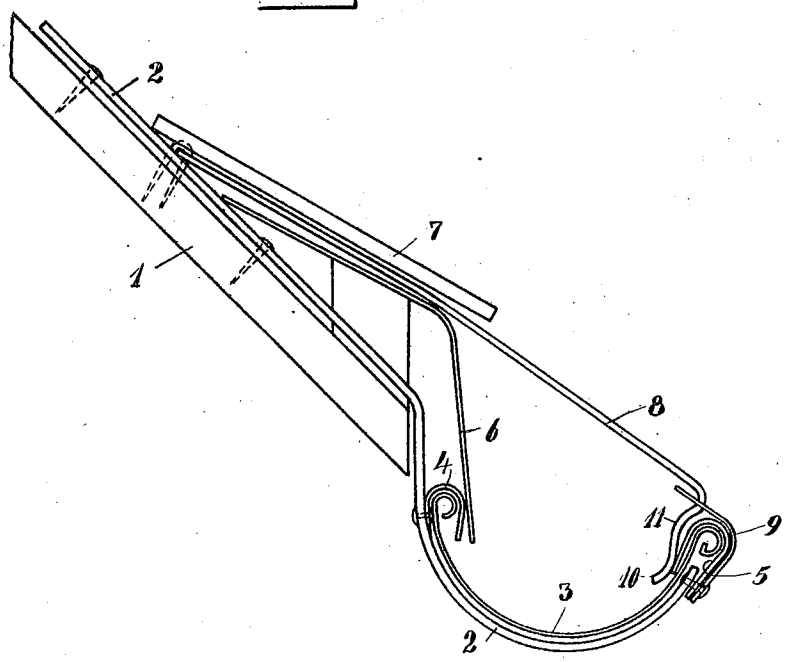
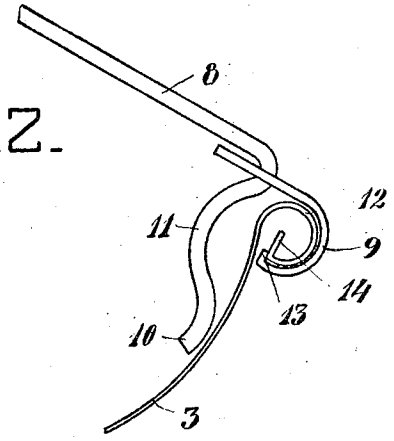



Fig. 2.




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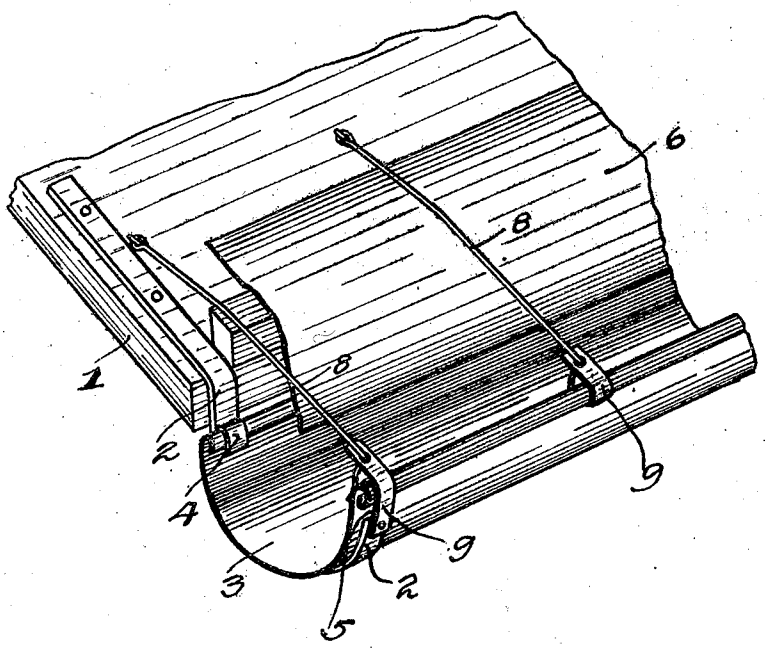



FIG. 3.

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# UNITED STATES PATENT OFFICE.

OTTO JOHANNESEN BYDALL, OF CHRISTIANIA, NORWAY.

