No. 891,406. PATENTED JUNE 23, 1908.

G. CASSENS.

EAVES TROUGH.

APPLICATION FILED DEC. 11, 1907.

Fig. 1.

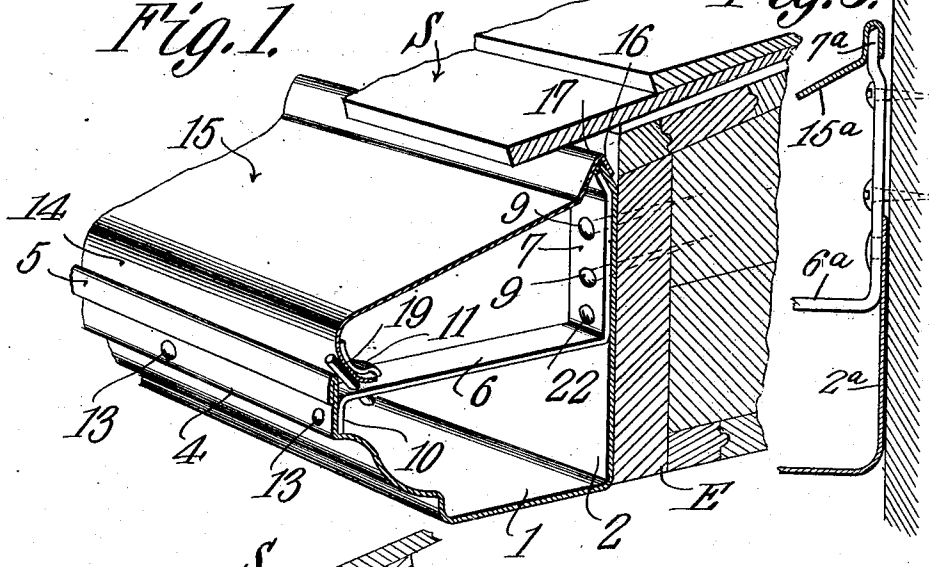


Fig. 5.

Fig. 2.

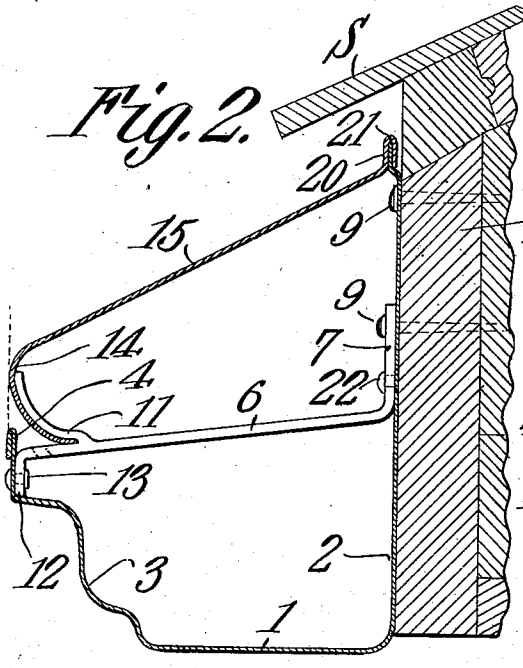


Fig. 3.

