

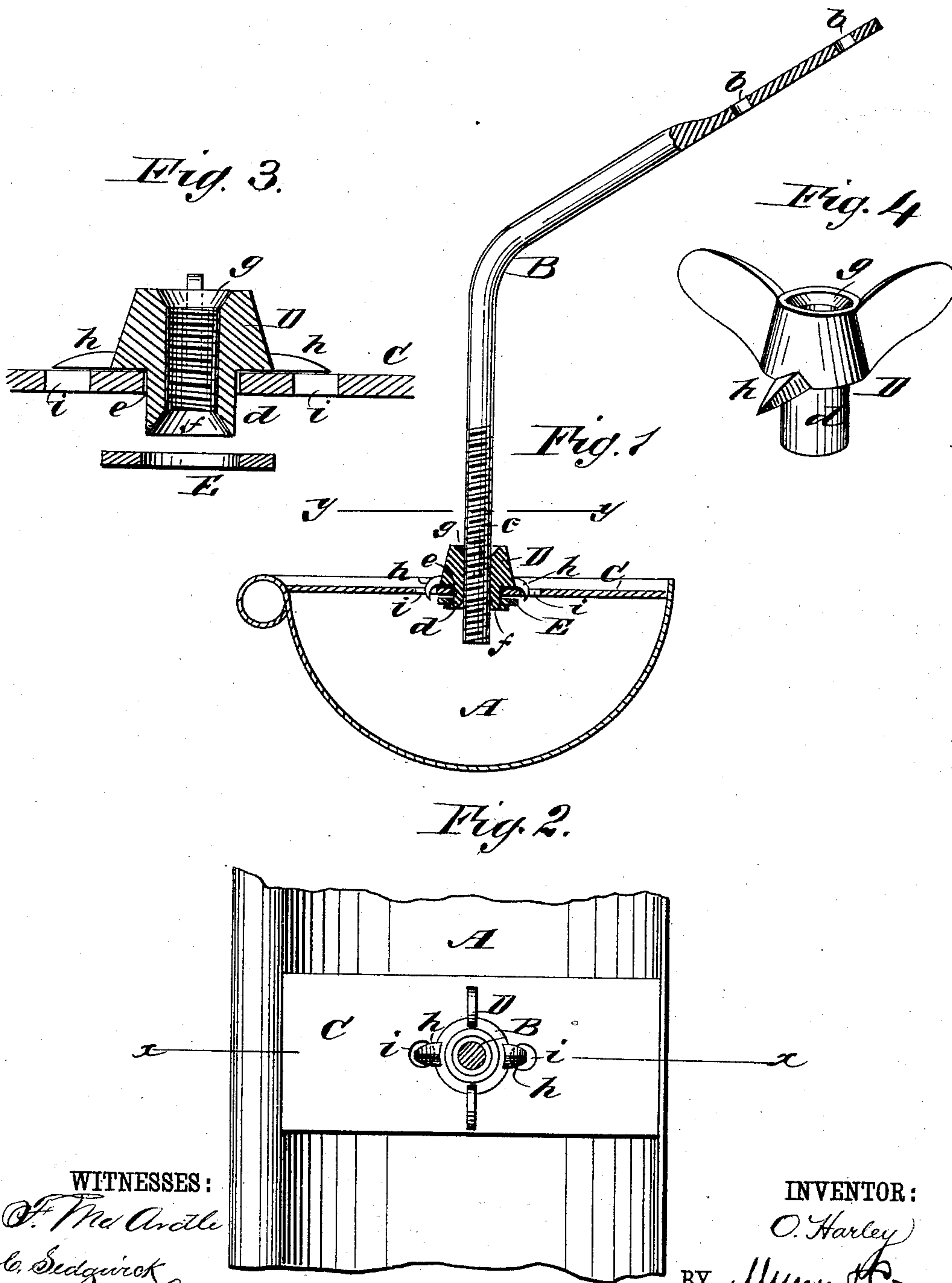
(No Model.)

O. HARLEY.

EAVES TROUGH FASTENING.

No. 327,162.

Patented Sept. 29, 1885.



WITNESSES:
F. McAnally
C. Sedgwick

INVENTOR:
O. Harley
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

OLIN HARLEY, OF SOUTH WHITLEY, INDIANA.

EAVES-TROUGH FASTENING.

SPECIFICATION forming part of Letters Patent No. 327,162, dated September 29, 1885.

