

(No Model.)

2 Sheets—Sheet 1.

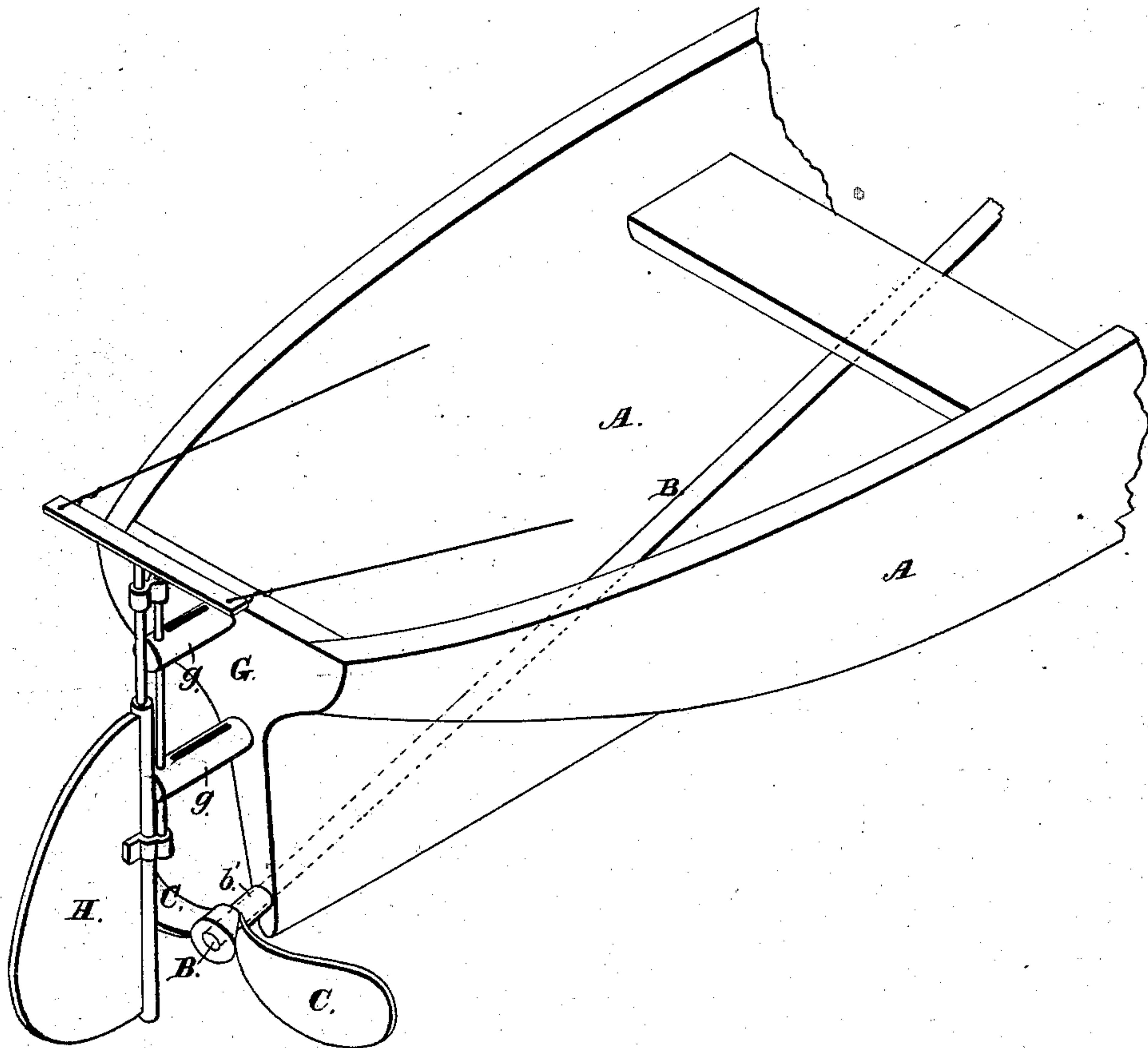
H. N. STAATS.

Apparatus for Propelling Row Boats.

No. 235,822.

