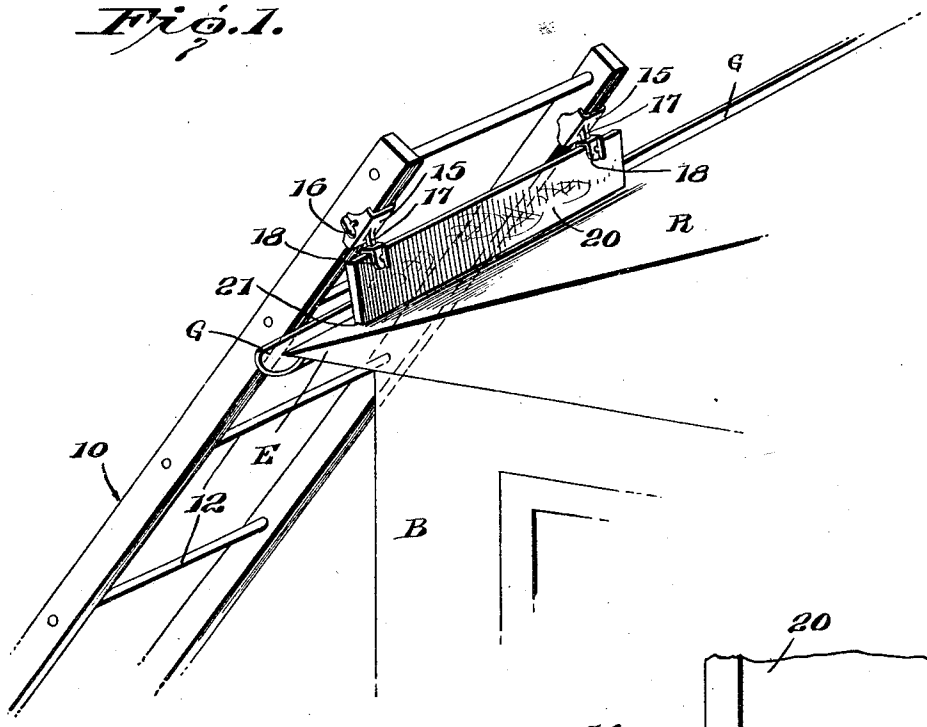
July 22, 1924. 1,502,490

W. G. TACK

LADDER ATTACHMENT

Filed Jan. 16, 1923

Fig. 1.



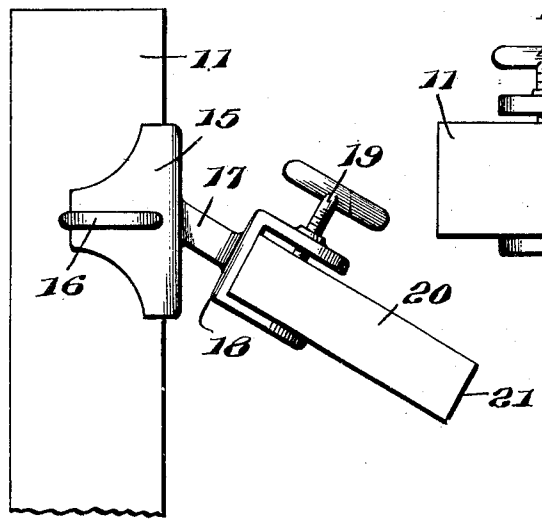


Fig. 2.

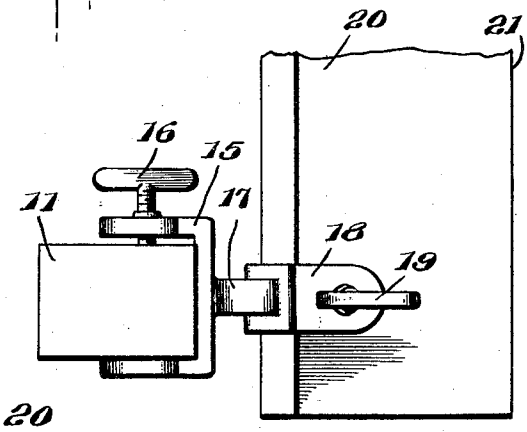


Fig. 3.

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Patented July 22, 1924. 1,502,490

UNITED STATES PATENT OFFICE.

WILLIAM G. TACK, OF GARRETTSVILLE, OHIO.

LADDER ATTACHMENT.

Application filed January 16, 1923. Serial No. 612,966.

To all whom it may concern:

Be it known that I, WILLIAM G. TACK, a citizen of the United States of America, and resident of Garrettsville, Portage County, State of Ohio, have invented certain new and useful Improvements in and Relating to Ladder Attachments, of which the following is a specification.

