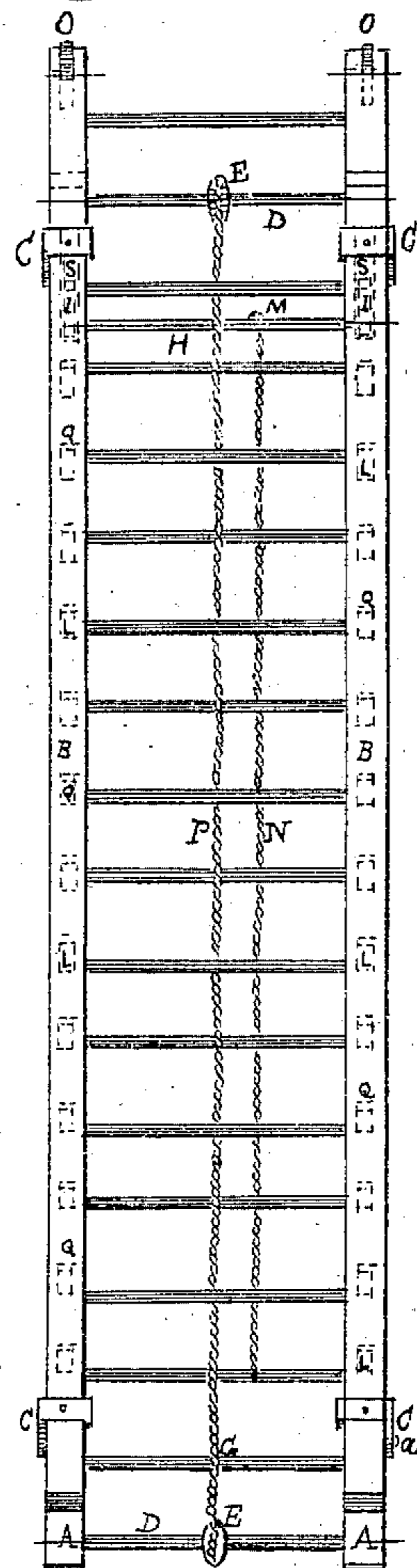


John Kerns'
Improved
Extension Ladder.

74548



PATENTED
FEB 18 1868
Fig 2.

