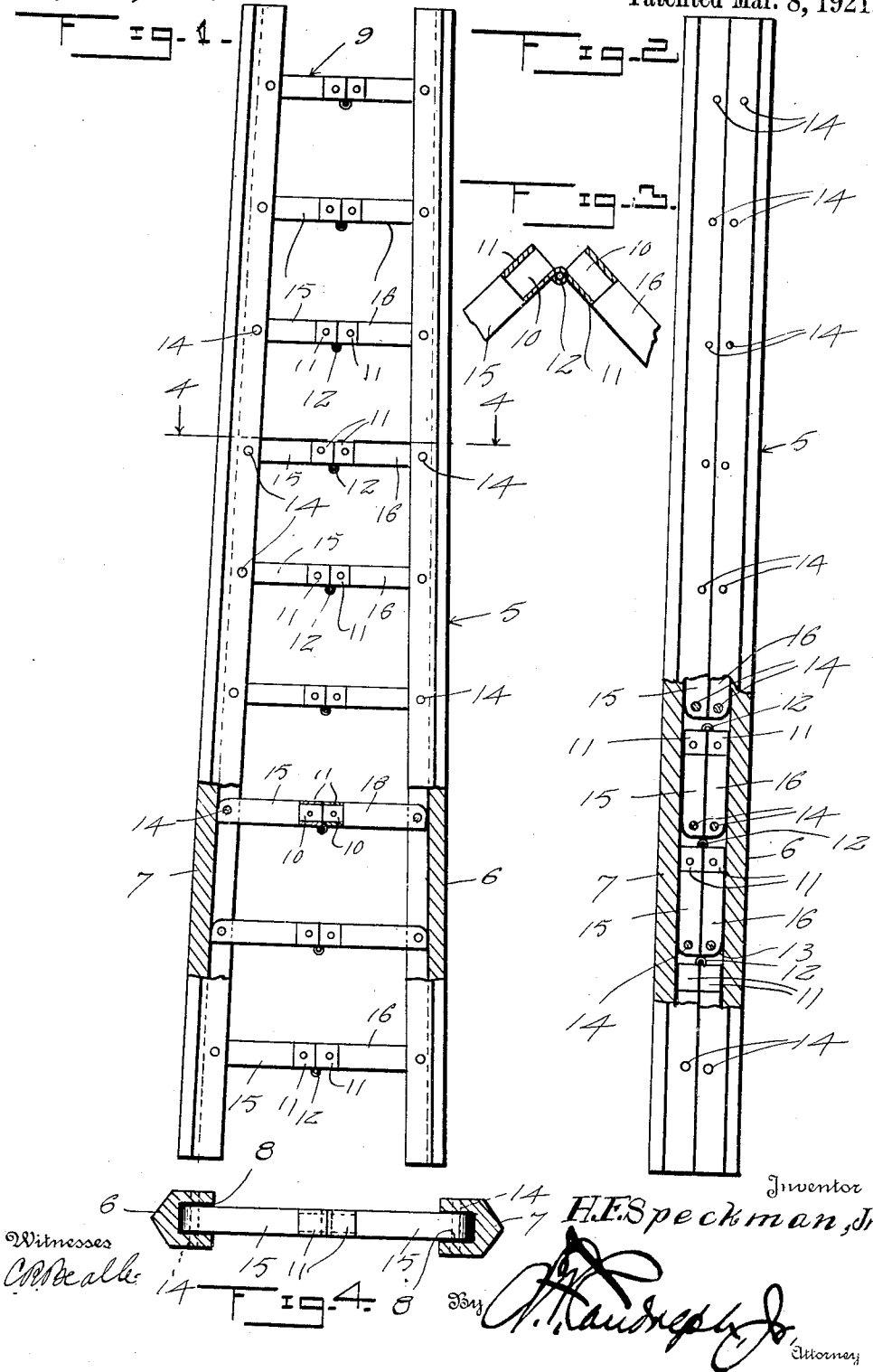


H. F. SPECKMAN, Jr.
FOLDING LADDER.
APPLICATION FILED JAN. 5, 1918.

1,371,125.

Patented Mar. 8, 1921.



UNITED STATES PATENT OFFICE.

HERMAN FRANK SPECKMAN, JR., OF CINCINNATI, OHIO.

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Specification of Letters Patent.

Patented Mar. 8, 1921.

Application filed January 5, 1918. Serial No. 210,476.

To all whom it may concern:

Be it known that I, HERMAN F. SPECKMAN, Jr., a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Folding Ladders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in folding step ladders and has for its object the provision of a ladder which can be easily and quickly folded into a small compact bundle or package so as to take up a comparatively little space when not in use.

A further object of my invention is the provision of a ladder having hinged sectional steps which are pivoted to uprights, the steps permitting the uprights to be moved into engagement with one another when the ladder is folded.

A further object of this invention is to provide a ladder of this character which will be simple, practical, and comparatively inexpensive in construction, and one that can be manufactured and sold at a low cost.

With these and other objects in view, the invention consists in the novel combination and arrangement of parts hereinafter more fully described and set forth in the claims hereto appended.

In the drawing—

Figure 1 is a front elevation of my improved ladder in position for use.

Fig. 2 is a front elevation of the ladder in folded position and partly broken away to illustrate the pivoted connection between the steps and uprights.

Fig. 3 is a fragmentary sectional view of the sectional steps illustrating the manner in which the sections are hinged together.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

Referring to the drawing, the numeral 5 indicates the ladder in its entirety which ladder consists of a pair of spaced standards 6 and 7. Each standard is provided on its inner face with a longitudinally extending groove or channel 8 which is substantially U-shaped in cross section.

A plurality of sectional steps 9 are pivoted between the side walls of the standards 6 and 7 respectively at a relatively spaced distance apart and as illustrated in Fig. 1 of the drawing. The sectional steps 9 each have their inner ends reduced as at 10 and fitted over each reduced end of each section is a metal collar 11. The collars of each section are hingedly connected as at 12. The outer ends of the rungs 9 are beveled or rounded off as at 13 and are pivotally secured between the side walls of the grooves or channels 8 by the bolts 14. The rounded ends 13 permit the folding of the sectional steps when the uprights are moved together. The steps 9 each comprise sections 15 and 16.

When the uprights are moved away from one another and the sections are extended the rounded ends thereof are moved into engagement with the rear walls of the grooves or channels 8.

Having thus described my invention, what I claim is:

1. In a ladder, stiles substantially U-shape in cross section to provide grooves and flanges, rung sections, pivots for the sections extending through said flanges, said sections being disposed at their outer ends in said grooves and having curved outer end portions to directly engage the base walls of the grooves to limit the movement of the sections in one direction and to permit pivotal movement of said sections in another direction for folding into the grooves, the inner ends of said sections being cut away to provide tenons and shoulders, hinges having tubular leaves receiving said tenons and abutting said shoulders, said leaves at the pintle ends being arranged to abut each other to brace the sections and prevent undue wear of the adjacent ends thereof.

2. In a ladder, a rung in foldable sections, the inner ends of said sections being provided with tenons and shoulders, hinges having tubular leaves receiving said tenons, said leaves abutting said shoulders and adapted to abut each other when the rung is unfolded to brace the sections and prevent undue wear of the adjacent ends thereof.

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

HERMAN FRANK SPECKMAN, Jr.

Witnesses:

H. W. HANLY,
Jos. REINHARD.