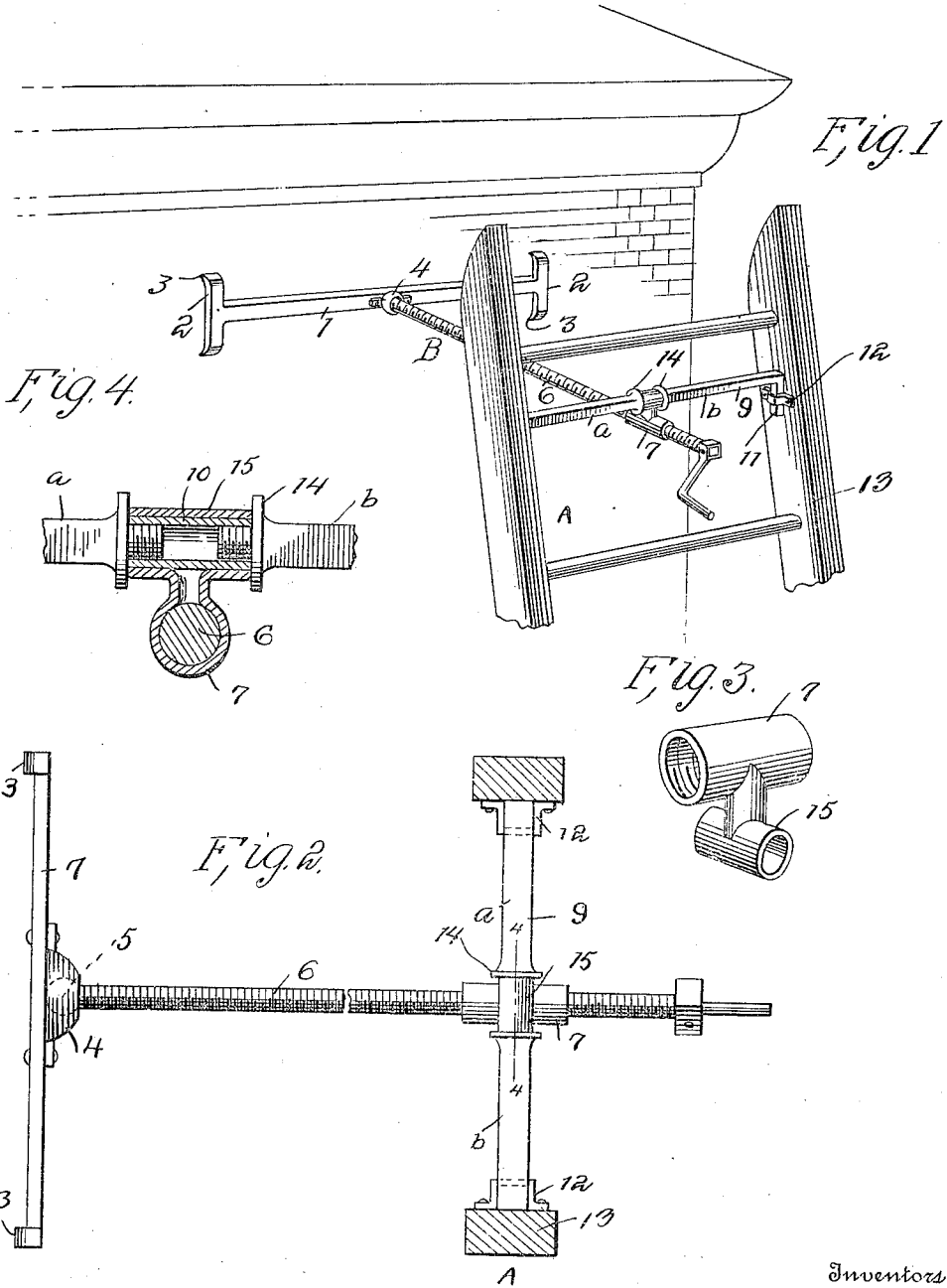


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LADDER ATTACHMENT.
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972,001.

Patented Oct. 4, 1910.



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LADDER ATTACHMENT.

972,001.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ROBERT HOLDORF and WILLIAM HOLDORF, both citizens of the United States, residing at La Grange, in the county of Cook and State of Illinois, have invented new and useful Improvements in Ladder Attachments, of which the following is a specification.

This invention relates to an attachment for ladders especially adapted for use by tinners, cornice makers, painters, sign hangers, and the like, the attachment being of such a nature that the upper end of the ladder can be supported away from the house or other building so that the workman can readily reach the wide eaves or cornices now so commonly used on buildings.

The invention has for its principal object to provide an extremely simple, effective and practical ladder attachment of the character referred to by which the user can place and support the upper end of the ladder at any desired point away from the wall against which the ladder is set.

Another object of the invention is the provision of a ladder attachment which can be readily applied or removed and whereby the ladder can be moved toward or away from the wall to any desired extent by a manipulation of an adjusting screw.

