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J. A. SKIBA

2,012,592

LADDER

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Fig. 1.

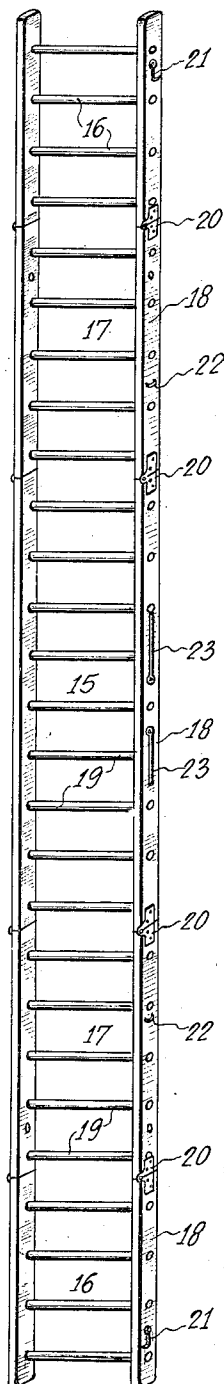


Fig. 2.

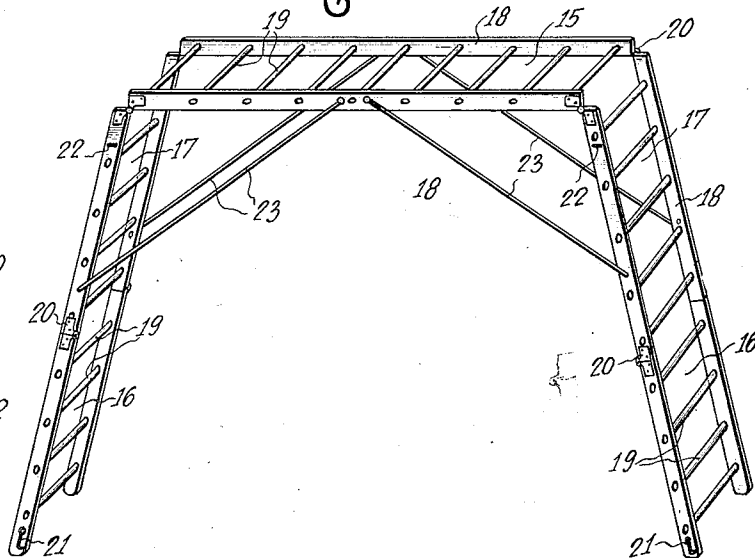


Fig. 3.

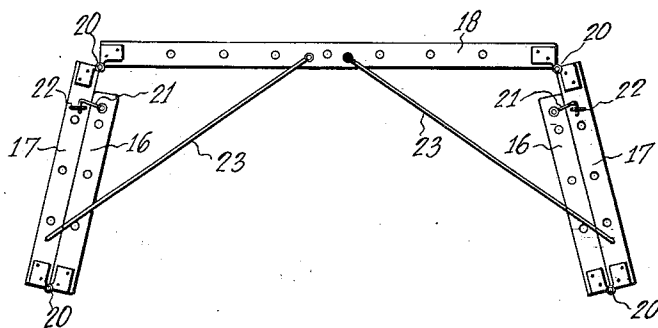
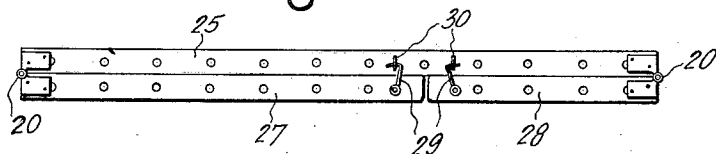


Fig. 4.



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LADDER

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2 Claims. (Cl. 228—2)

This invention relates to ladders, and more particularly to types capable of being extended at full length, folded compactly and also disposed to present stands of different heights.

5 An object of the invention is to provide a ladder having sectional sides connected by hinges which permit of close folding for storage or transportation, or of elongation to the limit of their lengths.

10 A further feature is in the provision of means whereby the ladder sections may be arranged as a table or stand, relatively high and low, means being provided to secure the requisite rigidity to carry any reasonable load when the parts are so positioned.

15 Another purpose is to produce a foldable ladder of light weight, adequate strength and pleasing appearance, suitable for household and work shop requirements.

20 These objects are attained by the novel construction and arrangement of parts hereinafter described and shown in the annexed drawing, forming a material part of this disclosure, and in which:—

25 Figure 1 is a perspective view of an embodiment of the invention as fully extended to constitute a ladder.

30 Figure 2 is a similar perspective view of the same as partially folded to constitute a stand of considerable height.

Figure 3 is a side elevational view showing the parts arranged to present a low stand or table.

Figure 4 is an edge view of a three part ladder close folded, as when not in use.

35 As shown in the drawing the ladder is composed of five sections, the central section 15 being slightly longer than the combined length of the end sections 16 and intermediate sections 17, which slightly exceed the length of the end sections.

40 Each section includes sides 18 having uniformly spaced rungs 19, and the several sections are connected by hinges 20, the pivots of which are disposed uniformly in register with the rear edges of the ladder sections sides, in the manner of a carpenter's rule, that is, to permit the sections to fold in one direction but resist pressure exerted in an opposite direction.

45 In order to retain the end and intermediate sections 16—17 when folded in close relation, freely pivoted hooks 21 are attached to the end sections 16 in a manner to engage in eyes 22 secured in the intermediate sections 17, these elements being in engagement when the device is assembled in the form of a table, as indicated in

55 Figure 3.

To retain the intermediate sections 17 in a suitable angular position for supporting the table or stand seen in Figure 2, two pairs of guy rods 23 may be attached at their respective ends to the side bars 18, near the center of their length, and the intermediate side bars 17, thus bracing the structures and preventing them from spreading under stress of weight applied.

5 In the modified form of ladder shown in Figure 4, three sections only are used, the longer, central section 25 having hinges 26 at each end by which are connected relatively long and short sections 27 and 28, here shown as closely folded and held in juxtaposition by pivoted hooks 29 and corresponding eyes 30.

15 Although the foregoing is generally descriptive of the preferred embodiments of this simple structure, it will be understood that the appended claims are intended to be sufficiently broad in their scope to cover such variations in construction as may come within their purview.

20 Having thus described the invention and set forth the manner of its construction and use, what is claimed as new and sought to secure by Letters Patent, is:—

25 1. A foldable ladder comprised of a rigid central section, two intermediate sections and two end sections, said central section being at least equal in length to the combined lengths of one of the intermediate and end sections all of said sections being of uniform width and thickness throughout their entire lengths, one way operating hinges connecting the side bars of the several sections and having their pivots in transverse alignment with the rear edges of the ladder side bars, means to retain said intermediate and end sections when in close proximity, and means to rigidly maintain said rigid central section level when supported by both pairs of intermediate and end sections arranged in angular relation.

40 2. A foldable ladder frame comprising a pair of sectional sides united by rungs, the central section being the greatest in length and the end sections being the shortest, intermediate sections slightly exceeding the length of the end sections, hinges connecting said sections, said hinges being foldable in one direction only, said end and intermediate sections when extended forming in connection with said central section, a high stand and said intermediate and end sections when 45 folded forming in connection with said central section a relatively low stand, both stands having a rigid level top formed by said central section.

JOHN A. SKIBA. 55