This invention relates to certain improvements in ladder attachments; and the nature and objects of the invention will be readily recognized and understood by those skilled in the arts involved in the light of the following explanation and detailed description of the accompanying drawings illustrating what I at present consider and believe to be the preferred embodiments or mechanical expressions of the invention from among various other forms, arrangements, combinations and constructions of which the invention is capable within the spirit and scope thereof.

An object of the invention is to provide a ladder attachment which will support the end of a ladder spaced from an object on and against which it may be desired or necessary to rest the ladder, so as to prevent possible damage or injury to the object due to the ladder contacting therewith or bearing thereagainst.

A further object of the invention is to provide an attachment for supporting a ladder spaced from and out of contact with an object on and against which it is desired to rest a ladder, which attachment will be so formed as to present an extended supporting and bearing surface for engagement with the object and prevent displacement of the ladder from desired position due to slipping or to lateral or turning forces which may be applied to the ladder in use.

A further object of the invention is to form an attachment for supporting a ladder spaced from an object against which it is desired to rest the ladder, of simple, durable and inexpensive construction, and which is adapted for ready mounting on and removal from a ladder.

With the foregoing and various other objects in view, which other objects will be readily recognized and appreciated by those familiar with this art, the invention consists in certain novel features in construction and in arrangements and combinations of elements, as will be more fully and particularly pointed out and specified hereinafter.

Referring to the accompanying drawings:

Fig. 1, is a perspective view of one form of the invention applied to a ladder mounted in position on and against a building.

Fig. 2, is a view in side elevation of an attachment embodying the invention applied to a ladder, a portion only of the ladder being shown.

Fig. 3, is a view in top plan of one side of an attachment of the invention applied to a ladder, one side bar only of the ladder being shown.

In the accompanying drawings one form and embodiment of the invention is illustrated for purposes of explanation, as adapted for use with and application to a well known general type of ladder. However, it will be apparent to those skilled in this art that the various features of the invention and principles involved are capable of use with other types of ladders, and presentation in other forms to meet the particular conditions and requirements of the type of ladder to which the invention is to be applied. Therefore, it is not intended or desired to limit the invention to the particular embodiments or application thereof illustrated by way of example in the accompanying drawings.

In order to more clearly bring forth and explain the various features of the invention, one use of a ladder in which certain conditions are encountered that the invention overcomes, is illustrated in Fig. 1 of the accompanying drawings. With a building of the type in which gutters or the like are mounted at the eaves of the roof, when it is desired to support or rest a ladder on the roof, the ladder must press and bear against the guttering and upon the application of weight or pressure to the ladder injury or damage to the guttering frequently results. An example of a roof of the above type in which these conditions are encountered is illustrated in Fig. 1 of the drawings, and discloses a portion of a building B including a sloping or inclined roof R at the eaves E of which guttering G is mounted. A ladder 10 of any desired type comprising the spaced longitudinal side bars 11 and transverse rungs 12 extending between and connecting the side bars 11 in the usual manner is illustrated in position against and supported from the roof R, and

spaced from and out of contact with the guttering G by means of an attachment embodying the invention applied to the upper end of the ladder 10.

The illustrated embodiment of an attachment of the invention comprises a pair of substantially U-shaped clamps 15 adapted to be secured to one side of the ladder 10 by attaching the same over and onto the side bars 11 of the ladder, as clearly shown in the drawings. Each clamp 15 is provided with a clamping screw 16 mounted in and extending through one side plate thereof and adapted to engage a side bar 11 onto which the clamp is placed to firmly and detachably secure and confine the clamp in the desired position on and to the ladder. An arm 17 extends rigidly from the base or cross plate of each clamp 15, in the present instance integral therewith although not so limited, and is inclined longitudinally of and outwardly from the clamp, so that in proper mounted position of the clamp on a ladder the arm 17 extends outwardly from and is inclined downwardly with respect to the ladder. The outer ends of the arms 17 are provided with the substantially U-shaped clamps 18 which are disposed at approximately right angles to the clamps 15 connected thereto and spaced therefrom by the arms 17. The clamps 18 are so mounted on the ends of the arms 17, respectively, as to extend in substantial outward alinement therewith and disposed at an outward and downward inclination in mounted position, with respect to the clamps 15. Each of the clamps 18 is provided with an attaching screw 19 similar to the screws 16 of the clamps 15. In the illustrated example the clamps 18 are formed integral with the arms 17, so that each pair of clamps 15 and 18 forms with the connecting arm 17, a rigid integral unit. However, attention is here directed to the fact that the invention contemplates other than an integral connection of the clamps 15 and 18 of each unit, and it is not desired to limit the invention to the construction and mounting shown and described above.

