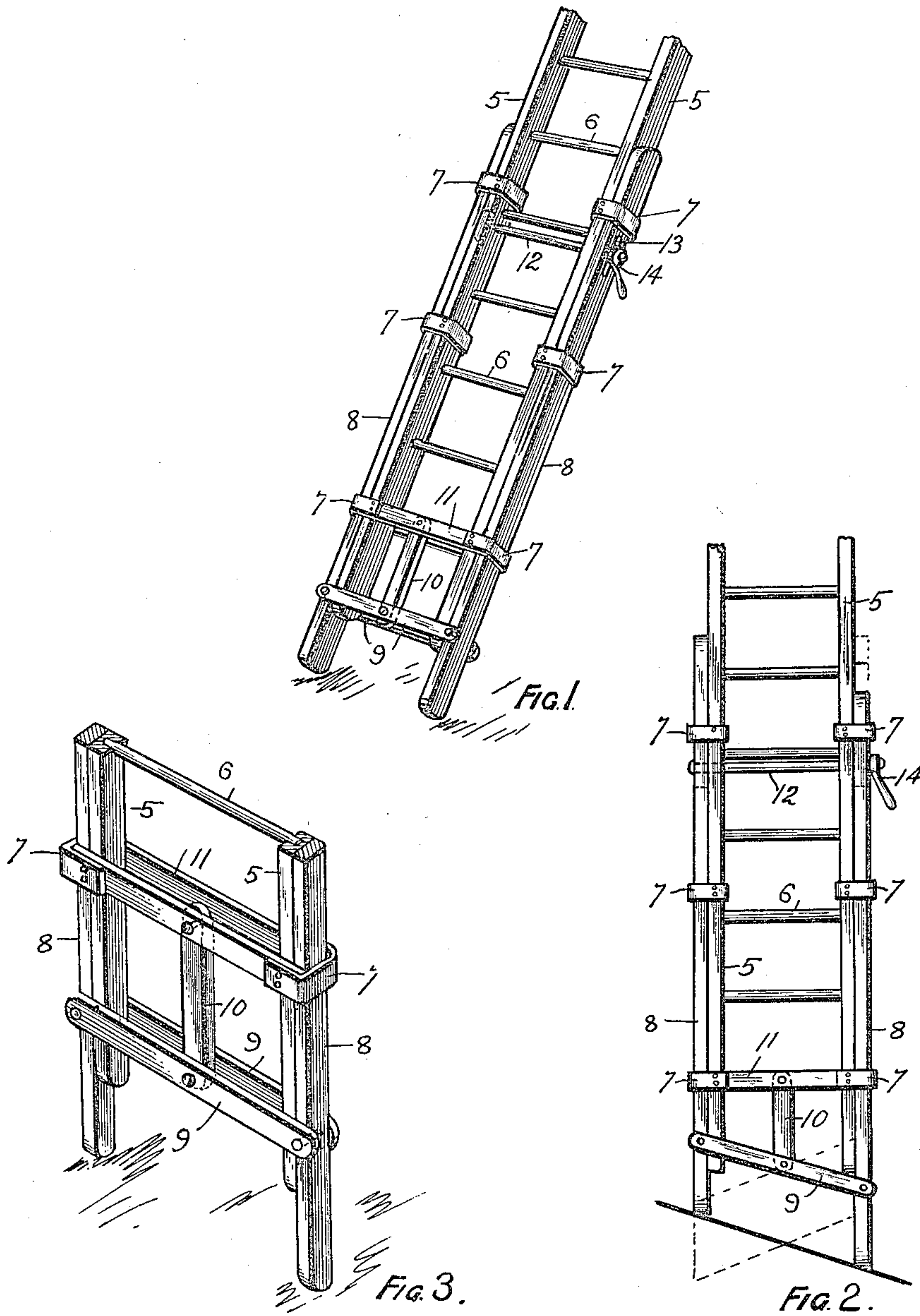


M. CROFTS.
LADDER.
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1,154,614.

Patented Sept. 28, 1915.



Witnesses.
H. L. Trimble.
E. Herow

Inventor.
M. Crofts.
by H. J. S. Bennett
Atty.

UNITED STATES PATENT OFFICE.

MAURICE CROFTS, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

LADDER.

1,154,614.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed August 18, 1914. Serial No. 857,332.

To all whom it may concern:

Be it known that I, MAURICE CROFTS, a subject of the King of Great Britain and Ireland, residing at 179 Elizabeth street, Sydney, in the State of New South Wales, Commonwealth of Australia, have invented certain new and useful Improvements in Ladders, of which the following is a specification.

10 This invention is devised with the object of providing a ladder which may be readily adapted to stand on sloping or uneven ground and eliminate the necessity for using packing pieces as is customary. And according to this invention the ladder is fitted at its basal end with a pair of supplementary rails adapted to slide independently to a limited extent in guides on the main rails and each capable of being extended downwardly to a greater extent than the other beyond the lower ends of the said main rails, and provided with means for retaining them in the desired relative positions; such supplementary rails as a frame being pivotally connected to the main frame for the support of the latter thereon.

30 The accompanying drawings to which reference will now be made depict ladder construction in accordance with this invention, and in the drawings:—Figure 1 is a perspective view of the ladder standing on level ground. Fig. 2 is a front elevation of the same standing on sloping ground, and Fig. 3 is another perspective view (on a larger scale) of the basal end of the ladder as in Fig. 1.

40 The main portion of the ladder is composed of rails 5. 5. and rungs 6. 6., and on the main rails are fitted guiding clips 7. 7. in which are slidably held the supplementary rails 8. 8. pivotally connected at their lower ends by the duplex transverse bar 9 which is pivotally attached by means of the element 10 to a duplex transverse bar 11 affixed to the main rails 5. 5., the said bar 11 preferably constituting the lower rung of the main portion of the ladder. A bolt 12 is disposed transversely across the ladder passing through holes in the main rails and a

slot 13 in each of the supplementary rails 50 and fitted at one end with a head and at the other end with a pinching nut 14.

When the ladder is to be used on level ground the main and supplementary rails are relatively disposed as in Fig. 1 and so retained by screwing up the nut 14. When, however, it is desired to adapt the ladder to stand on sloping ground the nut 14 is slackened off and either of the supplementary rails may be depressed to extend beyond the normal level as in Fig. 2, the bar 9 assuming an angular position, and the pinching nut 14 re-tightened. It is to be noted that a certain amount of clearance between the main and supplementary rails is necessary in order to allow for the shortening of the effective length of member 9 when in the angular position, and such clearance, also the length of the slots 13, are factors determining the extent of movement of the supplementary rails.

What I claim and desire to secure by Letters Patent is:—

In a ladder, the combination with the main side rails, of a double transverse bar secured adjacent to the lower ends of said side rails and extending therebetween and projecting beyond the sides thereof and forming a rung of the ladder, of a pair of supplementary side rails arranged on the outer side of the said main rails between the projecting ends of said transverse bars and extending beyond the lower ends thereof, a pair of transverse bars extending across the lower end of the ladder and having their ends pivotally secured to said supplementary side rails, and a link bar pivotally secured between the rigidly connected transverse bars at one end and at its other end pivotally connected between the pivotal transverse bars centrally of their length.

Signed at Sydney, New South Wales, this tenth day of July, 1914.

MAURICE CROFTS.

Witnesses:

CHAS. HATTON,
WM. NEWTON.