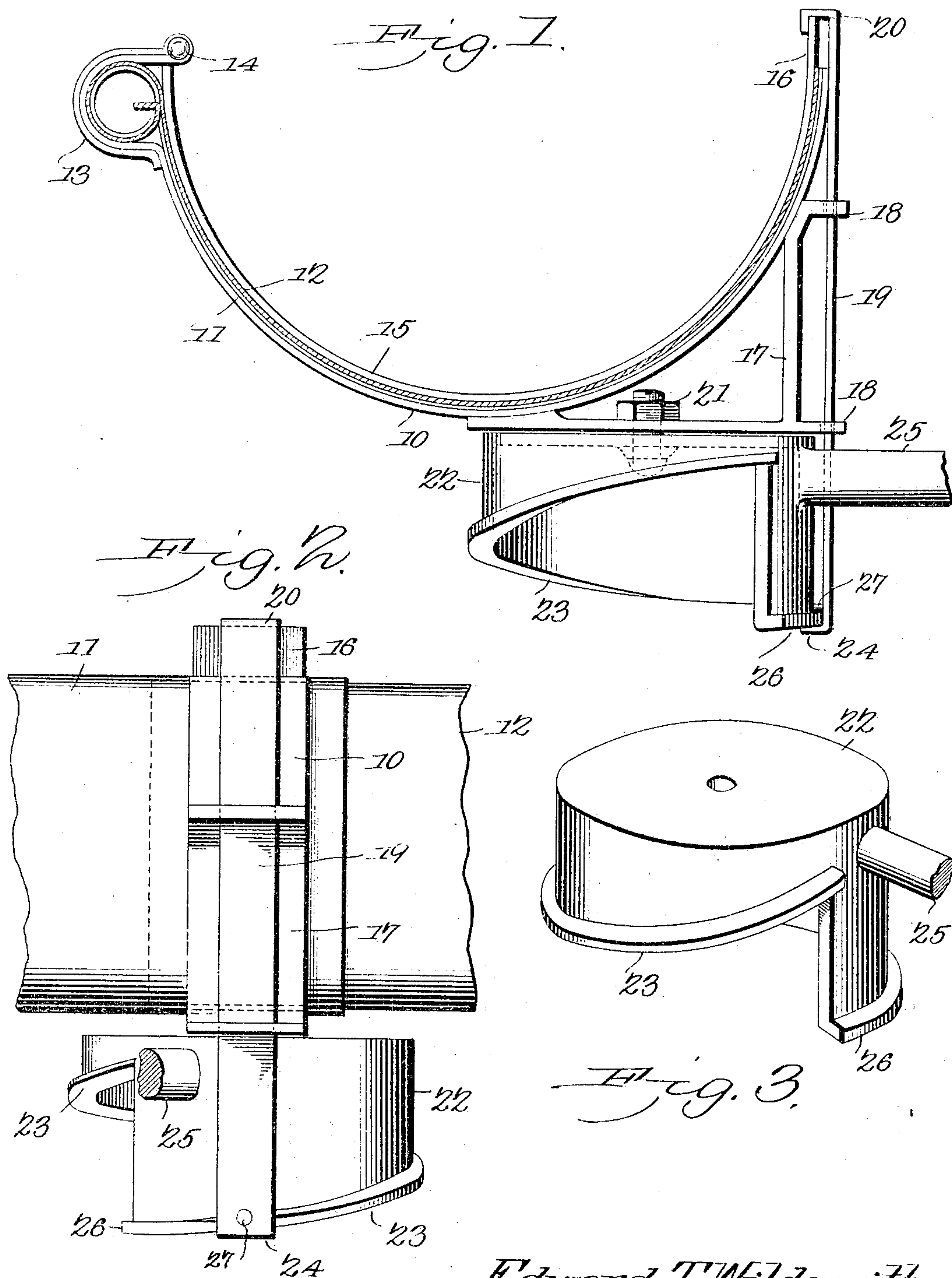


No. 766,087.

PATENTED JULY 26, 1904.

E. T. WILDSMITH.
EAVES TROUGH CLAMP.
APPLICATION FILED APR. 26, 1904.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD TAYLOR WILDSMITH, OF BIRMINGHAM, ALABAMA.

EAVES-TROUGH CLAMP.

SPECIFICATION forming part of Letters Patent No. 766,087, dated July 26, 1904.

Application filed April 26, 1904. Serial No. 205,001. (No model.)

To all whom it may concern:

Be it known that I, EDWARD TAYLOR WILDSMITH, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented a new and useful Eaves-Trough Clamp, of which the following is a specification.

This invention relates to devices adapted for holding structures of various kinds while being soldered or otherwise secured, more particularly for holding the overlapping ends of eaves-troughs or gutters, and has for its object to produce a device of this character inexpensive and simple in construction which may be easily applied and operated and adapted for use either upon the eaves-trough sections while being united upon the ground or in the shop or when being connected after being suspended from the building or in the locality where they are to remain.

With these and other objects in view which will appear as the nature of the invention is better understood the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages, and the right is therefore reserved of making all the changes and modifications which fairly fall within the scope of the invention and the claims made therefor.

In the drawings thus employed, Figure 1 is a side elevation of the device applied. Fig. 2 is a rear elevation of the same. Fig. 3 is a perspective view of the cam member detached.