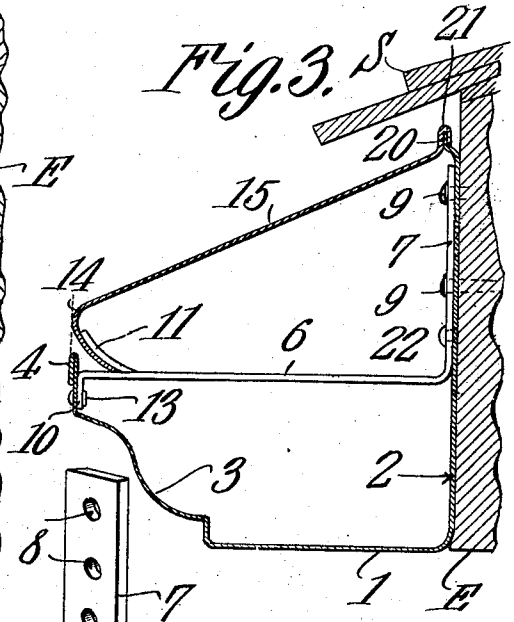
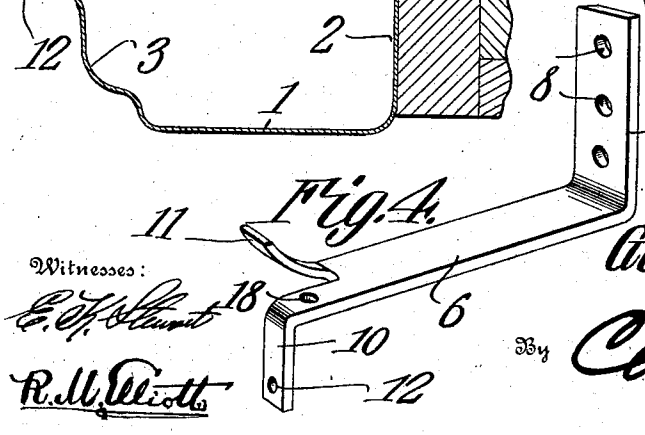


Fig. 4.



Witnesses:

E. F. Stewart

R. M. Elliott

Inventor,

George Cassens.

By C. A. Snow & Co.

Attorneys.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE CASSENS, OF HAMEL, ILLINOIS.

EAVES-TROUGH.

No. 891,406. Specification of Letters Patent. Patented June 23, 1908.

Application filed December 11, 1907. Serial No. 406,055.

To all whom it may concern:

Be it known that I, GEORGE CASSENS, a citizen of the United States, residing at Hamel, in the county of Madison and State of Illinois, have invented a new and useful Eaves-Trough, of which the following is a specification.

This invention relates to eaves troughs.

The object of the invention is in a ready and practical manner to preclude entrance of vegetable matter, such as leaves and twigs, to the trough; to prevent birds from building their nests in the trough; to insure the conservation of practically clean rain water for human consumption; to facilitate cleaning of the trough, should the occasion arise therefor; and generally to improve, simplify, and render more efficient and durable eaves troughs of that character employing shields or covers.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of an eaves trough, as will be hereinafter more fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in perspective of one form of eaves trough embodying the features of the present invention. Fig. 2 is a vertical transverse section through another form of eaves trough. Fig. 3 is a similar view of still another form of eaves trough. Fig. 4 is a perspective detail view of a brace employed in supporting the outer edge of the trough from the eaves of a building, and also for holding, or assisting in holding, the cover or shield in operative position relatively to the trough. Fig. 5 is a detail sectional view showing a slightly modified construction wherein the body terminates at the back below the cover and the brace extends to and interlocks with the cover.

Referring to the drawings, and to Fig. 1 thereof, E designates generally the eaves of a building and S the shingles thereof. These parts may be of the usual or any preferred construction, and, therefore, need no further description.

The trough 1 may be of the ordinary semicircular type, but in the present instance it is preferred to employ one having a flat bottom, a vertical rear wall 2 and an ogee-curved forward wall 3 terminating in a vertical lip 4, the upper edge of which is rebent at 5. This general contour is common to all of the forms herein shown, with slight variations that will be hereinafter referred to.

The rear wall of the trough is secured to the eaves by braces of somewhat peculiar construction, one of each of which is shown in the three figures exhibiting the trough, and in detail in Fig. 4. The brace comprises an approximately horizontally disposed member 6, having at its rear end an upward projecting member 7 disposed at approximately right angles to the member 6 and provided with orifices 8 to receive nails or screws 9 by which to secure it to the eaves, and at its front end with a downward projecting member 10 disposed at approximately right angles to the member 6 and with an angularly disposed forwardly projecting compound curved member 11. The members 10 and 11 are formed by longitudinally incising the brace, and deflecting or bending the arms thus formed to provide the two members 10 and 11. The member 10 is provided with an orifice 12 through which passes a rivet 13 that projects through the lip 4 and is upset.

