

(No Model.)

H. G. HARRINGTON.
COMBINED WAGON STEP AND CHAIR.

No. 590,149.

Patented Sept. 14, 1897.

Fig. 1.

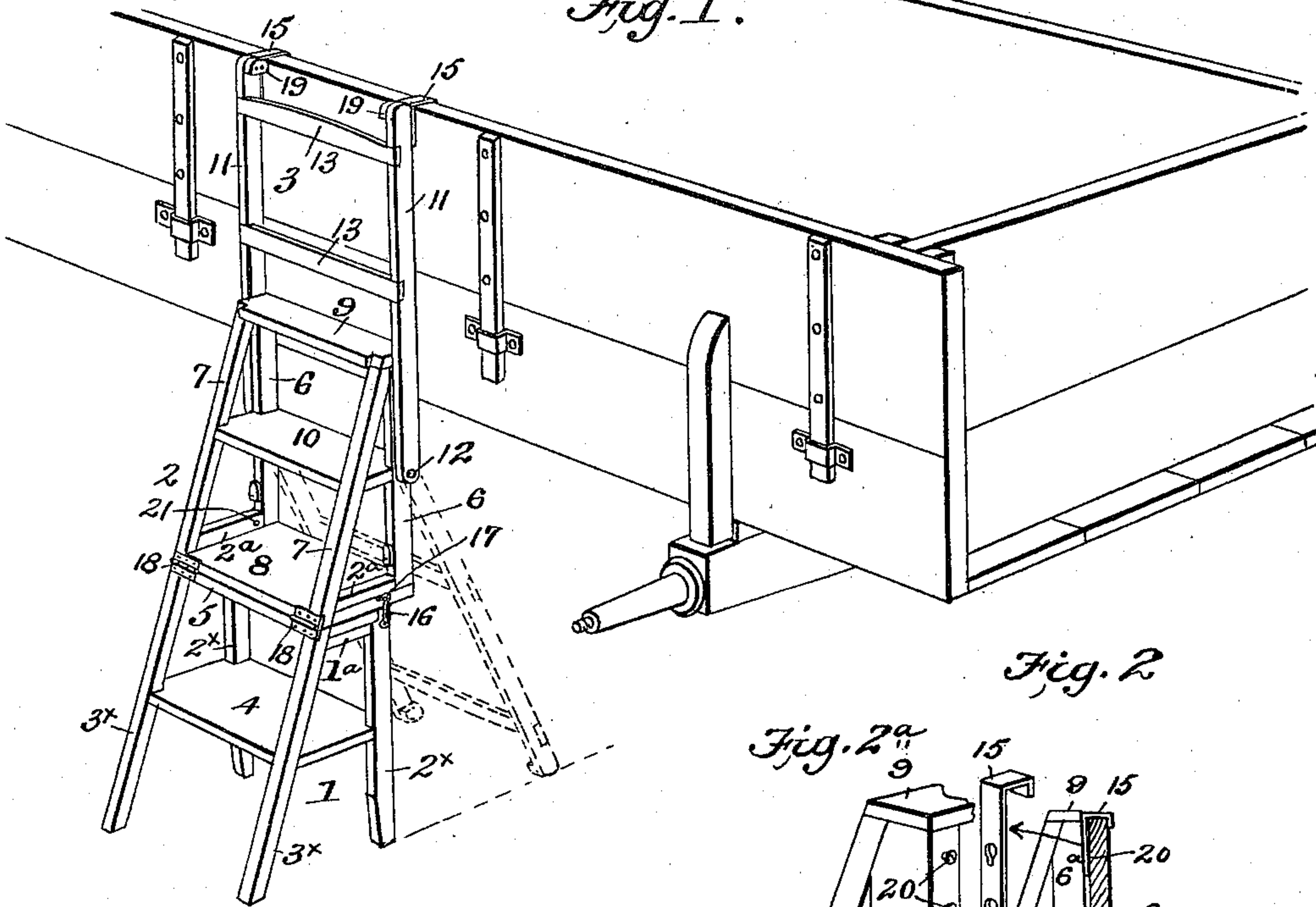


Fig. 2.

