United States Patent [19]

Sweers

[54] ADJUSTABLE DOWNSPOUT EXTENSION ASSEMBLY

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- 137/615; 405/52; 405/121

 [58] Field of Search

 405/120, 121, 52; 137/615, 801; 52/11–16;

285/176

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[11]

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[45] Date of Patent: Aug. 19, 1997

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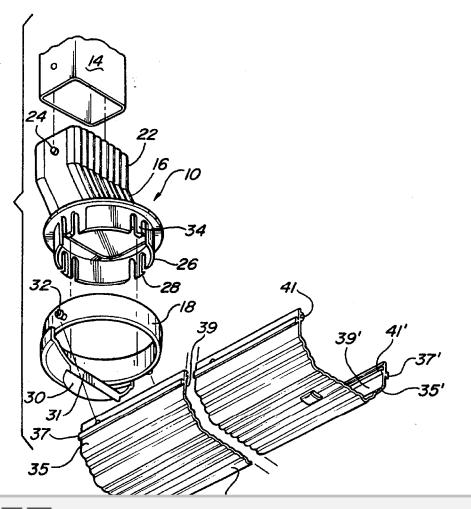
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[57] ABSTRACT

An adjustable extension assembly for a downspout includes a fixed piece attachable to the lowermost end of a downpipe, a rotatable collar attached to the fixed piece, and at least one extension pivotally attached to the rotatable collar. Additional slidable members may be telescopingly attached to the extension. The extension members are channel-shaped in cross-section. The extension may be composed of a polymerized material or a metal. In addition to being easily attached to a downspout, the adjustable extension of the present invention may be selectively adjusted for fitting, for selective water deflection, and for proper lawn maintenance.