With these objects in view, and others as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention;— Figure 1 is a perspective view of the upper portion of a ladder with the attachment applied thereto and in use. Fig. 2 is a horizontal section showing the attachment in plan. Fig. 3 is a perspective view of the swinging nut through which the adjustment screw works. Fig. 4 is an enlarged sectional view on line 4—4 of Fig. 2.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, A designates a ladder to which is applied the attachment, designated generally by B whereby the upper end of the ladder can be indirectly supported by a wall of a building at any desired distance from such wall so as to

permit painters, tinners and the like to place themselves in better position for working on cornices or other projecting parts of buildings.

The attachment B comprises a base piece 1, which engages the wall against which the ladder is to be set, said base piece being in the form of a bar having oppositely extending feet 2 at its extremities to bear against the wall of the building, the said feet being pointed at 3 to bite into the wall and thus prevent slipping. Attached to the central portion of the base piece 1 is a socket 4 which receives the enlarged end or ball 5 of the adjusting screw 6, which serves to hold the upper end of the ladder in spaced relation with the wall of the building. The screw engages a nut 7, which is suitably attached to the ladder, and for turning the screw, the front end thereof is provided with an operating crank, whereby the workman can swing the ladder inwardly or outwardly by the mere turning of the screw. The nut 7 is connected with the ladder by a cross brace or bar 9 composed of two sections *a* and *b* that have their inner ends connected together by a coupling 10, which is threaded on the said ends. The outer ends of the sections are formed with depending members 11 that engage in sockets or eyes 12 fastened to the inner faces of the side bars 13 of the ladder. At the ends of the coupling 10, the two sections of the brace or attaching bar 9 are flanges forming annular shoulders 14, and confined between these shoulders is a sleeve 15 fastened to and forming a part of the nut 7, the axis of the sleeve being disposed at right angles to the axis of the screw. By making the attaching device 9 into two parts as described, the nut can be readily removed or the parts easily assembled. By means of the sleeve, the nut can have a swinging movement as the ladder is moved inwardly and outwardly, it being understood that as a ladder swings on its lower end as a center, the nut 7 will move in an arc of a circle, whereas the screw will swing in a vertical plane about the ball and socket joint as a center.

In operation, the ladder is first raised and placed at the desired point with respect to the building on which work is to be done and the upper end of the ladder will be set against the wall while the lower end rests on the ground, the attachment being fully retracted and suspended on the ladder. The

workman then scales the ladder and adjusts the attachment so that the screw will be horizontal and the base piece will engage the wall. The screw is then turned to move the ladder away from the wall to the desired point. In taking down the ladder, the screw is reversed so as to retract the base piece and when retracted, the screw can swing down to position parallel with the ladder.

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention relates, and while we have described the principle of operation of the invention, together with the device which we now consider to be the best embodiment thereof, we desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as are within the scope of the claims.

What we claim as new and desire to secure by Letters Patent is:—

1. In a ladder attachment, the combination of a wall engaging bar like base piece, a screw connected with and extending at right angles to the base piece, a device constructed for connection with a ladder, and a nut on the device engaging the screw.

2. In a ladder attachment, the combination of a wall engaging base piece, an adjusting screw, a ball and socket joint between the screw and base piece, a brace bar adapted to be connected with the ladder, and a swinging nut on the said bar and in which the screw is threaded.

3. In a ladder attachment, the combination of a wall-engaging base piece, an adjusting screw, a ball and socket between the screw and base piece, a device for connection with the ladder consisting of separable sections, a nut swiveled between the sections and with which the screw engages, and means on the screw for turning the same.

4. In a ladder attachment, the combination of a wall-engaging device in the form of a bar having terminal feet, a socket at the middle of the bar, a screw having a ball dis-

posed in the socket, and a device for operatively connecting the screw with a ladder.

5. In a ladder attachment, the combination of a device adapted to be connected with the ladder, said device comprising members and a coupling connecting the members together, a nut, a sleeve on the coupling and connected with the nut and disposed at right angles thereto, a screw threaded in the nut, and a wall-engaging device carried by the screw.

6. In a ladder attachment, the combination of a brace bar composed of alining sections having threaded inner ends, a coupling engaging the threaded ends for securing the parts together, a sleeve surrounding the coupling, means for holding the sleeve against longitudinal movement, a nut disposed at right angles to and connected with the sleeve, a screw threaded in the nut, means for turning the screw, a wall engaging device, and a flexible joint between the screw and device.

7. A ladder including side bars having sockets on their inner faces, with an attachment comprising a brace bar having depending extremities engaging in the sockets, a nut extending at right angles to the bar, means for operatively connecting the screw with the bar, means for turning the screw, and a device on the end of the screw for engaging a wall.

8. The combination of a ladder including side bars, with an attachment including a brace bar having its ends connected with the side bars of the ladder, an adjusting screw, a swinging nut on the central part of the brace bar and with which the screw engages, means on the front end of the screw for turning the same, and a device on the opposite end of the screw for engaging a wall.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT HOLDORF.
WILLIAM HOLDORF.

Witnesses:

GLENN M. SLAWSON,
ELSIE HOLDORF.