Patented Dec. 21, 1880.

Fig. 1



WITNESSES:

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Jas. E. Hutchinson.
Henry C. Hazard.

INVENTORY-

INVENTOR.
H. H. Staats, by
Geo. S. Prindle, his Att'y

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

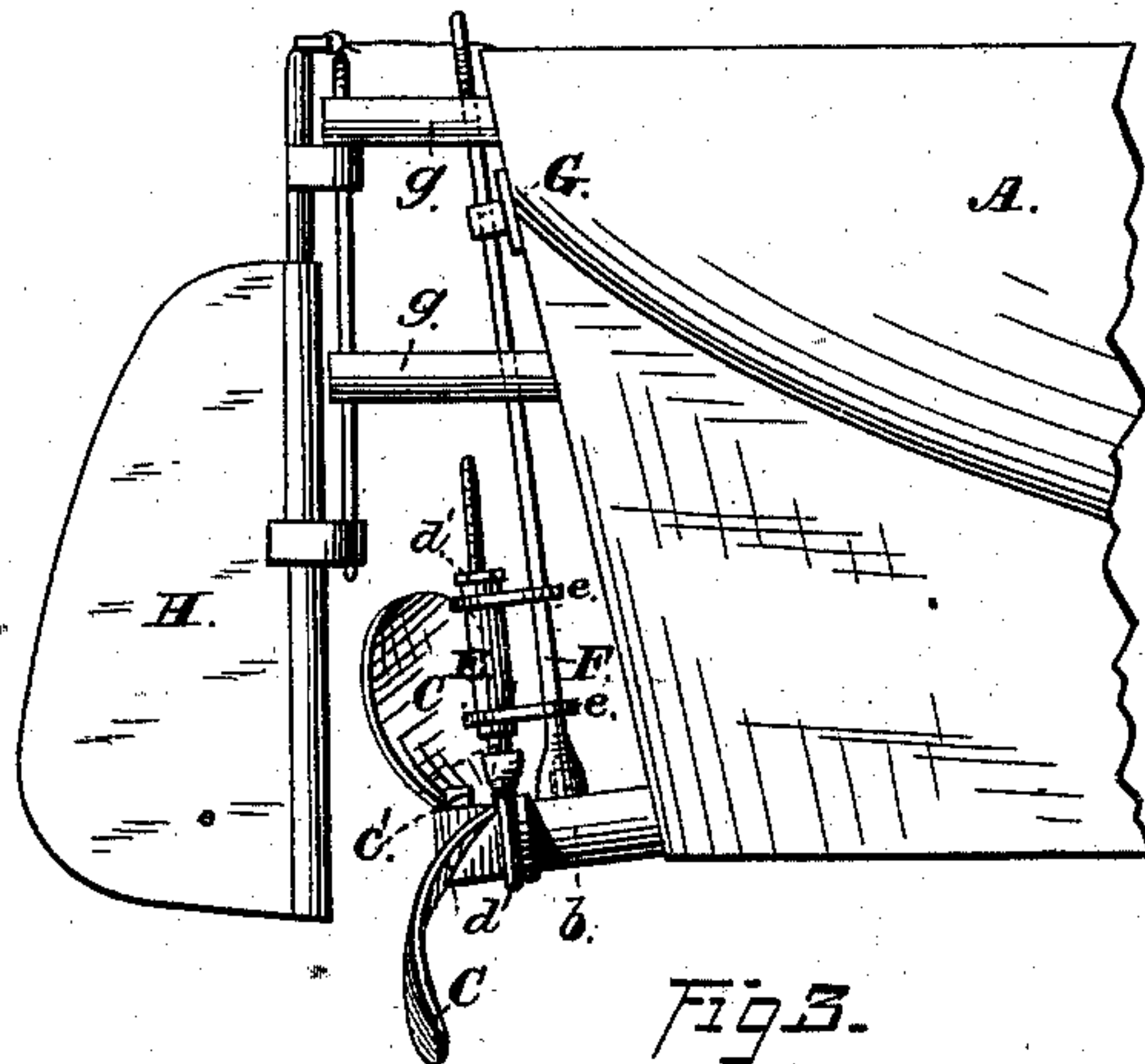


Fig. 3.