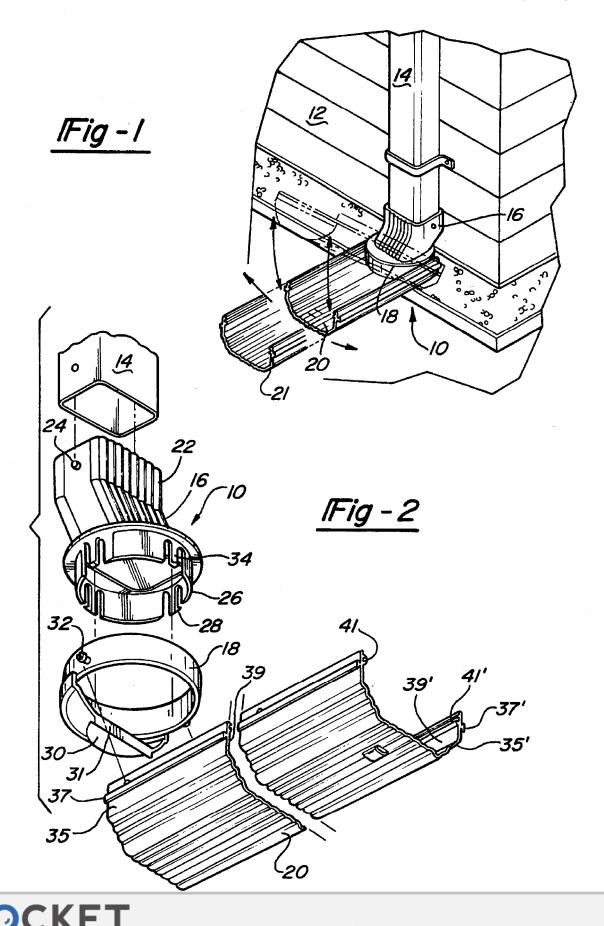
5 Claims, 3 Drawing Sheets



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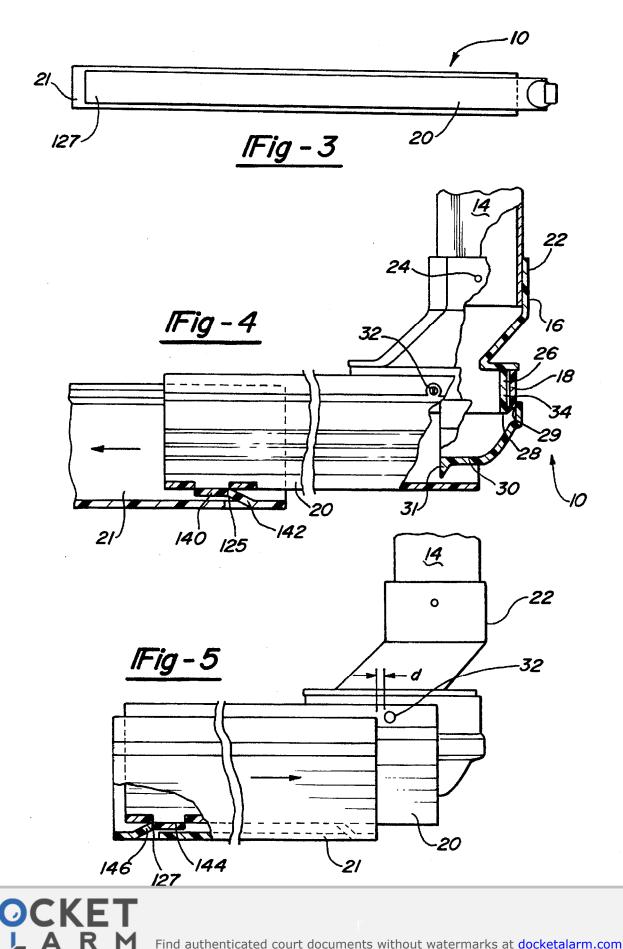


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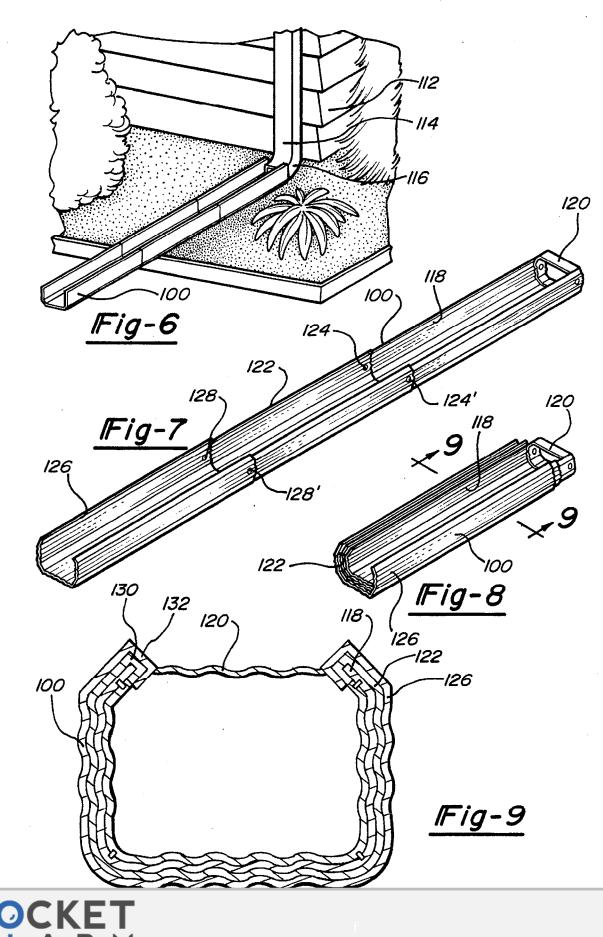


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ADJUSTABLE DOWNSPOUT EXTENSION ASSEMBLY

BACKGROUND OF THE INVENTION

I. Field of the Invention

The present invention relates to an extension assembly for rainwater downspouts. More particularly, the present invention relates to a multi-pieced, telescoping extension assembly that is attachable to the lowermost end of an existing downspout in place of the elbow. The extension is preferably composed of four pieces, including a fixed piece attached to the downspout, a rotatable collar rotatably attached to the fixed piece, a first extension telescopingly attached to the rotatable collar, and a second extension telescopingly 15 attached to the first extension. The extension assembly and the rotatable collar may be used separately or in combination.

II. Description of the Relevant Art

For centuries architects of all types of buildings have ²⁰ devised methods for collecting rainwater as it is deflected from the roof of a house and for directing the rainwater away from the rooftop in an orderly fashion. Early gutter systems were composed of slate, stone or wood.