Application filed February 26, 1885. (No model.)

To all whom it may concern:

Be it known that I, OLIN HARLEY, of South Whitley, in the county of Whitley and State of Indiana, have invented a certain new and useful Improvement in Eaves-Trough Fastenings, of which the following is a full, clear, and exact description.

This invention relates to fastenings for hanging eaves-troughs to the roofs of buildings in which the trough is secured by any number of bent rod hangers nailed to the roof at their one or bent end, and adjustably attached by a screw-thread and nut fastening at their other or lower end to cross-bars secured on or over the trough. Ordinarily two nuts are used, the one below and the other above each cross-bar, to carry the trough by the screw-threaded rod hanger. This takes time to raise and lower the trough when truing it after it has been hung to the roof. Much difficulty, too, is experienced in adjusting the lower nut, and the latter is apt to drop off, thus detaching the trough from the hanger, besides which there are numerous other objections, all of which and those above mentioned it is the object of my invention to avoid.

The invention consists in a novel construction and combination of parts in an eaves-trough fastener of the above description, whereby a single upper nut, which is readily accessible, serves to secure the hanger to the cross-bar and to provide for adjustment of the trough free from all liability of detachment or loss of the nut, which is in the form of a thumb-screw, and is consequently much more readily turned by the fingers than the usual square one; also which is constructed to lock with the cross-bar to prevent it from turning after the trough has been trued or adjusted.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a vertical transverse section on the line $x x$ in Fig. 2 of an eaves-trough with hanger attached and embodying my invention. Fig. 2 is a horizontal section on the line $y y$ in Fig. 1. Fig. 3 is a vertical section, upon a larger scale, of the thumb-nut, cross-bar, and washer detached used in

the attachment of the eaves-trough to the hanger; and Fig. 4, a view in perspective of the nut detached.

A indicates the trough, and B the bent hanger-rod, provided with any number of holes, b , in its upper bent end for nailing it to the roof, also having a screw-thread, c , on its lower straight end or portion for attaching it to the cross-bar, plate, or strap C of the trough, and for adjusting or truing the trough as required.

D is the carrier and adjusting-nut, which is a thumb one or of thumb-screw form to facilitate the turning of it by the fingers, and which is made to fit the screw-thread c on the rod or hanger B. This nut is constructed with a lower reduced circular extension or neck, d , that passes through a central aperture, e , in the cross-bar C, and projects below said bar so as to admit of a washer, E, being passed from beneath over said neck onto or against the under side of the bar, after which the bottom end of the neck d , that is countersunk, as at f , for the purpose, is riveted, as shown at Fig. 1, over the washer without damaging the nut. Said nut d is also countersunk on top, as at g , to facilitate the entry of the screw end of the rod B. By the entry of the rod through the nut, and riveting the nut on the under side of the washer, as described, the attachment of the trough to the hanger is complete. To prevent the thumb-nut, however, from working up or down, or of being accidentally turned after the trough has been adjusted to its place on the hanger, said nut D is constructed with any number of side lips or wings, h , and the cross-bar C with one or more additional holes, i , outside of its central aperture, so that after the nut has stopped at any desired place in the adjustment of the trough by striking and bending downward one of said wings h to engage with one of the outside holes i in the cross-bar the nut is positively locked.

By using one nut instead of two to attach and adjust the trough to the hanger, and by the arrangement of this single nut on the top side of the cross-bar, not only is the attachment more quickly and easily made, but the truing of the trough, after hanging it to the roof, by raising or lowering it as required, is also much more easily and quickly made; furthermore, the nut being an attachment to the

cross-bar of the trough it will always be in place, and cannot be lost or misplaced, and the trough cannot drop from the hanger, as it is apt to do when a lower as well as an upper detachable nut is used to secure it to the hanger.

Having thus fully described my invention, I claim as new, and desire to secure by Letters Patent—

The combination, with the cross-bar C, of the trough having a central aperture, *e*, and any number of locking holes, *i*, in it, of the upper thumb-nut, D, constructed with a re-

duced lower neck, *d*, countersunk, as at *f*, and provided with any number of side locking lips or wings, *h*, the washer E, over which the lower countersunk end of the neck *d* is riveted to attach the nut to the cross-bar, and the bent screw-rod hanger B, essentially as shown and described, and for the purpose herein set forth.

OLIN HARLEY.

Witnesses:

GEORGE W. REASER,
JAMES ARNOLD.