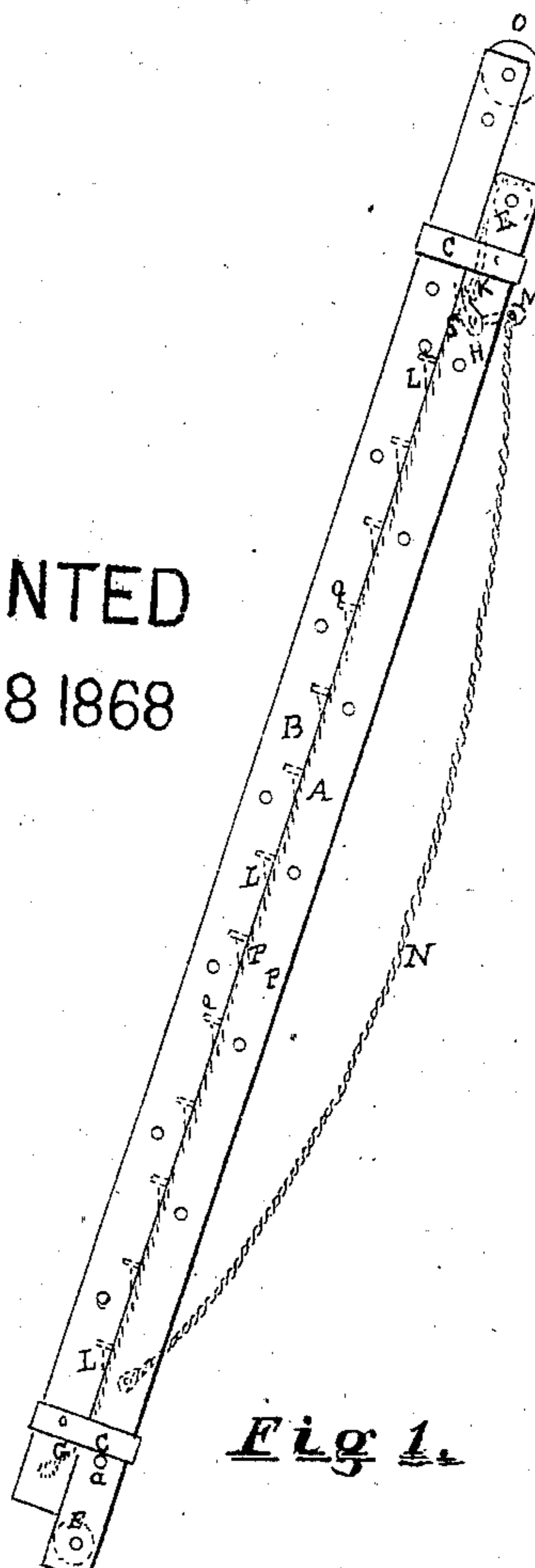
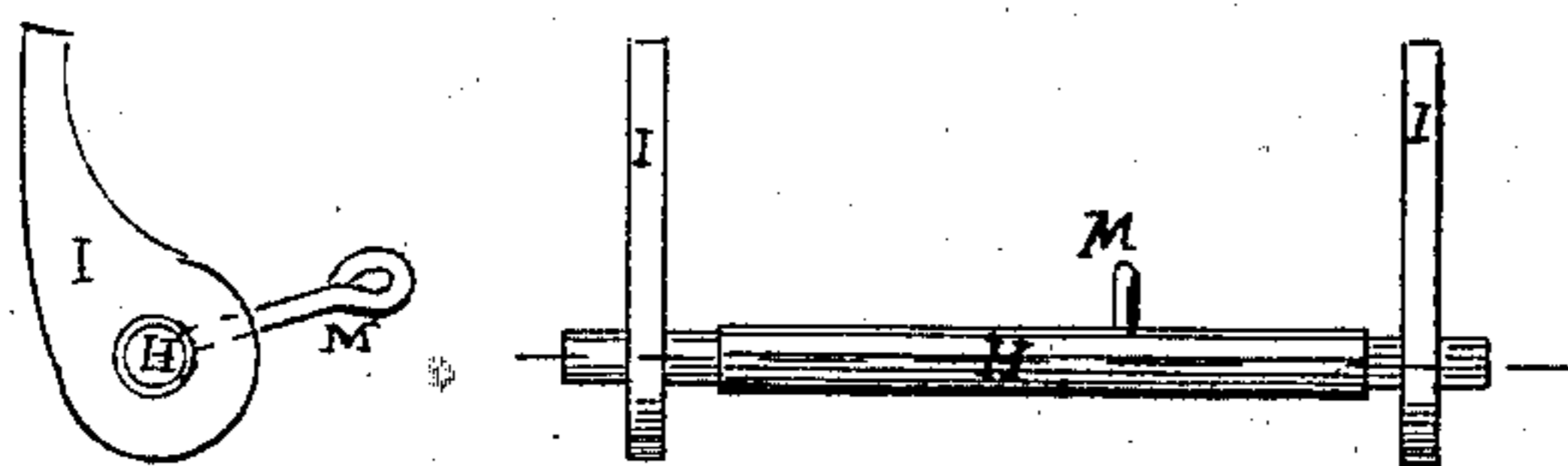


Fig 1.



Figs 3.

