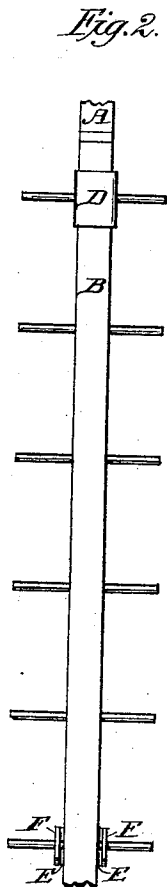
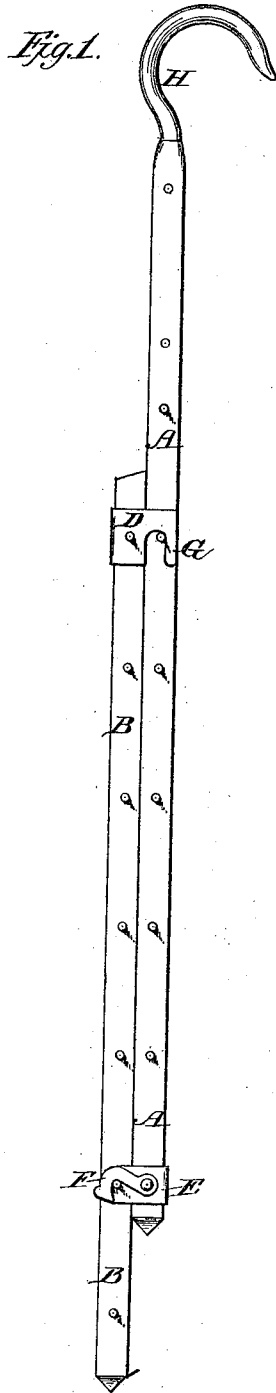


J. W. ALLEN.
LADDERS.

No. 185,203.

Patented Dec. 12, 1876.



Witnesses
J. S. Byers
Philip Byers.

Inventor
John W. Allen
Per *A. H. Byers.*

UNITED STATES PATENT OFFICE.

JOHN W. ALLEN, OF REPUBLIC, OHIO.

IMPROVEMENT IN EXTENSION-LADDERS.

Specification forming part of Letters Patent No. **185,203**, dated December 12, 1876; application filed June 12, 1876.

To all whom it may concern:

Be it known that I, JOHN W. ALLEN, of Republic, in the county of Seneca and State of Ohio, have invented a new and useful Improvement in Extension-Ladders, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to provide a cheap, light, and portable extension-ladder, to be used in places and positions where ordinary ladders are comparatively useless. My invention is particularly suited for securing rope and tackle to the rafters of barns for unloading hay.

The accompanying drawing shows every part of my invention.

A and B represent the two sections of which my ladder is composed, which may be made of square or any other shaped timber, of suitable size, with pins through it, at suitable distances apart, for rounds or steps. At the top of the lower section a metallic band, D, passes round three sides, the ends projecting far enough to form a hook to grapple one of the

rounds of the second section. A similar band, E, is attached to the lower end of the second section; or it may have a semicircle cut out of its ends to fit down closely over the round. These bands D and E are held in position by fitting them snugly to the timber and passing a round or pin through each. To still further secure and hold the different sections together, two hooks, F G, are fastened to the lower band E, as shown in the drawing. To the top of the upper section I attach a metallic hook, H, for the purpose of grappling a rafter, beam, or any other object, and holding the ladder suspended while being used. Other sections may be added in like manner, if desired.

I claim as my invention—

A ladder in two or more sections, A B, composed of single standards, with rounds, and secured by bands D E, hooks F G, and provided with a grappling-hook, H, substantially as and for the purpose described.

JOHN W. ALLEN.

Witnesses:

J. S. BYERS,
PHILIP BYERS.