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GUTTER MOUNTING DEVICE

Filed March 31, 1938

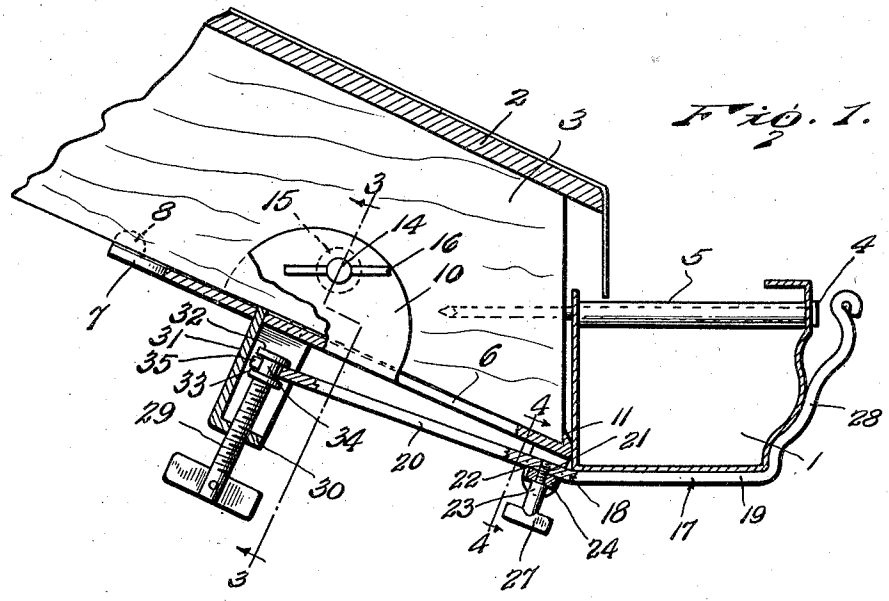


Fig. 1.

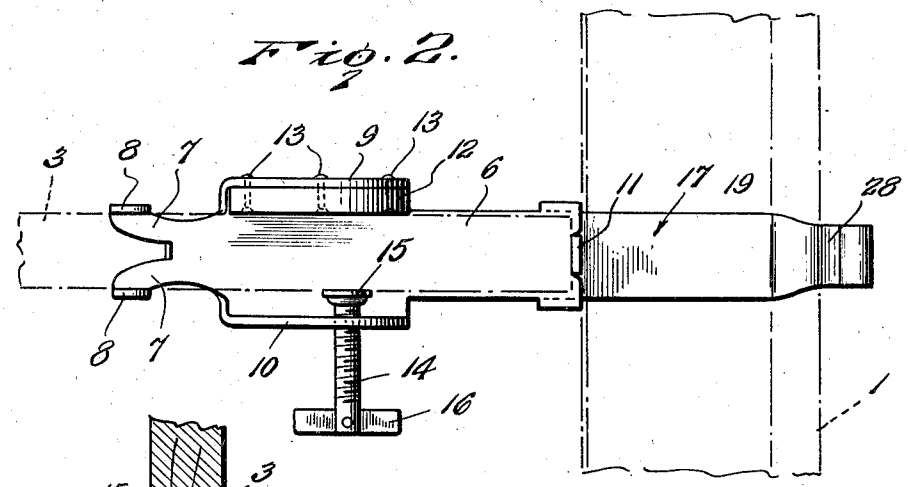


Fig. 2.

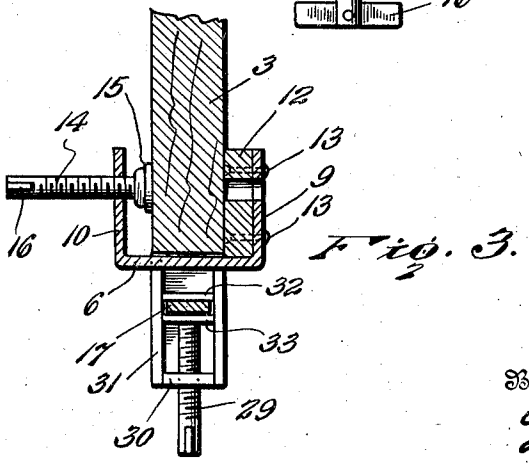


Fig. 3.

