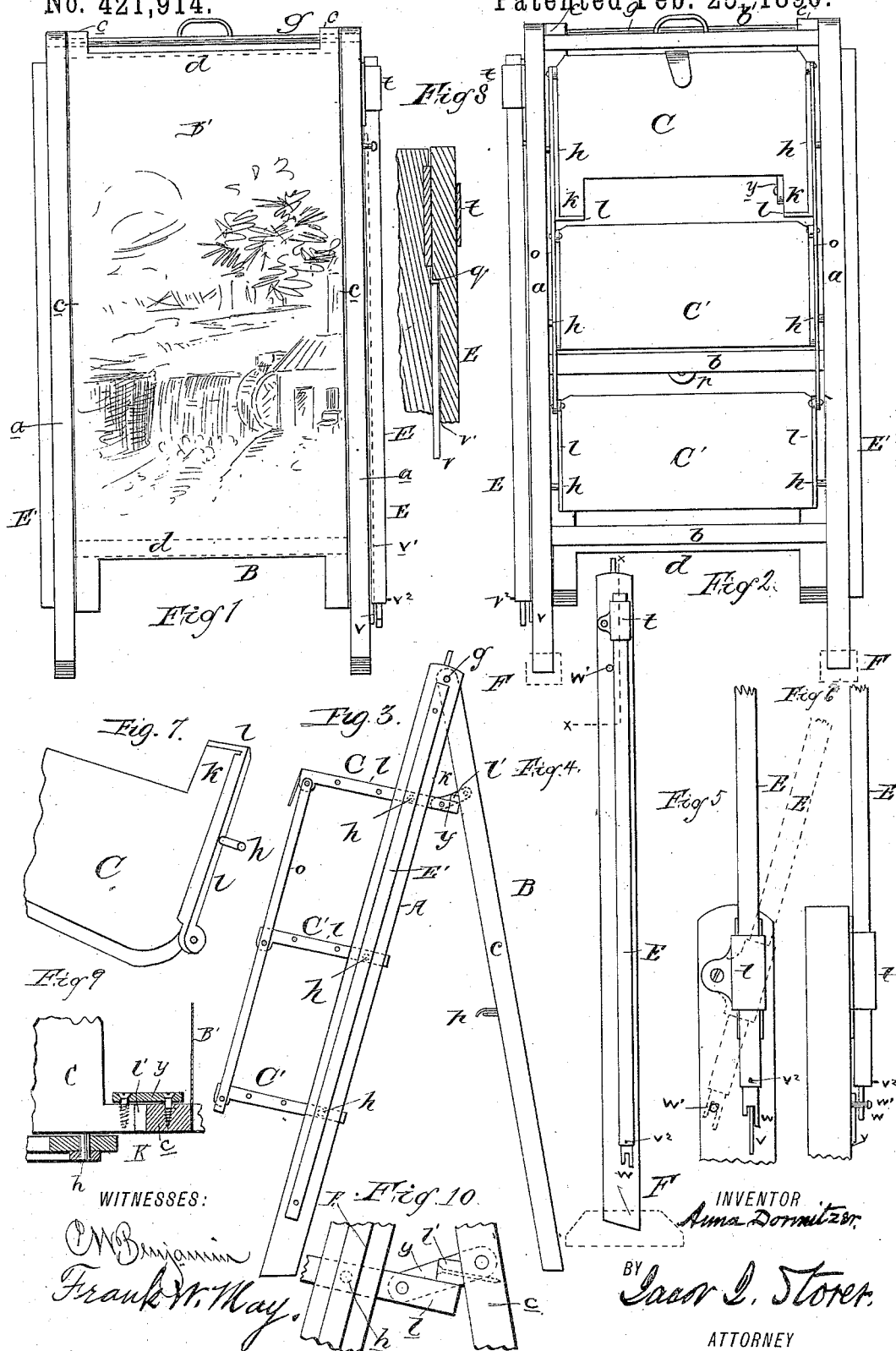


A. DORMITZER.
STEP LADDER.

Patented Feb. 25, 1890.



UNITED STATES PATENT OFFICE.

ANNA DORMITZER, OF NEW YORK, N. Y.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 421,914, dated February 25, 1890.

Application filed November 27, 1888. Serial No. 291,956. (No model.)

To all whom it may concern:

Be it known that I, ANNA DORMITZER, of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Ornamental Step-Ladders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention is designed as an improvement on the ornamental step-ladder for which Letters Patent of the United States Nos. 336,219 and 361,212 have been issued to me; and its object is to simplify and to increase the convenience and usefulness of the step-ladder by certain novel devices, which will be hereinafter fully set forth.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a rear elevation of the step-ladder folded in position for suspension from a wall. Fig. 2 is a front elevation of the same. Fig. 3 is a side elevation of the same open for use. Fig. 4 is a side elevation of the same folded up. Figs. 5 and 6 are enlarged elevations of a section of the same. Fig. 7 is an enlarged perspective view of a portion of the top step. Fig. 8 is a sectional elevation on line *x x*, Fig. 4. Fig. 9 is a detail in horizontal section above the top step on Fig. 3. Fig. 10 is an enlarged detail of a stop and link.