## SUPPORT DEVICE FOR SPOUTING.

Application filed November 6, 1922. Serial No. 599,392.

*To all whom it may concern:*

Be it known that I, OTTO JOHANNESEN BYDALL, a citizen of Norway, residing at Bredgaten 22, Christiania, have invented certain new and useful Improvements in Support Devices for Spouting, of which the following is a specification.

The present invention relates to an eaves trough hanger consisting of supporting hooks and over-straps, the straps being detachably connected to the hooks so that the trough can be easily removed for repairs.

Heretofore in such trough hangers or supporting devices the hook has been made with its outer end in the form of a bent over spring clip provided with a recess adapted to be engaged by the outer end of the strap when such outer end is moved horizontally into engagement with the recess, the rear end of the strap being detachably hooked into a recess or opening in the rear portion of the hook. It has also been proposed to bolt the front end of the strap to the bent over end of the hook.

The present invention comprises an eaves trough hanger consisting of a hook in which the trough is held by a detachable strap, characterized in the strap being provided at its outer end with a downwardly extending angular portion forming a self-retaining catch adapted to pass through and be held in an aperture provided in an intermediate link portion extending from the outer edge of the hook.

The intermediate link portion of the hook may be of thinner material than the hook and connected thereto in any suitable manner.

The invention is shown in the accompanying drawing, in which:—

Fig. 1 is an elevational view showing the support strap fastened to a hook.

Fig. 2 is an enlarged fragmentary elevational view showing a modified form of said strap fastened directly to the trough.

Fig. 3 is a perspective view of a trough showing straps in connection with a hook and with the trough.

To the roof 1 the hook 2 is fastened in the usual manner by means of nails or the like, and the trough 3 is kept on its place in the hook 2 by means of clips 4 and 5, which are riveted to the hook 2 and catch over the inner and the outer edges of the trough 3; 6 denotes the apron, which projects into the trough and 7 denotes the lowermost row of tiles.

The support strap 8 known per se is connected to the hook 2 by means of an intermediate link 9. This may suitably consist of plate iron and be fastened by means of the same rivet as the clip 5. The said link is bent over the edge of the trough and is formed with an aperture corresponding to the cross section of the support strap 8, into which aperture the bent end 10 of the support 8 is placed. In order to prevent a sliding of the link 9 on the angular part 10, the same is formed with a hump 11 bent upward from the rim of the trough. When the trough 3 is to be removed the support strap 8 is bent upward, so that its angular part 10 may be separated from the link 9, whereupon said link and the clip 5 are bent backward after which the trough may be removed.

As shown in the modified form, Fig. 2, when it is desired to use more straps than hooks the link 9 is fastened directly to the trough 3. In this case the link 9 is bent round the beaded rim 12 of the trough and catches by an angular part 13 with the edge of the beaded rim or over a radial flange 14 arranged on the same.

When the trough is loaded with snow the outer rim of the same will be pressed downward, which will effect that the link 9 is drawn outward. This will again exert a pull on the strap 8 and try to stretch the angular part 10. This part 10 will thereby be pressed against the clip 5, whereby a still more reliable hold on the trough will be obtained. When a pull is exerted on the intermediate link 9 which is applied directly to the beaded rim the angular part 10 will press against the trough and tend to bend the same, so that its outer rim is held up.

Having thus fully described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. A device of the character described including a trough, a link bent over the outer edge of the trough and having one end portion apertured and extending slightly into the trough and a retaining strap having one end adapted to be secured to a roof and the opposite end bent angularly and engaged through the apertured link and formed between its point of engagement with the link and its free terminal with a retaining hump,

substantially as and for the purposes set forth.

2. A device of the character described including a roof supported hook, a trough arranged in the hook, means on the hook for retaining the trough, an angle link having one end secured to the hook and bent over the outer edge of the trough and its free terminal portion provided with an aperture and a retaining strap having one end secured to the roof and its opposite end bent at an angle and engaged through the apertured link, the terminal of the angular bent end bearing against the inner surface of the outer side of the trough to exert a clamping action thereon and the angular bent end being also formed with a retaining hump to prevent accidental disengaging of the angular bent end from the link, substantially as and for the purposes set forth.

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

OTTO JOHANNESEN BYDALL.

Witnesses:

EDWARD JOHNSON,

DAGNY SZVERSEN.