Later improvements of gutters included the composition ²⁵ of gutters and downspouts from lead or copper. Both of these materials were found to be substantially water-resistant and malleable.

Construction of gutter system components from these materials was accomplished skillfully. In some instances, downspout openings were shaped to resemble animal heads whereby exhausting water flowed from the open mouths of the imitated creature. At other times gutter systems were fashioned to improve aesthetic appeal. 35

In more practical applications, modern day homes incorporate fiberglass, plastic or aluminum gutter and downspout systems. The downspout is fluidly interconnected with a gutter. The gutter itself is at a slight, but substantially unnoticeable incline in the direction toward the interattached downspout, thus preventing the water from collecting in a particular spot.

The most common problem with known gutter systems is that the elbow of the downspout, that part provided at the base of the downspout, only directs water slightly away from 45 the house, perhaps to a length of eight inches. It is this small distance that allows water to be exhausted too close to the footings or basement of the house, thus causing foundation cracking and leaking. Evidence of collecting water may be seen as washed-out regions closely situated to the foundation. Another common problem with known gutter systems is that the elbow is fixed so that the water passing therethrough is directed only in one direction.

In partial response to these problems, downspout extensions of one-pieced construction are known. These are 55 actually three to four foot lengths of straight downspout material that have been added to the elbow. While this known solution solves the immediate problem of water collected too close to the house by directing it a considerable distance away, this fixed, one-pieced extension creates 60 another problem, which is that the extended downspout is a hazard. Not only does the extension make mowing the lawn difficult because the extension must first be removed before the area therebeneath may be cut, but it also provides an thist come which metabolic metabolic instraction children.

provided in only one size. Additionally, as they are preferably easily removed for mowing, they are not well-secured.

In any event, the provision of an extension does not overcome the problem of the singular direction of water travel because of the fixed relation of the elbow and the downpipe. Even with an extension, water may undesirably collect in one spot, or that spot to which the water is directed.

Known approaches to providing downspout extension assemblies have failed to overcome the problems inherent in such assemblies.

SUMMARY OF THE PRESENT INVENTION

The present invention provides a downspout extension assembly which overcomes problems inherent in presentlyknown extensions. The extension comprises a rotatable, multi-sectioned, telescoping extension assembly that is attachable to the lowermost end of the existing downspout. The extension of the present invention may be extended or retracted as may be desired for installation, adjustment, and for lawn mowing. It may also be rotated in one direction or the other to relocate water flow or for maintenance of the surrounding area.

The extension assembly of the present invention comprises two portions which may be used separately or may be used in combination. The first portion is the rotatable collar portion and the second portion the extension portion.

The first portion replaces the elbow of the downspout assembly and comprises a fixed collar adaptor that is attached to the lowermost end of the straight downspout. The fixed collar adaptor has a collar-receiving wall at its lowermost end. A rotatable collar is pivotally mounted to the collar-receiving wall of the fixed collar adaptor. Pivotally attached to the rotatable collar is a gutter extension.

The second portion is a telescoping gutter extension that may be used in combination with the first portion or may be attached directly to the elbow of the downspout assembly. The second portion comprises a first extension, one end of which is fixedly attached to the downspout elbow. Slidably attached to the first extension is a slidable extension. Additional slidable extensions may be telescopingly fitted to the first slidable extension so as to provide a length extendable to approximately nine feet from a retracted size of approximately three feet.

The first extension and the one or more slidable extensions each defines a U-shaped channel in cross-section. This open-topped construction allows for easy cleaning and free water flow.

Both portions of the adjustable downspout extension 50 assembly of the present invention may be composed of a polymerized material such as fiberglass or plastic, or it may be composed of a metal such as aluminum.

According to the design of the present invention, the adjustable downspout extension assembly may be easily installed, easily adjusted to fit, readily retracted for lawn maintenance, and readily moved about to change water flow.

Other advantages and features of the present invention will become more apparent from the following detailed description when read in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be more fully understood by reference to the following detailed description of the preferred embediments when read in conjunction with the

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