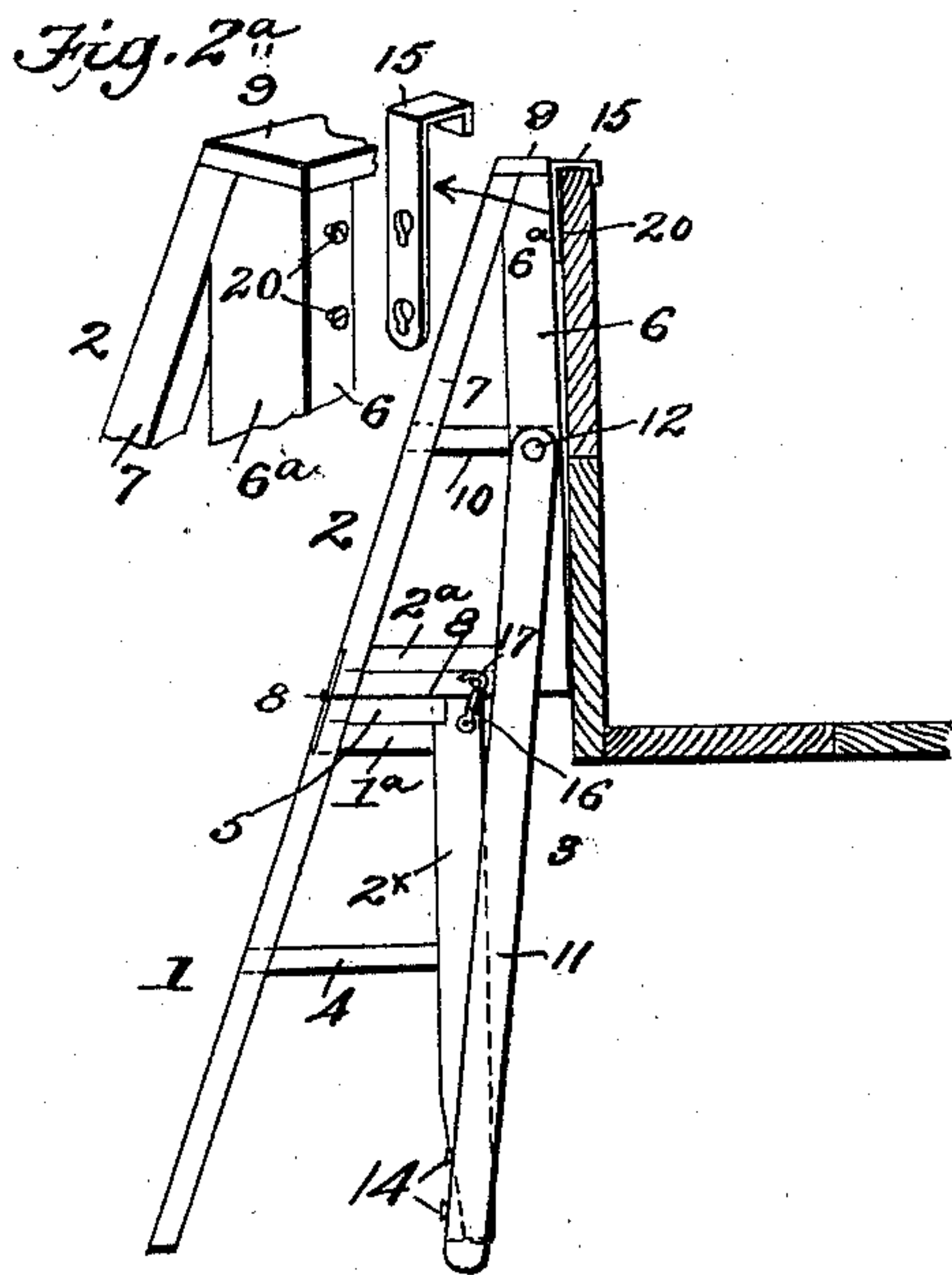


Fig. 3.