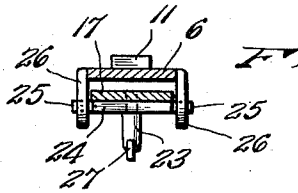


Fig. 4.

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GUTTER MOUNTING DEVICE

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5 Claims. (Cl. 248—48.2)

This invention relates to a gutter mounting device and more particularly to a device by use of a number of which a gutter may be mounted along a roof and kept thoroughly supported while permanent fasteners for the gutter are applied.

When a gutter is installed, the sections forming the gutter are soldered or otherwise secured together upon the ground and the gutter then lifted and held in place against ends of the roofing beam by the workman and his helper and securing nails then driven into place. This is a difficult job as the gutter must be disposed at a certain incline in order that water will run through it and the gutter and nail or spike must be held with one hand while a hammer for driving the nail into the roofing beam is held with the other hand.

It is, therefore, one object of the invention to provide a device which can be temporarily applied to a roofing beam with a portion extending under the gutter and thus permit the gutter to be supported in its proper position and allow the workmen to have free use of both hands for holding a nail and using a hammer to drive the nail into place.

It is another object of the invention to provide a device of this character having a gutter supporting arm which is mounted for vertical swinging adjustment. It will thus be seen that after a number of the devices have been applied to the roofing beam with their arms extending outwardly under gutters, the arms may be adjusted until the gutter is disposed at the proper incline and the gutter will then be firmly supported at the desired incline and prevented from moving out of its proper position during driving of the securing nails or spikes into the roof.

It is another object of the invention to so mount the arm that, while it will be prevented from accidentally slipping out of engagement with a fulcrum, it may be easily detached from the fulcrum and entirely removed from the body portion of the device. By this arrangement the arm may be removed from the gutter while the clamp or body portion of the device is still applied to the roofing means if so desired and in addition an arm which is not of the proper size or configuration to accommodate itself to a particular type of gutter may be readily removed and another of the proper shape or size substituted in its place.

Another object of the invention is to so form the body portion of the device that it may be easily and quickly applied to a roofing beam in the proper position thereon and firmly but detachably secure it to the roofing beam.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a view showing the improved gutter support partially in side elevation and partially in section and applied to a roofing beam in supporting relation to a gutter shown in section,

Figure 2 is a top plan view of the improved gutter supporting device,

Figure 3 is a sectional view taken along the line 3—3 of Figure 1, and

Figure 4 is a fragmentary sectional view taken along the line 4—4 of Figure 1.

This improved gutter supporting device is used for temporarily supporting a gutter 1 in its proper position along a roof which is indicated in general by the numeral 2, and from an inspection of Figure 1, it will be seen that, while the gutter is supported in its proper position by a suitable number of the improved supports, it is to be secured in place against ends of the roofing beam 3 by a suitable number of large nails 4 which are passed transversely through walls of the gutter and driven into the roofing beam. A sleeve 5 is provided for each nail 4 and is of such length that it extends transversely of the gutter for the full width thereof between the inner and outer walls of the gutter. Therefore, when the nails are driven tightly into place, the sleeves will constitute spacers and prevent the outer wall of the gutter from being distorted by driving the nails too far into the roofing beam. The support by means of which the gutter is supported in its proper position against ends of the roofing beam are of a duplicate construction and of such construction that they may be temporarily applied to the roofing beams and firmly held in place but readily detachable after the nails have been driven into the roofing beams.

