L. T. BURNS.

LADDER BRACKET.

APPLICATION FILED DEC. 31, 1907.

910,639. Patented Jan. 26, 1909.

Fig. 1.

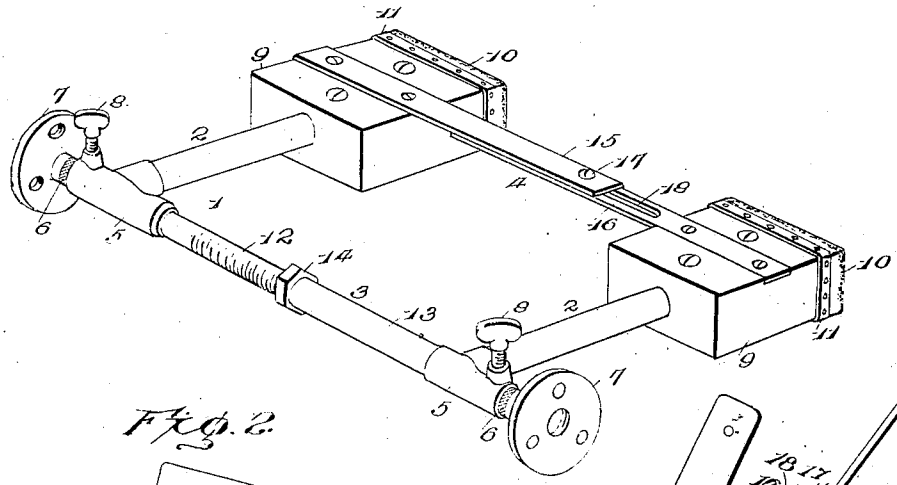


Fig. 2.

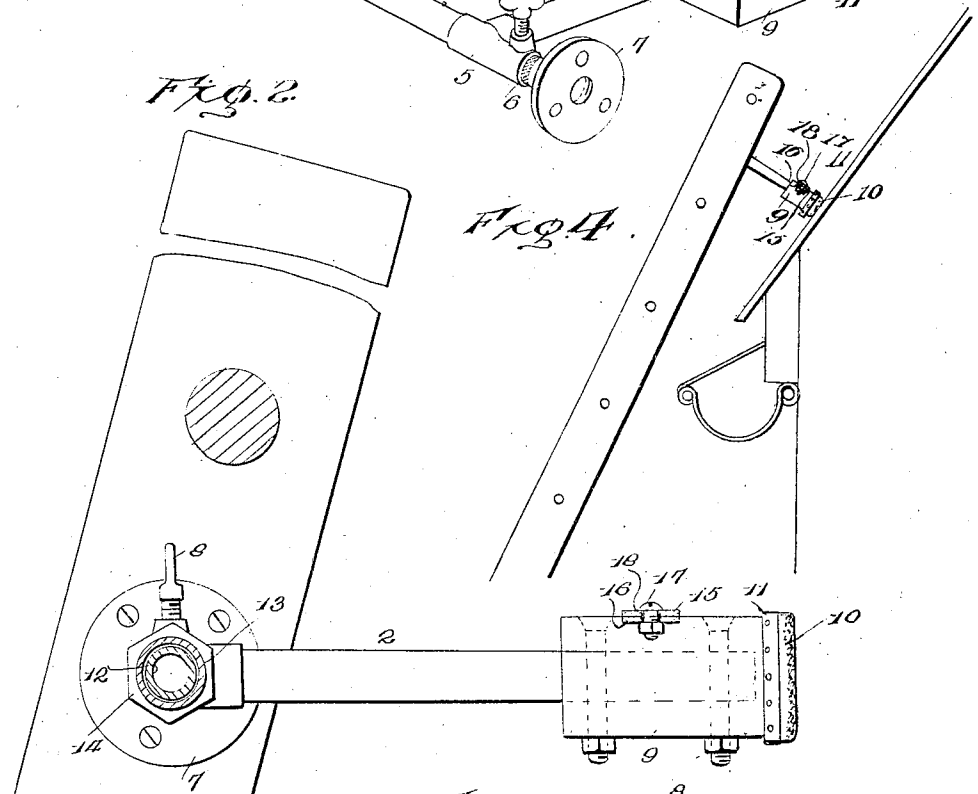
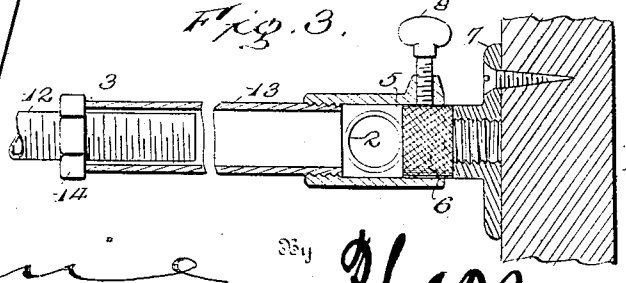


Fig. 4.

Fig. 3.