In the application and use of the invention a pair of clamps 15 are secured to the upper ends of the side bars 11, respectively, of the ladder 10, and in transverse alinement thereon, with the arms 17 and outer clamps 18 inclined outwardly and downwardly with respect to the ladder, as clearly disclosed in Figs. 1 and 2. An extending supporting and bearing surface forming member 20 is provided, which member is secured in and extending between the clamps 18, transversely across and spaced from the ladder 10. In the illustrated example the supporting member 20 is formed by a plank or board of sufficient length to extend across the ladder, and secured at opposite points on the upper edge portion thereof in the clamps 18, by means of the attaching screws 19 thereof. In this position the member 20 extends across the ladder 10 and is inclined outwardly and downwardly therefrom to provide at its outer portion the extended engaging surface 21.

With the attachment embodying the features of the invention above described, mounted on and applied to the ladder 10, when it is desired to place the ladder in position with its upper end resting on an object, for example the roof R of the building B, the supporting member 20 is placed in position with its extended bearing surface 21 engaging the sloping roof R, and due to the inclination of the member 20 and its rigid spacing from the ladder 10, the ladder is supported and maintained spaced from and out of contact or engagement with the eaves E or guttering G which project outwardly from the roof and building. In this manner injury or damage to the eaves or guttering of the building is avoided and the ladder is maintained in desired mounted position supported by the member 20, the extended bearing surface 21 of which insures the ladder against slipping or displacement due to lateral, twisting or turning forces which may be applied thereto in use, as will be understood by those familiar with the use of ladders.

The attachment can be readily removed from and applied to a ladder through the medium of the attaching screws of the clamps and due to the construction and arrangement of the clamps 18, any desired board, plank, or the like may be employed which obviates the necessity of maintaining and storing any specially constructed member for this purpose, unless so desired. The construction of the clamp units is extremely simple and provides a durable but inexpensive attachment. Various other uses and applications are within the scope of the invention, and the illustrated application and use is intended merely to permit of an explanation of the invention.

It is evident that various changes, modifications, variations and substitutions might be resorted to without departing from the spirit and scope of the invention, and hence I do not wish to limit myself to the exact disclosures hereof.

Desiring to protect my invention in the broadest manner legally possible, what I claim is:

1. In a ladder attachment, a clamp adapted to be secured to a ladder, an arm extending outwardly from and inclined with respect to said clamp, a second clamp at the outer end of said arm, and a supporting member mounted in said outer clamp and inclined with respect to said ladder clamp.

2. In a ladder attachment, a clamp

adapted to be secured to a side bar of a ladder, an arm extending outwardly and inclined downwardly from said clamp in mounted position, and a second clamp at the end of said arm and disposed in a plane at an angle to the plane of said first mentioned clamp.

3. In a ladder attachment, a clamp adapted to be secured on a side bar of a ladder, an arm extending outwardly and inclined downwardly from said clamp in mounted position thereof, a second clamp on the outer end of said arm and disposed in a plane at an angle to the plane of said first clamp, and a supporting member mounted in said second clamp and extending outwardly therefrom, the said member forming a bearing surface spaced from said first clamp.

4. A ladder attachment comprising, a pair of clamp units adapted to be attached at one end to the opposite side bars, respectively, of a ladder, and a supporting member secured in and extending between the outer ends of said clamp units, the said member adapted to be inclined outwardly and downwardly from a ladder to which said units are attached.

5. As a new article of manufacture, a clamp unit for ladder attachments, comprising a clamp for attachment to the side bar of a ladder, an arm integral with and extending outwardly from said clamp at an angle thereto, and a second clamp at the outer end of and integral with said arm, said second clamp disposed in a plane transversely of said first mentioned clamp and adapted to receive and hold a supporting member transversely of a ladder.

6. In combination with a ladder, a clamp attached to a side bar thereof, an arm extending outwardly and inclined downwardly from said clamp, a second clamp at the outer end of said arm and in proximity to said side bar clamp, and a supporting member having relatively great width mounted in said second clamp and extending outwardly therefrom at an inclination to the ladder to form an extended bearing surface remote therefrom.

7. In a ladder attachment, a plurality of clamps adapted to be attached to the side bars, respectively, of a ladder, an arm extending outwardly from each side bar clamp at an angle thereto, a second clamp at the outer end of each arm in proximity to the side bar clamp thereof, respectively, and a supporting member having a relatively great width mounted in said second clamps and extending therebetween, the said supporting member extending outwardly from said clamps and forming an extended bearing surface remote from a ladder to which said clamps are attached.

8. As a new article of manufacture, a clamp unit for ladder attachments, comprising a substantially U-shaped clamp for attachment to a ladder, an integral arm extending outwardly from the base of said clamp rigid therewith and inclined longitudinally with respect to the clamp, and a second substantially U-shaped clamp at the outer end of said arm and disposed transversely with respect to said first clamp.

Signed at Windham, Ohio, this 2nd day of January, 1923.

WILLIAM G. TACK.