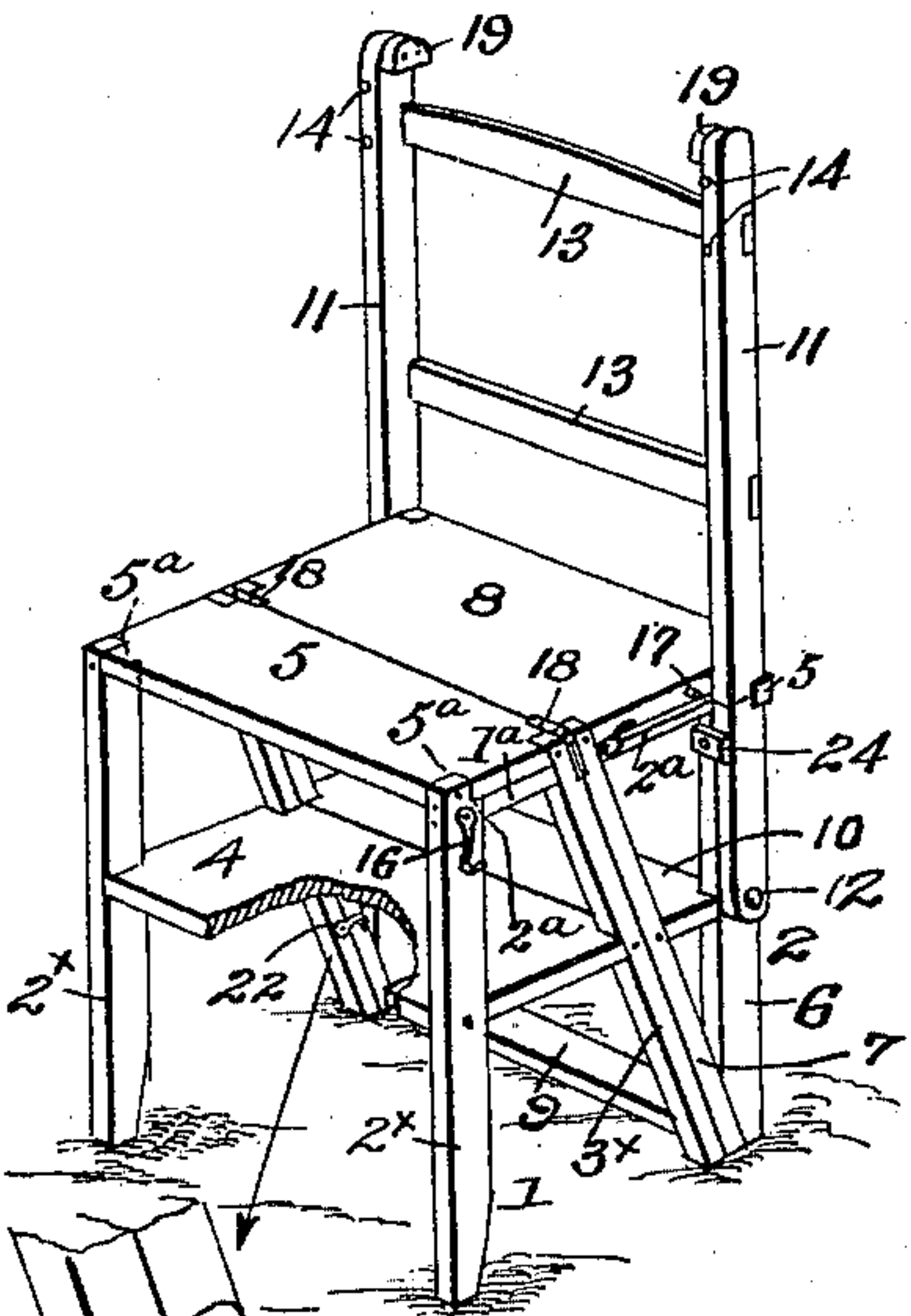


Fig. 4.