The improved device consists of a base member 10, preferably of steel and curved to conform to the exterior of the overlapping ends

11 12 of the eaves-trough and with an offset 13 to receive the "beads" of the same. 50

Swinging, as by a pin 14, from the member 10 in advance of the offset 13 is an arm 15, also preferably of steel and curved to conform to the interior of the eaves-trough.

The free end 16 of the member 15 is longer than the contiguous end of the member 10, the object to be hereinafter explained. 55

Attached, as by rivets, to the under side of the member 10 is a bracket 17, preferably of cast-iron or steel and provided with lateral offsets or guides 18, through which a clamp-bar 19 is movably disposed, the upper end of the clamp-bar having a hook 20 for detachable engagement with the free end 16 of the member 15. 60

Mounted for rotation upon the bracket 17, as by clamp-bolt 21, is a cylindrical member 22, having a cam-surface 23 upon its lower or open end with which a hook or offset 24 on the lower end of the clamp-bar 19 engages. 65

The cam-surface 23 is formed with a lateral offset or flange to increase the bearing-surface upon the clamp-bar, and the member 19 is provided with a pin 27, projecting over the flange 26, so that the member 19 is carried in both directions by the action of the cam-cylinder to maintain it always in operative position and prevent looseness of the parts. 70

The member 22 is provided with an operating-handle 25. 75

It will be noted that the incline of the cam-surface 23 decreases toward the "finish" end 26, so that the force of the grip increases as the cam approaches the end of its stroke to correspondingly increase the force exerted upon the bar 19 and the member 15, actuated thereby. By this simple arrangement it will be obvious that if the cam member be rotated rearwardly by its handle 25 the bar 19 will be released and elevated with its hooked end 20 free from the end 16 of the clamp member 15, so that the latter can be turned over laterally on its pivot 14 to permit the insertion of the overlapping portions 11 and 12 of the eaves-trough. Then by folding the member 15 over upon the eaves-trough members 80 85 90 95

and connecting the hook 20 of the bar 19 with the free end 20 and moving the handle member forwardly the member 15 will be firmly compressed upon the members 11 and 12 and said members correspondingly closely compressed and firmly held in position to be soldered, riveted, or otherwise fastened.

The device is light and portable, so that it can be easily carried from place to place for use at any desired point.

One of the important advantages of the lightness and portability of the device is that it can be easily applied to the adjacent ends of the members 11 and 12 when they are in position upon the building or in cramped or confined localities, the soldering being generally done under these conditions from ladders and where only one man can work at a time. With the improved device the workman is free to use both hands for operating the soldering implements, which is of great advantage, as will be obvious.

The device can be adapted to all the various sizes of eaves-troughs and similar structures.

What I claim is—

1. In a device of the class described, a base member, an arm pivoted thereto, a clamping-bar for detachably engaging the free end of said arm, and means carried by said base member for actuating said clamping-bar to cause the pivoted arm to be forcibly compressed upon the structure to be held.

2. In a device of the class described, a base member provided with an offset, an arm pivoted to the base member in advance of said offset, a clamping-bar for detachable engagement with the free end of said arm, and means carried by said base member for engaging said clamping-bar to compress said base member and pivoted arm upon the structure to be held.

3. In a device of the class described, a base member, an arm pivoted thereto, a clamping-bar for detachably engaging the free end of said arm, and a cam member mounted for rotation upon said base member for operative engagement with said clamping-bar.

4. In a device of the class described, a base member for supporting the overlapping ends of a gutter or eaves-trough, an arm pivoted to one end of said base member and conforming to the interior of the eaves-trough, a bracket connected to said base member and provided with a plurality of spaced guides, a clamping-bar movable in said guides and having means for detachable engagement with

the free end of said pivoted arm, and a cam member carried by said bracket for operative engagement with said clamping-bar.

5. In a device of the class described, a base member, an arm pivoted thereto, a clamping-bar for detachably engaging the free end of said arm, a member having a cam-face for operative engagement with said clamping-bar, said cam-face having a decreasing pitch to thereby cause the compressing force of the clamping-bar and pivoted arm to be increased progressively with the movement of the cam member.

6. In a device of the class described, a base member, an arm pivoted thereto, a bracket connected to the base member and provided with a plurality of spaced guides, a clamping-bar movably engaging said guides and having at one end means for detachable engagement with said pivoted arm, and a cylindrical member rotatively mounted upon said bracket and having a cam-surface upon its free end, said cam-surface having a lateral flange for operative engagement with the free end of said clamping-bar.

7. In a device of the class described, a base member, an arm pivoted thereto, a bracket connected to said base member and having spaced lateral guides, a clamping-bar movably engaging said guides and having at one end means for detachable engagement with said pivoted arm, a cylindrical member rotatively mounted upon said bracket and having a cam-surface upon its free end, said cam-surface having a lateral flange for operative engagement with the free end of the clamping-bar.

8. In a device of the class described, a base member, an arm pivoted thereto, a bracket connected to said base member and provided with spaced guides, a cylindrical member mounted for rotation upon said bracket and having a cam-surface upon its free end, said cam-surface having a lateral flange, a clamping-bar slidable in said bracket-guides and having means at one end for detachable engagement with said pivoted arm, the opposite end of said bar being provided with a hook for engagement with the cam-surface of the cylindrical member, and a stop-pin extending from said bar over said lateral flange.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD TAYLOR WILDSMITH.

Witnesses:

ROBT. H. RIDGWAY,
MEYER LEVINE.