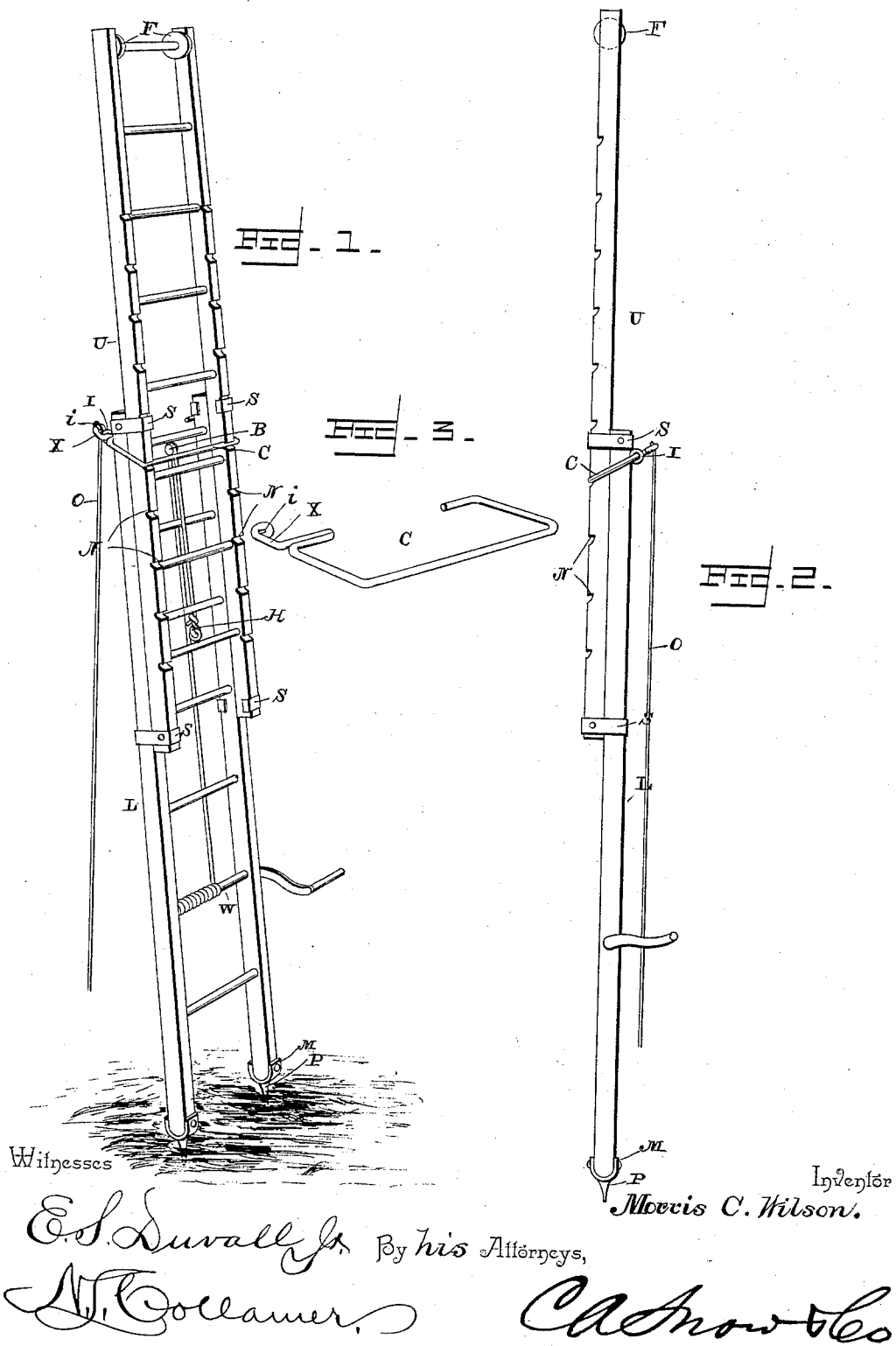


(No Model.)

M. C. WILSON.
EXTENSION LADDER.

No. 466,816.

Patented Jan. 12, 1892.



UNITED STATES PATENT OFFICE.

MORRIS C. WILSON, OF ATHENS, PENNSYLVANIA.

EXTENSION-LADDER.

SPECIFICATION forming part of Letters Patent No. 466,816, dated January 12, 1892.

Application filed September 11, 1891. Serial No. 405,409. (No model.)

To all whom it may concern:

Be it known that I, MORRIS C. WILSON, a citizen of the United States, residing at Athens, in the county of Bradford and State of Pennsylvania, have invented a new and useful Extension-Ladder, of which the following is a specification.

This invention relates to ladders, and more especially to that class thereof known as "extension," and the object of the same is to produce an improved catch for holding the members of the ladder in extended position.

To this end the invention consists in a ladder constructed substantially as hereinafter more fully described and claimed, and as illustrated on the sheet of drawings, wherein—

Figure 1 is a general perspective view of the ladder extended partially and supported by my improved catch. Fig. 2 is a right-side elevation of Fig. 1. Fig. 3 is an enlarged perspective detail of the catch.

Referring to the said drawings, the letter L designates the lower and U the upper member of an extension-ladder, these members being connected by sliding straps S, which permit their movement upon each other, as is usual. The lower member preferably has metallic straps M around its lower ends, and pins P project therefrom, so as to penetrate the earth to prevent the ladder slipping, while at the upper end of the upper member is preferably located a pair of friction-wheels F, which travel against the wall as the ladder is extended.

The letter W designates a windlass, of any suitable character, which is carried by the lower member within reach of an operator standing on the ground, and the rope from this windlass leads up behind the rungs of the lower member over the pulley-block B, attached to the upper rung, and down, preferably, to a hook H, which detachably engages the lower rung of the upper member. By this means the windlass can be operated to extend the ladder by moving the upper member upward over the lower member and through the straps S.

The letter C designates my improved catch, which is a U-shaped piece of stout wire, whose body stands across the face of the upper member U and is adapted to engage notches

N in the edges of the side bars thereof, and whose arms pass to the rear across the sides of the two members, turn inwardly, and are mounted loosely in eyes I, carried by the lower member L. One of these arms passes then again outwardly through its eye and is extended to the rear, as at X, being provided with an eye *i* at its extremity, and from this eye an operating-cord O leads to the ground.

In use, after the ladder has been extended as desired by operating the windlass, it is allowed to slide back until the catch C engages one pair of the notches N, when it will be held automatically and may be used like any other ladder, the support being at both sides of the upper member, and therefore being very strong and durable. When it is desired to lower the upper member, the windlass is given a slightly farther forward movement to lift the weight of the upper member off the catch, and the cord C is then drawn upon to raise the catch. The windlass is then turned backward and the upper member descends.

The parts of this device are of any suitable materials and proportions, and considerable change may be made in the construction without departing from the spirit of my invention.

What is claimed as new is—

In an extension-ladder, the combination, with the lower member having eyes in its side bars near their upper ends, an upper member sliding over said lower member, and a windlass for raising the upper member, the side bars of the latter having notches in their front edges, of a U-shaped catch, whose body stands across the face of the upper member and whose arms extend to the rear and pivotally engage said eyes, one of them being extended beyond its pivot and having a small eye, and an operating-rope leading from this eye to the ground, as and for the purpose hereinbefore set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MORRIS C. WILSON.

Witnesses:

C. F. NICHOLS,
R. J. MULLIGAN.