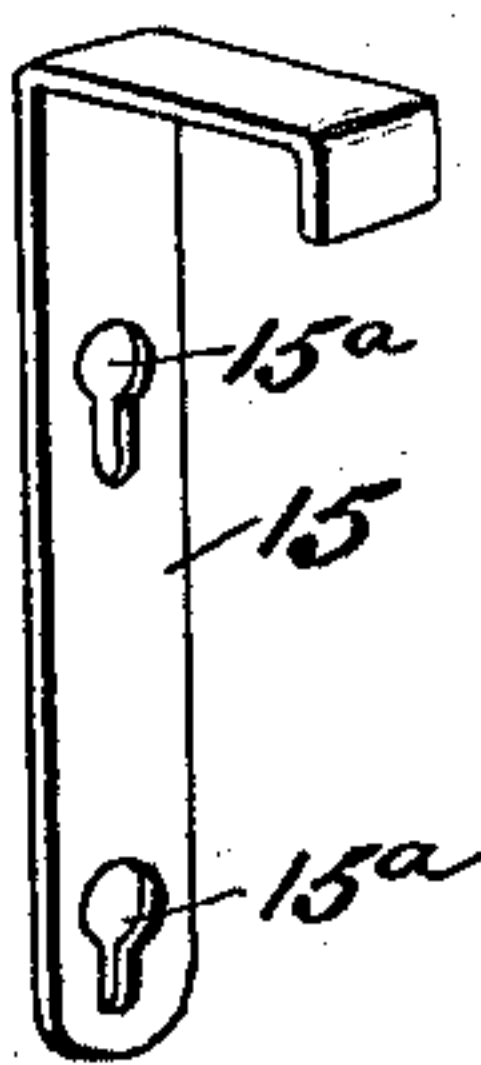


Fig. 5.

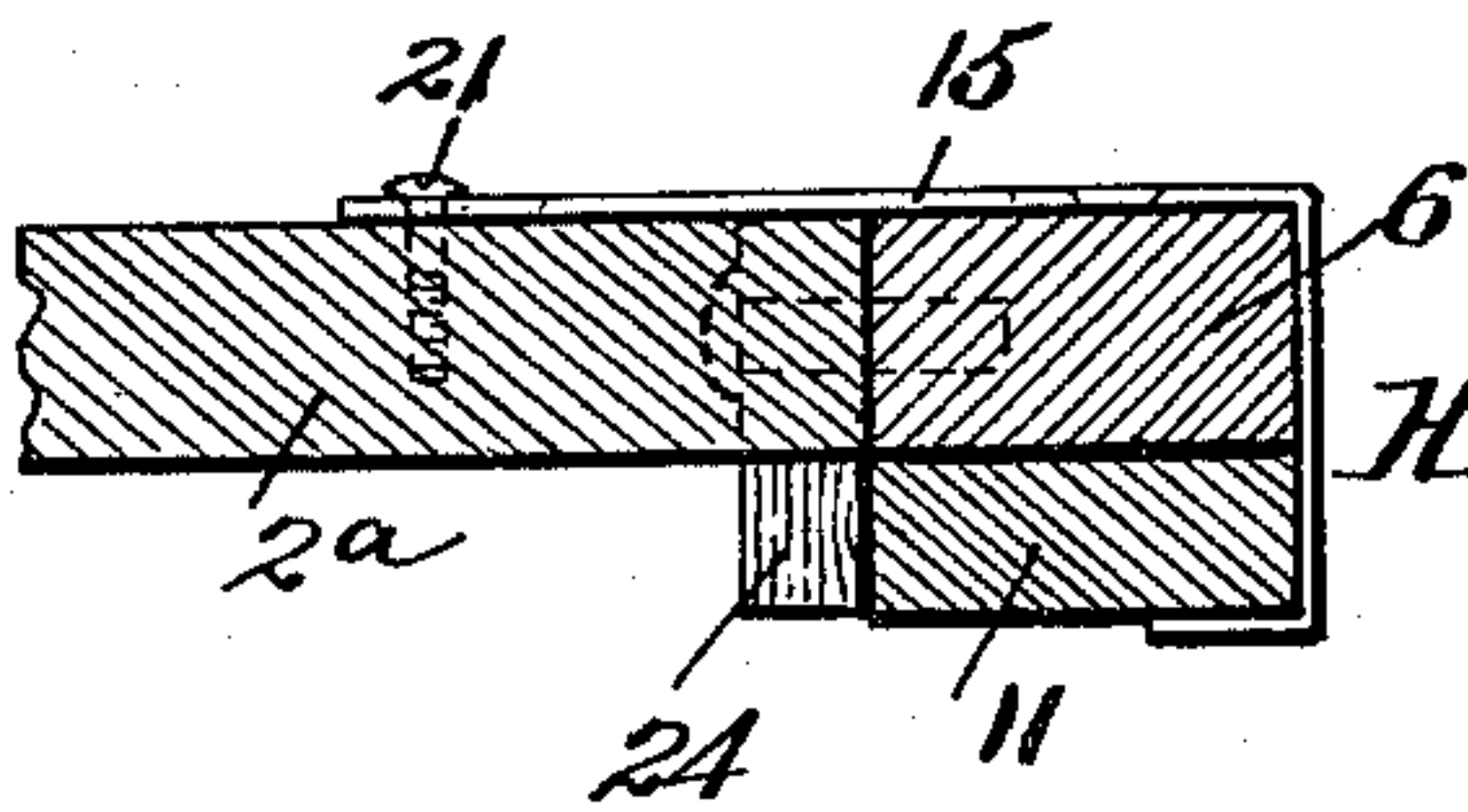


Fig. 3a
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UNITED STATES PATENT OFFICE.