The body portion 6 of the supporting device is formed of metal which may be sheet metal of sufficient thickness to impart the necessary strength to this body or clamp. The body portion or strip is of approximately the same width as the thickness of a roofing beam and the inner end portion of the strip is cut longitudinally to provide a pair of arms 7 which extend longitudinally of the body and are provided with upturned side portions forming small tongues or flanges 8 for engaging opposite side faces of the roofing beam to which the device is applied. Intermediate its length the body or strip 6 is formed with side wings 9 and 10 which are bent to extend upwardly therefrom at opposite sides of the roofing beam, as shown in Figure 3. Therefore, the body portion of the support may be disposed in

straddling relation to the roofing beam with the flanges or tongues 8 overlapping opposite side faces of the roofing beam a short extent and the wings 9 and 10 extending upwardly at opposite sides of the roofing beam an appreciable distance. A tooth or short flange extends upwardly from the outer end of the body or strip 6 and constitutes an abutment for engaging the end face of the roofing beam and since the abutment flange 11 is to be held in engagement with the end face of the roofing beam until the device is firmly secured the support will always be in its proper position when applied. The wing 9 serves as a stationary jaw and has its inner surface covered by a facing 12 which is firmly secured by rivets or equivalent fasteners 13 and is of such thickness that it may have contacting engagement with a side face of the roofing beam along which the device extends. A clamping screw 14 is threaded through an opening formed in the wing 10 and at its inner end carries a swiveled beam engaging disk or head 15 which is brought into contacting engagement with the side face of the roofing beam when the clamping screw is grasped by its turning wings or finger engaging member 16 and turned in a direction to advance the clamping screw and its head 15 toward the roofing beam. When the clamping screw is tightened, the body portion will be firmly held in place along the under face of the roofing beam and when it is desired to remove the support after the nails 4 have been driven into place, it is merely necessary to turn the clamping screw in a releasing direction and the support will be released.

A gutter engaging arm or strip 17 which is formed of strong sheet metal extends longitudinally of the body beneath the same and intermediate its length is bent, as shown at 18, to provide a gutter engaging portion 19 and a shank 20. An unthreaded opening 21 is formed through the shank 20 adjacent the bend 18 to receive the unthreaded portion 22 of a screw 23 which is threaded through a threaded opening formed in a fulcrum bar 24. This fulcrum bar 24 extends transversely of the outer end portion of the body 6 and has pintles 25 at its ends journaled through ears 26 which depend from the body at opposite sides thereof, as shown in Figure 4. In view of the fact that the screw 23 is threaded through the fulcrum bar, it will be removably mounted but will not be liable to accidentally drop out of place. It should also be noted that the location of the screw permits it to be easily grasped by the cross head 27 at its lower end and turned for insertion or removal of the screw. By having the opening in the shank of the gutter engaging arm or strip unthreaded, the screw may be screwed tightly into place with its inner or upper end engaged in the opening and in addition the arm or strip may be shifted upwardly and withdrawn without disturbing the screw if so desired. The outer portion of the strip of metal from which the arm 17 is formed is bent upwardly to provide an arm 28 which extends diagonally from the gutter engaging portion 19 of the strip. This arm 28 has been shown crimped in order to conform to the shape of a gutter having a crimped outer wall, but it is to be understood that it may be straight throughout its length or any shape desired.