In the drawings, A represents the front section of the ladder, consisting of two parallel side bars *a a*, held together by top and bottom cross-bars *b b*, the four bars forming a rectangular frame, which may be strengthened by other cross-bars, as *b'*. The back section B is also a rectangular frame, composed of side and end pieces *c c d d*, respectively, and strengthened by other bars, if desirable. This section B is made narrower than the frame A by as much as the thickness of the side bars *a a*, and the two sections are hinged or pivoted together at their upper ends, as shown at *g*, so that the section B may be folded within the sides of the section A, as indicated in Figs. 1 and 4, or so that the two sections may be opened apart for use as a step-ladder, as shown in Fig. 3.

Secured on the back section B and forming

the outer or exposed face of the same, is a panel B', (shown in Fig. 1,) which may be of wood, paper, plush, silk, canvas, or other suitable material, with some decorative or ornamental design painted, printed, embroidered, or otherwise fixed on it, according to fancy; or said panel may be, *per se*, of ornamental material.

The steps C C' are pivoted at their ends, near the rear edges thereof, as indicated at *h*, between the side bars *a a*. The upper step C has near its ends two rear extensions *k k*, as shown in Figs. 2, 3, and 7. As thus far described this ladder is like that described in Patent No. 361,212, above referred to. One of my present improvements consists in securing a metal band *l* on the side edges of this upper step and its extensions *k*, and on the rear edges of the latter, for strengthening the same, as best shown in Figs. 2 and 7, and also in fixing stops *l'* securely to the side pieces *c c* of the section B for the step-extensions *k* to engage and hold against when the ladder is opened, as in Fig. 3. These bands *l* may have their edges lapped over on the upper face of the step C and extensions, as shown in Fig. 7, and also on the lower face thereof, thereby increasing the strength of the same, and when the steps are opened the bands on the rear edges of the extensions *k*, making contact with the stops *l'*, protect from wear the wood of the said extensions, and thereby increase the strength and durability thereof. The edges of all the steps may be bound with these metal straps or bands, as shown in Fig. 3, or only the upper step and rear ends of the extensions thereof.

All the steps C C' are connected with each other by two rods *o o*, which are secured to the ends thereof near their fronts, as in the case of the Patent No. 361,212, so that all the steps are synchronously closed and opened; and, as in said case, a catch *p* serves to hold the two sections of the ladder closed together.

On the outer face of one of the side bars of the ladder-section A, and near the top thereof, is pivoted a sleeve *t*, so that it may be swung laterally, as indicated by dotted lines, Fig. 5, and secured on the outer face of this same side bar and extending nearly the entire length thereof—say to the point

5 q —is a tongue or pin v , which together
 are designed to hold and guide a stout rod
 E, provided with longitudinal groove v' ,
 which also extends from the lower end of said
 rod only to the point q , as shown in Fig. 8,
 so that when said rod is pushed down in po-
 sition shown in Figs. 1, 2, and 4 the closed end
 of the groove v' makes contact with the top
 of the tongue v , thereby preventing the said
 10 rod from being pushed farther down, and said
 rod is provided near its lower end with a
 stop-stud v^2 , laterally inserted to prevent said
 rod from being pushed too far up through
 the sleeve t ; and when the rod E is moved up
 15 and swung in position, as indicated in dotted
 lines, Fig. 5, to serve as a support for any one
 using the steps, it is held in position by the
 engagement of a fork w , fixed on its lower end
 over a stud w' , projecting from a side of sec-
 20 tion A. On the opposite side of the section A
 a corresponding rod or beading E' is prefer-
 ably permanently fixed, in order to make the
 two sides both alike, as is shown in the Patent
 No. 361,212, above referred to.
 25 This ornamental step-ladder may not only
 be used for the purposes hereinbefore set
 forth, but also as a screen, for which purpose
 it is sometimes provided with feet F' , as shown
 in dotted lines, Figs. 2 and 4.
 30 The link y , pivoted at one end to the sec-
 tion B and at the other end to the inside of
 one of the rear extensions k of the step C,
 serves to push the section B into open position

when the steps are drawn downward and
 opened, and also serve to draw in and close 35
 said section when the steps are folded up.

Having thus described my invention, I claim
 as new and desire to secure by Letters Pat-
 ent—

1. In an ornamental step-ladder, the combi- 40
 nation, with the upper step, of stops l' , fixed in
 the inner face of the back section, substan-
 tially as herein shown and described, whereby
 the ladder-steps are held in operative posi-
 tion, as set forth.

2. The combination, with the step-ladder 45
 A B, of the pivoted sleeve t , stop w' , tongue
 v , and rod E, provided with groove v' , stud v^2 ,
 and fork w , all arranged and operating sub-
 stantially as set forth.

3. In an ornamental step-ladder, a sleeve 50
 pivoted to the side thereof, a grooved sup-
 porting-rod, substantially as herein shown
 and described, held in said sleeve and mov-
 able therein, said rod being adapted to be 55
 moved up and down on a tongue or pin fixed
 on a side of the ladder, as set forth.

In testimony that I claim the foregoing I
 have hereunto set my hand, in the presence
 of two witnesses, this 23d day of November, 60
 1888.

ANNA DORMITZER.

Witnesses:

JACOB J. STORER,

FRANK W. MAY.