HENRY GREEN HARRINGTON, OF MAGNOLIA, ARKANSAS, ASSIGNOR OF TWO-THIRDS TO BEN LEE JEAN AND JABEZ D. JAMESON, OF SAME PLACE.

COMBINED WAGON-STEP AND CHAIR.

SPECIFICATION forming part of Letters Patent No. 590,149, dated September 14, 1897.

Application filed May 12, 1897. Serial No. 636,191. (No model.)

To all whom it may concern:

Be it known that I, HENRY GREEN HARRINGTON, residing at Magnolia, in the county of Columbia and State of Arkansas, have
5 invented a new and Improved Combined Wagon-Step and Chair, of which the following is a specification.

My invention, which relates generally to portable wagon-steps, seeks to provide a step
10 of this character which can be used as a swinging wagon-step adapted to be hung upon the wagon-body or adjusted as an ordinary step or ladder.

My invention also seeks to provide an improved wagon-step having its parts capable of such adjustment as to produce either a hanging wagon-step or a step-ladder used independent of the wagon and which can be folded
15 into a convenient seat.

The invention consists in such novel features of construction and peculiar combination of parts, as will be first described in detail, and then be specifically pointed out in the appended claims, reference being had to
20 the accompanying drawings, in which—

Figure 1 shows the step extended its full length standing on the ground, with its upper end hooked onto the wagon-bed, the upper section being shown swung down in dotted
25 lines to form a support for the step when used independent of the wagon. Fig. 2 is a view of the step with the upper section turned down and the parts adjusted to form a hanging step. Fig. 2^a is a detail view illustrating one of the interchangeable attaching
30 devices. Fig. 3 is a view showing my improved step folded to form a chair. Fig. 3^a is a detail view showing one of the connecting devices. Fig. 4 is a view of one of the interchangeable hooks, and Fig. 5 is a detail sectional view on line 5 5 of Fig. 3.

In its practical construction my improved wagon-step comprises a lower section 1, a middle section 2, and an upper section 3,
35 which are so connected that the several parts can be readily adjusted to produce a standing step or ladder, a hanging step, or a chair. The lower section 1 consists of a pair of vertical back legs 2^x, a pair of inclined front
40 legs 3^x, the lower step member 4, and the top

or upper step 5, which has half-lock notched ends 5^a, to engage and rest in the half-lock ends 2^a of the legs 2^x, the front end of the step 5 being secured to the upper ends of the front legs 3^x, as shown. The middle section
55 is also formed of a pair of vertical legs 6 and inclined legs 7, which are joined at their diverged ends by a wide combined step and seat member 8, and at their other end by the narrow step 9, they being also joined by an
60 intermediate step 10. The upper section consists of a pair of side arms 11, pivotally connected at one end by the bolt and nut 12 to the legs 6, their upper ends being connected by transverse members 13, which form the
65 back-supports when the parts are adjusted for use as a chair. The back of the upper ends of the arms 11 have each a pair of headed studs 14 14 to receive the interchangeable
70 hook members 15, which have keyhole-slots 15^a, whereby they can be readily secured to and detached from such studs. Hooks 16 are secured to the back legs 2^x, which engage studs 17 on the ends of the member 8, the
75 purpose of which is to hold the bottom and middle sections together when the parts are adjusted as shown in Fig. 1.

So far as described it will be readily understood by reference to Figs. 1 and 2 that when the lower, the middle, and the upper sections
80 are adjusted as in Fig. 1 the inclined legs 3^x and 7 (which are joined by strap-hinges 18) form continuous front inclined side members for the step-ladder, the lower section forming the ground-rest, while the upper section
85 extends up a sufficient distance to hook over the sides of the wagon-body, it being obvious that by turning the widest part of the middle section on the top of the lower section such middle section will project in-
90 ward of the lower section and allow for the proper placing of the step relatively to the wagon-body, so as to give the same the proper forward inclination thereto.

When desired to use the appliance as a
95 portable step-ladder, the top section is swung down to the position shown in dotted lines in Fig. 1, such section when in such position forming the back support for the step-ladder.

