

Linder

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au Melldane

Inventor
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UNITED STATES PATENT OFFICE.

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IMPROVED LADDER.

Specification forming part of Letters Patent No. 42,219, dated April 5, 1864.

To all whom it may concern:

Be it known that I, E. F. OLDS, of South Lyon, in the county of Oakland and State of Michigan, have invented new and useful Improvements in Tables and Ladders Combined; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the ladder extended. Fig. 2 is a perspective view of the table. Fig. 3 is a perspective view of the ladder with the upper section placed horizontal and the free end supported by independent braces.

Like letters refer to like parts in the several views.

A A represent the side pieces of one section of the ladder, and B B represent the side pieces of the extension. The upper round, C, of the section A forms an articulation for section B, and the lower round, D, of the section B forms a similar point of articulation. The pieces A A extend above the round C a distance equal to the space between the rounds and has a semicircular depression or half-round hole in the end to receive the round E. The section B B in like manner extends below the round D a distance equal to the space between the rounds, and the ends of the side pieces are, like those of A A, provided with a semicircular depression or half hole for the reception of the round E. At the point of union between the sections A A and B B, I attach two short splice-bars, F F—one upon each side—the rounds C and D passing through both, as shown in the figures, and secured by a pin upon the outside to prevent them from getting displaced. When the two sections are brought into line, as in Fig. 1, the rod E is passed through the middle of the pieces F F, and, the ends of A A and B B being in contact, the half holes in the end of each embrace the round E and prevent the articulation or folding down, as in Fig. 3.

When the ladder is folded, as in Fig. 3, the round E is kept in place, as shown in the figure, for the purpose of keeping the bars F and B in line.

In Fig. 3 is represented an extension-brace, G H. The lower section of this brace may be

of one piece, or it may be branched, as shown at G' G'. The upper section, H, consists of a bar or rod, H, which has a gain in the top end that embraces the middle of the round I of section B B. Two branches, H', which arise from the middle of the bar H, extend upward upon the outside of the side pieces, B B, the round I passing through them, as shown in Fig. 3. The bar H is held in contact with the bar G by bands J, and through which the bar H moves up and down. It can be secured at any desired point by means of a pin, a. When the section B B is placed in a horizontal position, as seen in Fig. 3, the rounds of the ladder may be covered with boards or with the table K, Fig. 2. One end of this table is supported by adjustable legs L L, which pass through cleats in the end of the bed K, and which can be adjusted at any desired elevation by means of the pins b b. This table can also be used in connection with the extended ladder, as shown in Fig. 1, by bringing the free end to rest upon any desired round of section A A, in which position it will be firmly and securely held by the cleats c c being placed upon each side of the round, which prevents it from slipping off. The section A A is supported by stayed braces M M. These braces are hinged to the side pieces, A A, near the top by a double hinge, which allows the foot of the braces to be moved out or in, thus giving a lateral as well as a vertical support. These braces are stayed by the stay-rods N N, which are connected to the sections A A by means of an eye and stirrup-hinge, and to the braces M M by a staple and pin, d, as shown in Figs. 1 and 3. These can be adjusted to any desired position, either vertically or laterally. The adjustable brace G H can also be used for the extended form, if desired.

For the purpose of forming a secure platform upon which to stand in gathering fruit or for other purposes I construct and attach a staging, O. This consists of a board or plank, o, with hooks P extending upon each side. These pieces P hook over any round of the ladder, according to the height desired. Pins e e pass through the plank o upon each side of the round to hold the platform in place. Another pin, g, passes through the hook P below the round of the ladder to give further security to the platform. One of the hooks P is

extended upward, as shown at P', forming a support for a crane or pulley for raising or lowering weights, as fruits-baskets, paints, &c.

This ladder may be used in the form represented in Fig. 1, or as represented in Fig. 3, by the union of Figs. 1 and 2, or by the union of Figs. 2 and 3, or the brace G H may be used, as shown in Fig. 3, or with Fig. 1, as set forth.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The sections A and B B, when united by

means of the splice-pieces F and secured in an extended form by the round E, as specified.

2. The extension-brace G H, when used in combination with the sections A B, as and for the purpose set forth.

3. The platform O, when constructed and used as described.

E. F. OLDS.

Witnesses:

JOHN CRANDAL,
ALMON H. ISHAM.