In order that the gutter supporting strip or member 17 may be rocked to an adjusted position and support the gutter at a predetermined incline, there has been provided adjustable securing means for the inner end portion of the gutter supporting strip or member. This securing means has a screw or threaded shaft 29 which is threaded through a threaded opening formed in the bottom wall 30 of a shell or housing 31 which extends downwardly from the body 6 below the wings or jaws 9 and 10 and is open along its outer side so that the inner end portion of the shank 20 may extend into this housing, as shown in Figure 1. Upper and lower plates 32 and 33 fit loosely about the unthreaded upper end portion 34 of the screw 29 and the inner end of the shank 20 is slotted, as shown at 35, so that this slotted inner end of the shank may be disposed between the plates 32 and 33 with the unthreaded upper end portion of the screw 29 passing through the slot. The plates 32 and 33 are of the proper dimensions to be snugly received between the walls of the shell or housing 31 and move vertically therein without binding when the screw 29 is turned in a direction to raise or lower the inner end of the shank. It will be readily understood from an inspection of Figure 1 that, when the screw 29 is turned to raise or lower the plates, the gutter supporting strip 17 and its fulcrum bar 24 will be tilted between the depending ears 26 and the gutter engaging portion 17 swung vertically to raise or lower the gutter. Therefore, the gutter may be vertically adjusted by proper adjustment of the screw 29 of the various devices employed to temporarily support the gutter until the gutter extends at the predetermined angle and the gutter will be firmly supported in the set position while the workman and his helper apply the nails 4 and drive them into place. After the nails have all been driven into place, it is merely necessary to release the clamping screw 14 and the supporting device will be easily removable from the roofing beam. In case it is found that the abutment lugs or tongues 11 have prevented the nails 4 from being driven into the roofing beams a sufficient distance to dispose the inner wall of the gutter in close contacting engagement with the end faces of the roofing beams, the nails may then be driven further into the roofing beams and the gutter will be held firmly in place against the roofing beam.

Having thus described the invention, what is claimed as new is:

1. A gutter supporting device comprising a body for extending along the under face of a roofing beam, jaws extending upwardly from said body and spaced from each other transversely thereof for disposition at opposite sides of a roofing beam, a clamping member carried by one jaw for engaging a side face of a roofing beam and firmly clamping the beam between the clamping member and the other jaw, a gutter engaging member extending longitudinally of said body and pivotally mounted with a gutter-supporting portion projecting from the outer end of the body for engaging under a gutter and a shank extending inwardly under the body, and means engaged with the shank for angularly adjusting the gutter engaging member.

2. A gutter supporting device comprising a body, means to secure said body under a roofing beam, a fulcrum pivotally mounted under the outer end portion of said body, a strip extending longitudinally of said body between the body and the fulcrum bar and engaged with the fulcrum bar for pivotal movement therewith, said strip having its outer portion projecting from said body for engaging under a gutter, and adjusting means for said strip carried by said body and engaging the inner portion of the strip.

3. A gutter supporting device comprising an elongated body for extending along the under face of a roofing beam, said body having an upstanding abutment at its outer end for engaging the outer end of a roofing beam and at its inner end being provided with upstanding abutments for engaging opposite side faces of a roofing beam, means carried by said body for detachably securing the body to a roofing beam, a gutter engaging member extending longitudinally of said body with a portion projecting from the outer end thereof for extending under a gutter, and means for angularly adjusting said gutter engaging member.

4. A gutter supporting device comprising a body for extending along the under face of a roofing beam, means for detachably securing said body to the roofing beam, a gutter supporting strip extending longitudinally of said body under the same with a portion projecting outwardly from said body for extending under a gutter, ears depending from said body, a fulcrum bar pivotally carried by said ears and extending between the same under said strip, a screw threaded through said fulcrum bar and projecting upwardly therefrom, said strip being formed with an opening loosely receiving the upwardly projecting portion of said screw, and means carried by said body for engaging the inner end portion of said strip and angularly adjusting the strip.

5. A gutter supporting device comprising a body, means for detachably securing said body under a roofing beam, a strip extending longitudinally of the body under the same with a portion projecting outwardly therefrom for extending under a gutter, a pivotal support for said strip carried by said body, a housing extending downwardly from said body and having an open side facing the outer end thereof, an adjusting screw threaded vertically through the bottom of said housing, and plates loosely mounted upon the upper portion of said screw within the housing and held against turning with the screw by engagement with portions of the housing, the rear end portion of said strip entering said housing through the open side thereof and having its extremity engaged between said plates and formed with a passage through which said screw is loosely engaged.

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