The member 11 is engaged by the lower incurved edge 14 of the shield or cover 15, which is an imperforate structure, the rear edge of which is formed into an approximately V-shaped lip or cleat 16 that is designed to interlock with the upper edge 17 of the rear wall of the trough which is deflected at an angle to its length for this purpose, as is also the upper end of the member 7 of the brace.

There will be sufficient space provided between the shingles S and the cleat 16 and terminal 17 of the brace to permit the shield readily to be disconnected when it is desired to remove the cover for the purpose of cleansing the trough.

Generally, the hooked connection between the front edge of the cover and the member 11 of the brace will be amply sufficient to hold the parts assembled; but as a matter of additional security, the member 10 of the brace may be provided with an angularly disposed orifice 18 through which will be driven a pin or stud 19 which will bear against the curved portion 14 of the shield, as clearly shown in Fig. 1.

In the form of invention shown in Fig. 2, the rear member 7 of the brace terminates some distance short of the upper edge of the

rear wall of the trough, and, instead of the cleat 20 that connects the shield with the out-turned lip 21 of the trough being angular, it is yoke-shaped. With this difference, the construction of the two forms of eaves troughs are substantially the same.

In the form of the invention shown in Fig. 3, the member 7 of the brace extends nearly to the upper edge of the rear wall of the trough, and the member 11 of the brace is a true curve, instead of a compound curve, as shown in the other figures.

In addition to the nails or screws 9 for holding the brace and the trough assembled with the eaves, the rear wall of the trough and the member 7 of the brace are additionally connected by rivets 22.

In Fig. 5, there is shown another slightly modified arrangement wherein the back 2^a of the body terminates below the plane of the rear edge of the cover 15^a, and the brace 6^a has a vertical extension 7^a at its rear end which extends up to and interlocks with the rear edge of the cover in a manner similar to the interlock of the back with the cover, as indicated in Figs. 2 and 3.

A feature of novelty common to each form shown is the fact that the front wall 14 of the shield is in vertical alinement with the inner side of the lip 4, and this will prevent vegetable matter, such as leaves, twigs, and the like, from passing into the trough, and these will be discharged over the wall 14, while the pure, clean water will follow the shield and be discharged into the trough. This latter construction will insure the conservation of rain water in such form as will best adapt it for human consumption.

It will be seen from the foregoing description, that all the improvements herein defined are simple in character, that they will be thoroughly efficient for the purposes designed, and will, in a practical manner, secure all of the objects stated.

I claim:—

1. The combination with an eaves trough, of a brace secured thereto and provided with an upstanding member, and a shield having a part to be sprung into interlocked engagement with the member.

2. The combination with an eaves trough, of a brace riveted to the front and rear walls thereof and provided at its forward portion with an upstanding member, and a shield adapted to be sprung into interlocked engagement with the member and with the upper edge of the rear wall of the trough.

3. The combination with an eaves trough having a vertical front wall, of a brace riveted to the front and rear walls of the trough and provided at its forward portion with an upstanding member, and a shield or cover adapted to be sprung into interlocked engagement with the member and with the upper edge of the rear wall of the trough and having its front wall arranged in alinement with the like wall of the trough.

4. The combination with an eaves trough, of a brace secured to the front and rear walls thereof and provided at its forward portion with an orifice and with an upstanding member, a shield arranged to interlock with the member and with the rear wall of the trough, and a pin inserted through the orifice to secure the cover in place.

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

GEORGE CASSENS.

Witnesses:
H. E. WOLF,
CHAS. O. WELKER.