(No Model.)

E. S. BACON.

LADDER SPIKE.

No. 375,249. Patented Dec. 20, 1887.

Fig. 1.

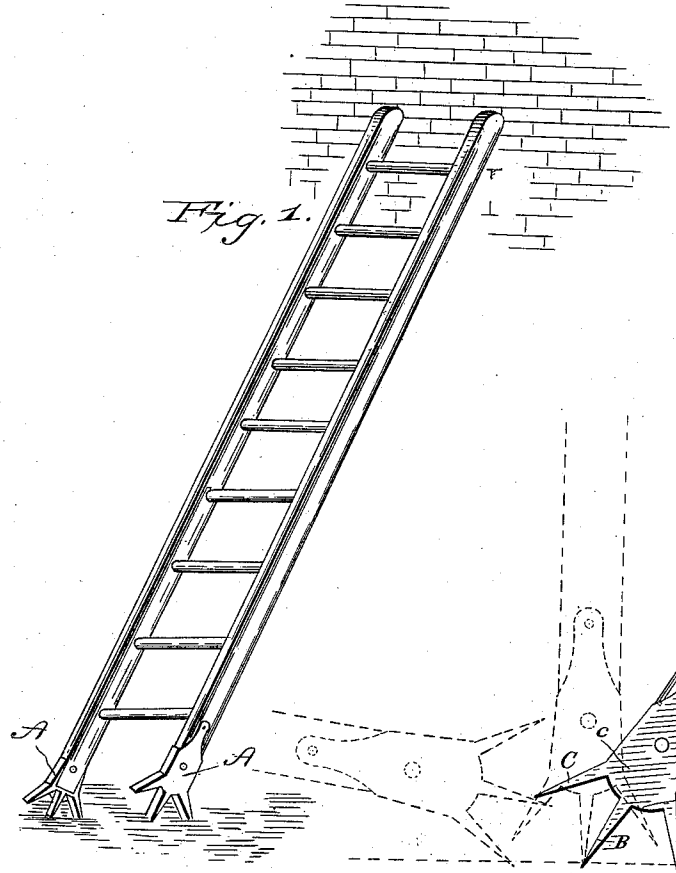


Fig. 2.

Fig. 3.

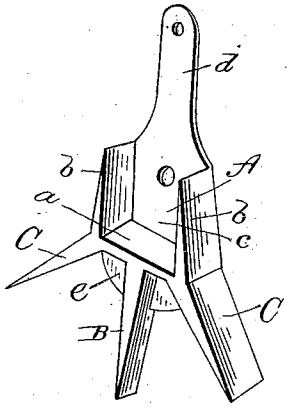
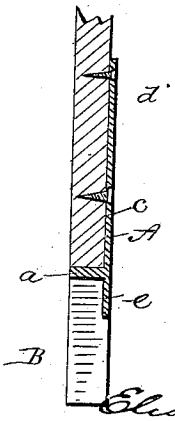


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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LADDER-SPIKE.

SPECIFICATION forming part of Letters Patent No. 375,249, dated December 20, 1887

Application filed September 27, 1887. Serial No. 250,838. (No model.)

To all whom it may concern:

Be it known that I, ELIAS S. BACON, a citizen of the United States, residing at Albion, in the county of Orleans and State of New York, have invented certain new and useful Improvements in Ladder-Spikes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to a certain new and useful device to be attached to the lower ends of the side bars of ladders, and which I denominate a "ladder-spike."

The object of the invention is to provide a simple and cheap attachment to a ladder, whereby it may be quickly and easily elevated and placed against the side of a building or other object, and be securely held in such position until it is desired to change its position, the construction being such as to enable a single person to handle with ease and safety very large ladders, as will presently appear.

To these ends the invention consists in the novel construction and arrangement of parts, which will be fully understood from the following description, when taken in connection with the annexed drawings, in which—

Figure 1 represents a perspective view of a ladder with my improved spikes attached thereto; Fig. 2, a side elevation of a portion of the lower end of the ladder, showing in dotted lines the different positions the ladder assumes while it is being elevated or raised to position against a building; Fig. 3, a perspective view of the device detached, and Fig. 4 a longitudinal sectional view of the same attached to the lower end of one of the bars of the ladder.

Referring to the drawings by letter, A designates a socket open at its upper end and inner side and composed of the bottom plate, *a*, the two sides *b*, and the back plate, *c*, having formed on it an upward extension, *d*, and a downward extension, *e*, for the purpose hereinafter specified. Formed integral with this socket, and projecting at approximately right angles from the center of the bottom plate, *a*, is a spike, B, preferably tapering in form and sharpened. Projecting from the lower corners of the socket, and on each side of the center spike, preferably formed integral with the socket, are two spikes, C, similar to the center spike, but projecting radially or diagonally from the socket, as shown, so as to be on an obtuse angle with the side bars of the ladder when the device is attached thereto. These three spikes are braced and strengthened by the lower extension, *e*, of the back plate of the socket.

The device is attached to the lower ends of the side bars of the ladder by securing the same in the sockets, as shown, by suitable bolts or screws, the back plate, *c*, and its extension *d* being perforated for the passage of the same. The extension *d* on the back serves to assist in securely fastening the device to the ladder, as is evident.

I wish it understood that I do not confine myself to the exact construction and arrangement of parts shown and described, as modifications of the same will suggest themselves to any skilled mechanic. For instance, the socket A may be entirely closed instead of open on its inner side; or the center spike, B, may be entirely done away with; or one only of the radial spikes C may be used instead of two, as is evident.

The device is cast entirely of one piece, and therefore can be made very cheaply and may be readily applied to any ladder.

In raising a ladder upon its end it will be readily seen that the radial spikes C will enter the ground a sufficient distance to hold the lower end of the ladder firmly and securely to the ground. As the ladder is elevated, the other spikes will take into the ground and serve to hold the ladder in an upright position. It will thus be seen that a great advantage with this improved device is that by means of it a single man can raise a very long ladder without any other manual assistance whatever.

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

1. An attachment to ladders, consisting of the socket adapted to embrace the lower end of a ladder side bar, the said socket having formed therewith one or more radial spikes, C, which project at an obtuse angle to the side of the socket, as and for the purpose set forth.

2. An attachment to ladders, consisting of

the socket A, adapted to embrace and be secured to the ends of the side bars of the ladder and having projecting from its lower corners the radial spikes C C, as and for the purpose set forth.

3. An attachment to ladders, consisting of the socket A, the radial spikes C C, projecting from the corners thereof, and the central spike, B, about midway between the said radial spikes, the whole being cast integral, substantially as described.

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

ELIAS S. BACON.

Witnesses:
W. G. TAYLOR,
JOHN CUNNEEN.