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H. J. EVANS.

Combined Wheel-barrow and Step-ladder.

No. 119,339. Patented Sep. 26, 1871.

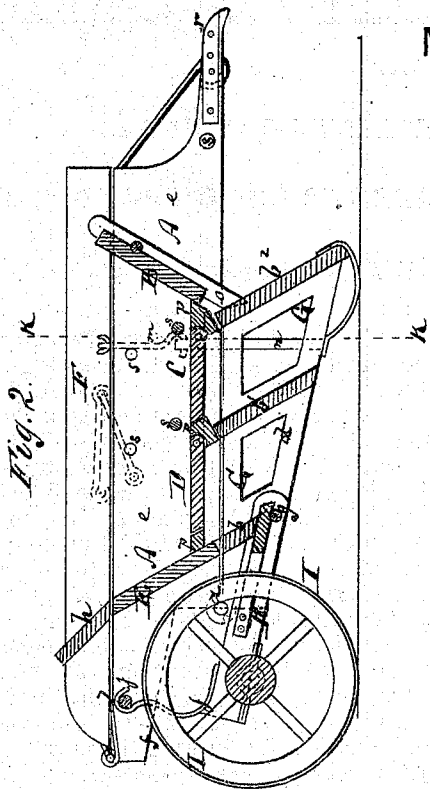


Fig. 3.

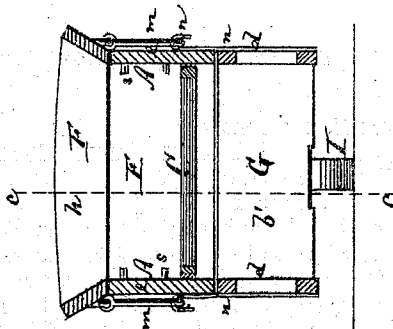
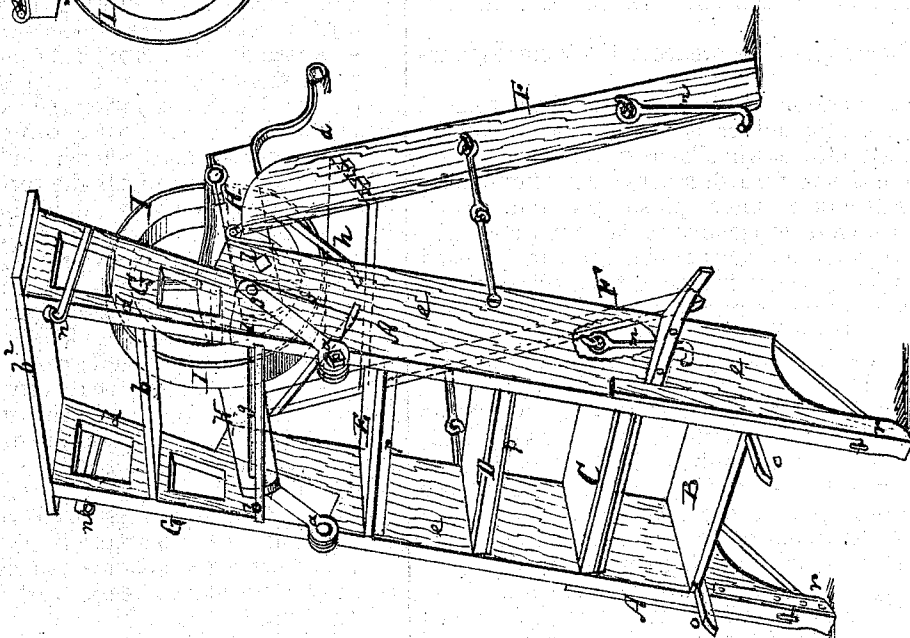


Fig. 1.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY JAMES EVANS, OF CHRISTIEVILLE, CANADA.

IMPROVEMENT IN COMBINED WHEELBARROWS AND STEP-LADDERS.

Specification forming part of Letters Patent No. 119,339, dated September 26, 1871.

To all whom it may concern:

Be it known that I, HENRY JAMES EVANS, of Christieville, in the county of Iberville, province of Quebec, and Dominion of Canada, have invented a new and Improved Combined Wheelbarrow and Step-Ladder; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a perspective view of my improved step-ladder. Fig. 2 is a vertical longitudinal section of the same converted into a wheelbarrow, the line C C, Fig. 3, indicating the plane of section. Fig. 3 is a vertical transverse section of the same on the line K K of Fig. 2.

Similar letters of reference indicate corresponding parts.

This invention relates to a new arrangement of folding step-ladder, so made that it can be converted into a wheelbarrow, and vice versa. The object is to furnish a convenient implement for gardeners, farmers, plasterers, and others. For gardeners especially it is to be specially advantageous, as the step-ladder can be used for removing the fruit from a tree, while in the barrow it can be conveyed to the house or barn. The invention consists in a new general arrangement of parts, whereby the stated combination is effected.

A in the drawing is the main or front frame of the step-ladder, provided with steps B, C, D, and E, of suitable number. F is the bracing or back frame of the ladder, hinged at the upper end to the upper end of the frame A. G is an upward extension of the frame A, hinged to it at *a*, and provided with three, more or less, steps, *b*, *b*¹, &c., as shown. The side-boards *d d* of the frame G are made wider at the upper than at the lower ends, the narrow lower ends fitting into recesses prepared on the side-boards *e* of the frame A. The faces *f* of these recessed portions of the boards *e* serve, in fact, as rests for and to sustain the frame G. By a bolt, *g*, passing through both side-boards *d*, a frame, H, is pivoted to G in line with the lower step *b* of the same, the frame H, in fact, constituting an enlargement of such lower step. I is a wheel hung to the rear extremity of the frame H. It rests upon a cross-plate, *h*, of the bracing-frame F. In order to convert this ladder into a wheelbar-

row, the frame G is first swung down so that its side-boards *d* lean against the front edge of the side-boards *e* of the frame A. The frame H is thereby swung so as to form an extension of G, spring-arms *j j*, which project from it, hooking over a cross-rod, *l*, of the frame A, to retain it (H) in place. Finally, the frame F is swung against the back of the frame A and connected, by hooks *m*, with hooks *n* of the frame G, whereby the parts are firmly drawn together. The lowermost step B of the frame A is pivoted and has projecting side-boards O O, which, when the frame G is folded against A, enter sockets provided for their reception at or near the upper step *b*² of the frame G, as shown in Fig. 2. The next two or more steps C D of the frame A are pivoted, and are, for forming the barrow, folded down against rigid cross-pieces *p* of said frame. The uppermost step E of the frame A constitutes now the front board of the barrow receptacle. The steps C D are its bottom, the step B its back-board, while the side-boards *e* of the frame A are its sides, as is clearly shown in Figs. 2 and 3. The frame F folds against the top of the receptacle and forms, owing to the inclined position of its side and upper cross piece *h*, flaring sides and front at the top of the barrow. The wheel I supports the barrow in front, and the wide end of the frame G constitutes its support in rear. The lower ends *r r* of the step-ladder frame A form the handles of the wheelbarrow. In this manner the step-ladder can be readily converted into a barrow, and vice versa. The steps B, C, and D, when used on the ladder, rest against pins *s s*, which project from the inner sides of the side boards *e*.

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

1. The jointed step-ladder, so made that it can be converted into a wheelbarrow, and vice versa, as set forth.

2. The frames A, F, G, and H, connected and arranged substantially as herein shown and described.

3. The steps B, C, and D of a step-ladder, pivoted to the side-boards so that they may constitute bottom boards and back of the barrow, as set forth.

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Witnesses:

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