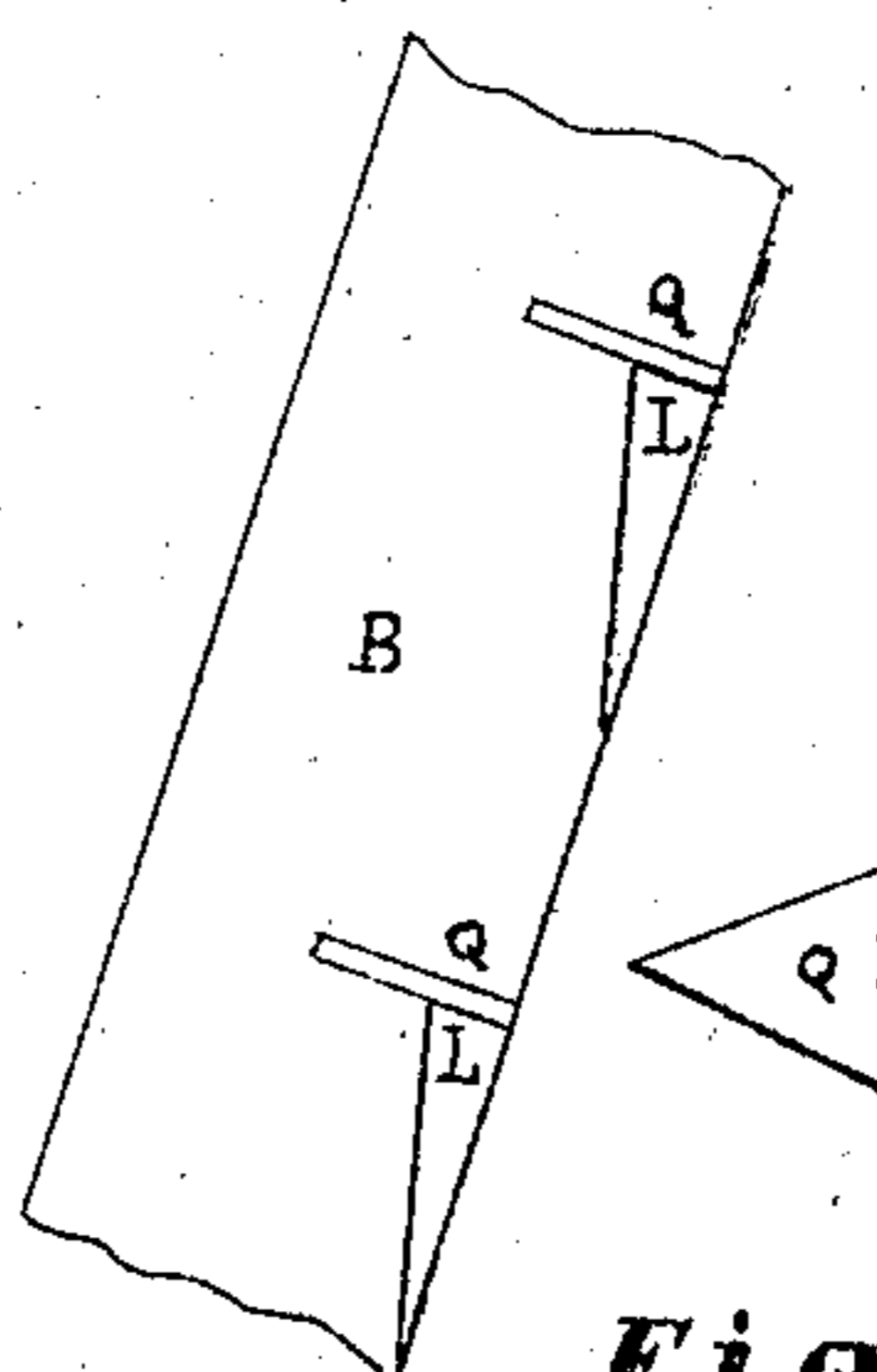


Fig 4.

Chas. F. Manderson
W. A. Winickal } Witness.

John Kerns Inventor
By Job Abbott Attorney.

United States Patent Office.

JOHN KERNS, OF LOUISVILLE, OHIO, ASSIGNOR TO D. M. SLUSS AND D. M. SLUSSER, OF SAME PLACE.

Letters Patent No. 74,548, dated February 18, 1868.

IMPROVED EXTENSION-LADDER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN KERNS, of Louisville, in the county of Stark, and State of Ohio, have invented new and useful Improvements in Extension-Ladders; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, of which drawings—

Figure 1 is a side view of my ladder.

Figure 2 is a front view of the same.

Figures 3 are side and end views of the pawl-axle and pawls.

Figure 4 is a sectional view of one of the sides of the part B, showing the arrangement of ratchets.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

My ladder is made in two parts, A and B, both in the common form of ladder, the part B being secured to the part A by the straps C C, which are arranged as shown, so that the part B is free to slide up or down on the part A. A stop, *a*, is put on the part A, which prevents the part B from sliding down too far. At the top of the part B are inserted the wheels or rollers O O, as shown, which aid in the raising of the ladder on a building, by rolling up the side, and thus prevent any catching of the top of this part. The pawl-axle H is arranged in the part A, as shown, and on this axle are secured the pawls I I, which set in slots S S, cut in the sides of the part A, as shown. The springs K K keep these pawls pressed against the part B. The pawls I I and the springs K K, being in the slots S S in the part A, and covered by the part B, are secure from any injury, being fully protected from being struck by any obstacle. On the part B are cut the ratchets L L, which work in connection with the pawls I I, and thus support the part B at any elevation. An arm, M, is made on the pawl-axle H, and to this arm a cord, N, is attached, by means of which the pawls I I can be disengaged from the ratchets L L, and the part B lowered at pleasure. On the rounds D D, of the part A, are placed the pulleys E E, and an endless rope, P, is arranged over them, as shown. To this rope P the cord G is attached, the other end of said cord G being attached to one of the lower rounds of the part B, as shown. It is easily seen that by drawing on that part of the rope P at the back of the part A, the part B can be raised to any desired point. The ratchets L L are countersunk in the sides of the part B, by which the part B is free to slide over the part A, without injury to the ratchets L L. At the top of each notch is driven an iron, Q, which prevents the pawls L L from wearing out or breaking off the notches.

I do not claim, as my invention, the ladders A and B, clasps or straps C C, rollers O O, springs K K, nor the pulleys E E; nor do I claim the making of ratchets L L on the part B, nor the pawls I I, taken separately; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The combination of the pawls I I, pawl-axle H, arm M, and cord N, when used in connection with the ratchets L L in the part B, which have irons, Q Q, inserted therein, and when the ladder A has the slots S S, all arranged in the manner and for the purposes specified.

As evidence that I claim the foregoing, I have hereunto set my hand, in presence of two witnesses, this 16th day of November, A. D. 1867.

JOHN KERNS.

Witnesses:

GEO. S. HURFORD,
D. M. SLUSSER.