When it is desired to use my improvement 100

as a hanging step, the parts are adjusted as shown in Fig. 2, the upper section in this instance being swung down and closed in under the legs 2^x, held locked to this position by cleats 19 on the inner face of the upper ends of the arms 11. By connecting the upper section to the lower section, as shown in Fig. 2, the upper section 11 will aid the hooks 16 in holding the lower and middle sections locked together. The interchangeable hooks are then fitted to headed studs 20 20, secured at the ends 6^a of the legs 6, which then form the supports by which the ladder is supported from the side or end of the wagon-bed. The wide end of the section 2 and the narrow end of section 1 have cross-pieces 2^a 1^a, and the pieces 2^a have on their inner face, at a suitable point, (see Fig. 5,) a headed stud 21.

To adjust the parts to form a chair, the middle section is swung down back of the lower section, the inclined legs 3^x and 7 in this adjustment lapping and forming forwardly-inclined side braces, they being held together by the hooks and studs 22 23. When in this position the top step members 5 and 8 form the chair-seat.

The upper section forms the chair-back, and is held from swinging backward by the interchangeable hooks, which in this adjustment of parts are secured to the studs 21, (see Fig. 5,) their hook ends clamping over the back of the legs 6 and the arms 11, button-stops 24 being secured to inner faces of legs 6, which when turned out prevent the arms 11 swinging forward.

From the foregoing description, taken in connection with the drawings, the advantages of my improvement will readily appear. The several parts are of a very simple and inexpensive nature, and owing to their peculiar arrangement and connection can be almost instantly converted into an ordinary step-ladder, into a hanging step, or into a chair. By connecting the upper section to the middle section and providing the same with cleats such upper section will be positively held locked to the lower and middle sections, and thereby hold such sections in a proper closed condition for use as a swinging wagon-step.

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

1. A combined chair and wagon-step, comprising a middle and a lower section hinged together, said sections when swung upon each other forming a series of steps and when folded forming the body portion of a chair, an upper section hinged to said middle section, said upper section serving as a back for the chair or an extension for the steps, and interchangeable attaching devices capable of being attached to the middle and upper sections, as and for the purpose set forth.

2. A wagon-step, having the upper end of its rear supporting members provided with

headed studs, an upper section hinged thereto, having cleats at the upper ends, said section being adapted to swing down to bring the cleats in a locked engagement with the lower end of the rear supporting-legs, said upper hinged section having headed studs, and the interchangeable hook members, all being arranged substantially in the manner shown and described.

3. A wagon-step, comprising a lower and a middle section hinged together, each having inclined legs adapted when the sections are swung upon each other to form the continuous inclined sides of the steps, and an upper section hinged to the middle section, adapted when swung down and closed against the lower section to lock the middle and lower sections from swinging open, and when swung up to form an extension of the step, as set forth.

4. A combined wagon-step and chair, comprising a lower and a middle section hinged together, each having vertical and inclined legs, and step portions, the middle section having headed studs, and being adapted when folded down to form the rear part of the chair, the hinged upper or back section, the interchangeable hooks, detachably secured to the said headed studs, having the hook ends held to engage the side arms of the back section and hold them from swinging backward, and means secured to the middle section to hold the said back section from swinging forward, all being arranged substantially as shown and described.

5. An improved combined wagon-step and chair, consisting of a lower and middle section, hinged together to form a step when folded up and a chair-body when folded down, said middle section having headed studs, under its seat portion and similar studs at its converged end, an upper section hinged to the middle section having cleats and headed studs at the upper ends, and the interchangeable hooks having key-slots, all being arranged substantially as shown and for the purposes described.

6. A combined chair and wagon-step, comprising a lower and a middle section hinged together to form a series of steps when extended and a chair when folded one upon the other, an upper section hinged to said middle section, and means for holding the said sections extended and folded, as and for the purpose set forth.

7. A device of the character described, comprising the lower, middle, and upper sections hinged together and forming a ladder when extended and a chair when folded, and interchangeable attaching devices arranged for connection with the said sections, as and for the purpose set forth.

8. A device of the class described, comprising the lower and middle sections hinged together, said sections when swung upon each

other forming a series of steps and when folded forming the body portion of a chair, an upper section hinged to said middle section and serving as an extension of the steps and a back for the chair, and means by which
5 both the upper and middle sections may be connected to a support and the upper section rigidly connected with the middle section, as and for the purpose set forth.

HENRY GREEN HARRINGTON.

Witnesses:

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