Witnesses

Inventor
L. T. Burns

By Thos. A. Racey. Attorneys

UNITED STATES PATENT OFFICE.

LUKE T. BURNS, OF WATERBURY, CONNECTICUT.

LADDER-BRACKET.

No. 910,639. Specification of Letters Patent. Patented Jan. 26, 1909

Application filed December 31, 1907. Serial No. 408,717.

To all whom it may concern:

Be it known that I, LUKE T. BURNS, citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Ladder-Brackets, of which the following is a specification.

This invention contemplates certain new and useful improvements in ladders and the object of the invention is an improved bracket designed to be secured to the upper end of a ladder and arranged to hold the same in spaced relation to the work, as may be desired to prevent said upper end from bearing against and obviously damaging a gutter or rain spout or the like outstanding from the wall or roof of a house.

A further object of the invention is a simple, durable and efficient construction of a device of the character described which may be applied to ladders of different widths and which may be quickly and conveniently adjusted to compensate for the pitch of a roof or the angle of inclination of the ladder.

With these and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and the accompanying drawing, in which:

Figure 1 is a perspective view of my improved ladder bracket; Fig. 2 is a sectional view thereof, showing it applied to a ladder; Fig. 3 is a detail view in section of one of the cross-bars, and Fig. 4 is a view in the nature of a diagram illustrating the use of the ladder bracket.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

My improved bracket comprises a frame 1 pivotally secured to the upper end of the ladder and constructed in two side bars 2 and two cross bars 3 and 4. In order to establish a pivot connection between the frame 1 and the ladder, the cross-bar 3 is formed at its ends with outwardly facing sockets 5 and two trunnions 6 are received in said sockets, said trunnions being carried by disks 7 secured to the respective inner faces of the sides of the ladder at the upper end thereof. The trunnions 6 are preferably roughened on their peripheries as shown and thumb screws 8 are mounted in the ends of the cross-bar 3 and are designed to bear against the trunnions 6 to hold the frame 1 in any adjusted position.

The side bars 2 are provided with enlarged heads 9 which project beyond the cross-bar 4 and are arranged to bear against the work when the frame is in an operative position. Pads 10 of rubber or the like are secured to the projecting ends of the heads 9 by metallic bands 11, and are designed to prevent said heads from scratching or otherwise marring the work.

In order to adapt my improved bracket for use with ladders of different sizes, the cross-bars 3 and 4 are designed to be extended. To accomplish this purpose the cross-bar 3 is constructed in two telescoping members, a threaded inner member 12 and a hollow outer member 13 in which the inner member fits, a nut 14 being adjustably mounted on the inner member and bearing against the end of the outer member to limit the inward movement of said inner member and thus obviously regulating the length of the cross-bar. The cross-bar 4 is formed in two overlapping sections 15 and 16, a bolt 17 being secured in one end of the section 15 and working in a longitudinal slot 18 formed in the section 16.

In the practical use of my improved bracket, the frame is adjusted so that it projects from the upper end of the ladder at the proper angle, and the ladder is then tilted against the work with the heads of the frame bearing thereagainst as clearly shown in Fig. 4.

While but one form of the invention is embodied in the description and illustrated in the drawing, it is to be understood that various changes may be made in the size, shape and proportion of the parts within the scope of the invention as defined in the appended claims.

Having thus described the invention, what I claim is:

1. The combination with a ladder, of trunnions secured to the inner faces of the sides thereof, a frame embodying side-bars and cross-bars, one of said cross-bars being formed in its ends with sockets receiving the respective trunnions, and screws mounted in the ends of said cross-bar and adapted to bear against said trunnions as and for the purpose set forth.

2. The combination with a ladder, of trunnions secured to the inner faces of the sides thereof, a frame embodying side-bars and a cross-bar, the cross bar being formed in its ends with sockets receiving the respective trunnions, set screws mounted in the ends of said cross-bar and adapted to bear against the trunnions, and means for laterally adjusting the cross-bar to permit the sockets to be disengaged from the trunnions.

3. The combination with a ladder, of a frame embodying side bars and a cross bar, plates secured to the ladder sides and having a socket and trunnion connection with the frame, the cross bar being constructed in inner and outer telescoping members, and the inner member being threaded, a nut working upon the threaded inner member and bearing against the outer member, and means for holding the frame at different inclinations relative to the ladder.

4. The combination with a ladder, of a rame embodying side-bars and a cross-bar, the cross-bar being constructed in extensibly connected sections, plates secured to the inner faces of the ladder sides and having a socket and trunnion connection with the ends of the cross-bar, and means for holding the frame at different inclinations relative to the ladder.

5. The combination with a ladder, of a frame embodying side-bars and a cross-bar, plates secured to the inner faces of the ladder sides and having a socket and trunnion connection with the ends of the cross-bar, and means for holding the frame at different inclinations relative to the ladder.

In testimony whereof I affix my signature in presence of two witnesses.

LUKE T. BURNS. [L.S.]

Witnesses:
B. A. WOLCOTT,
JOSEPH L. COSGROVE.