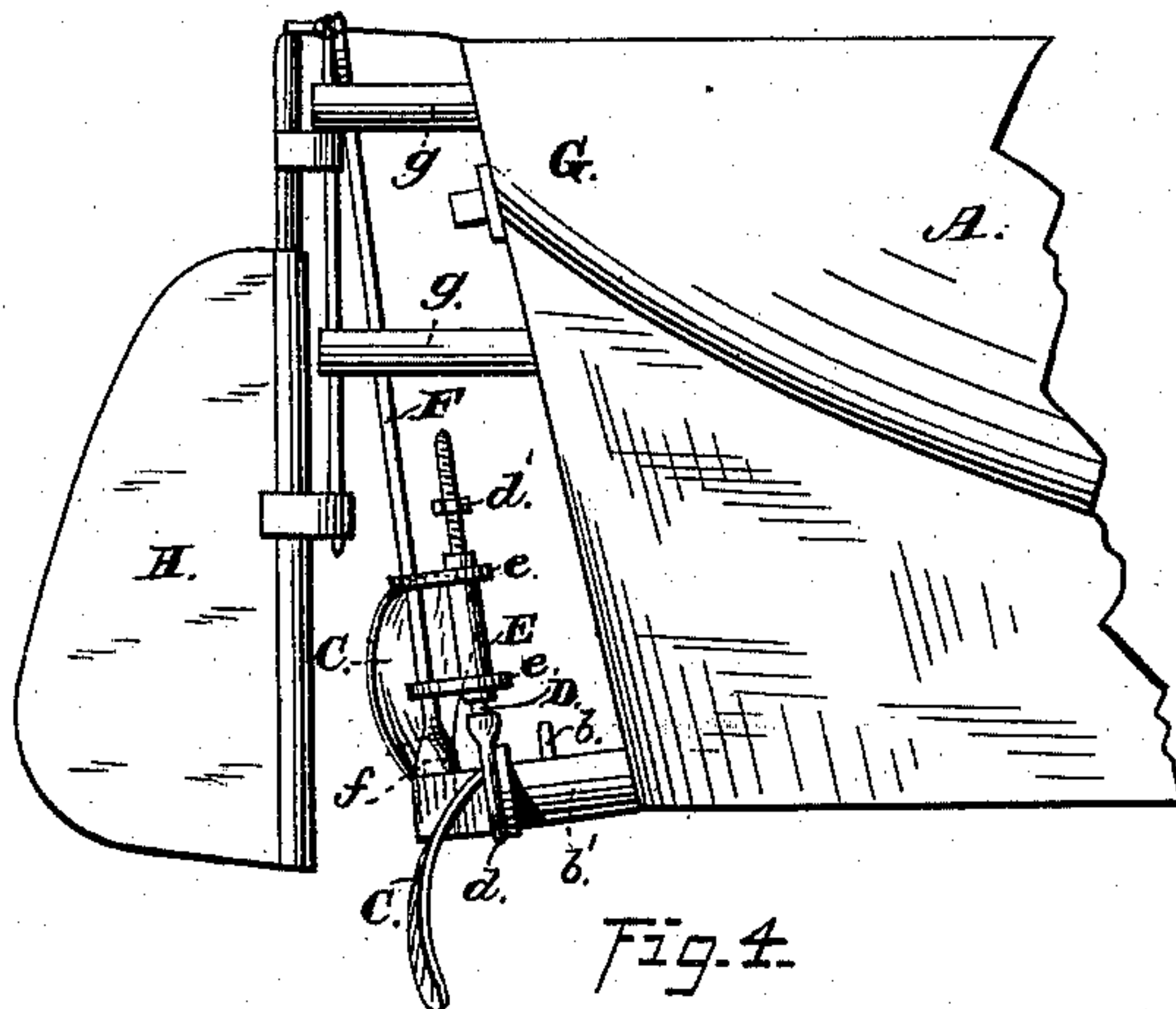
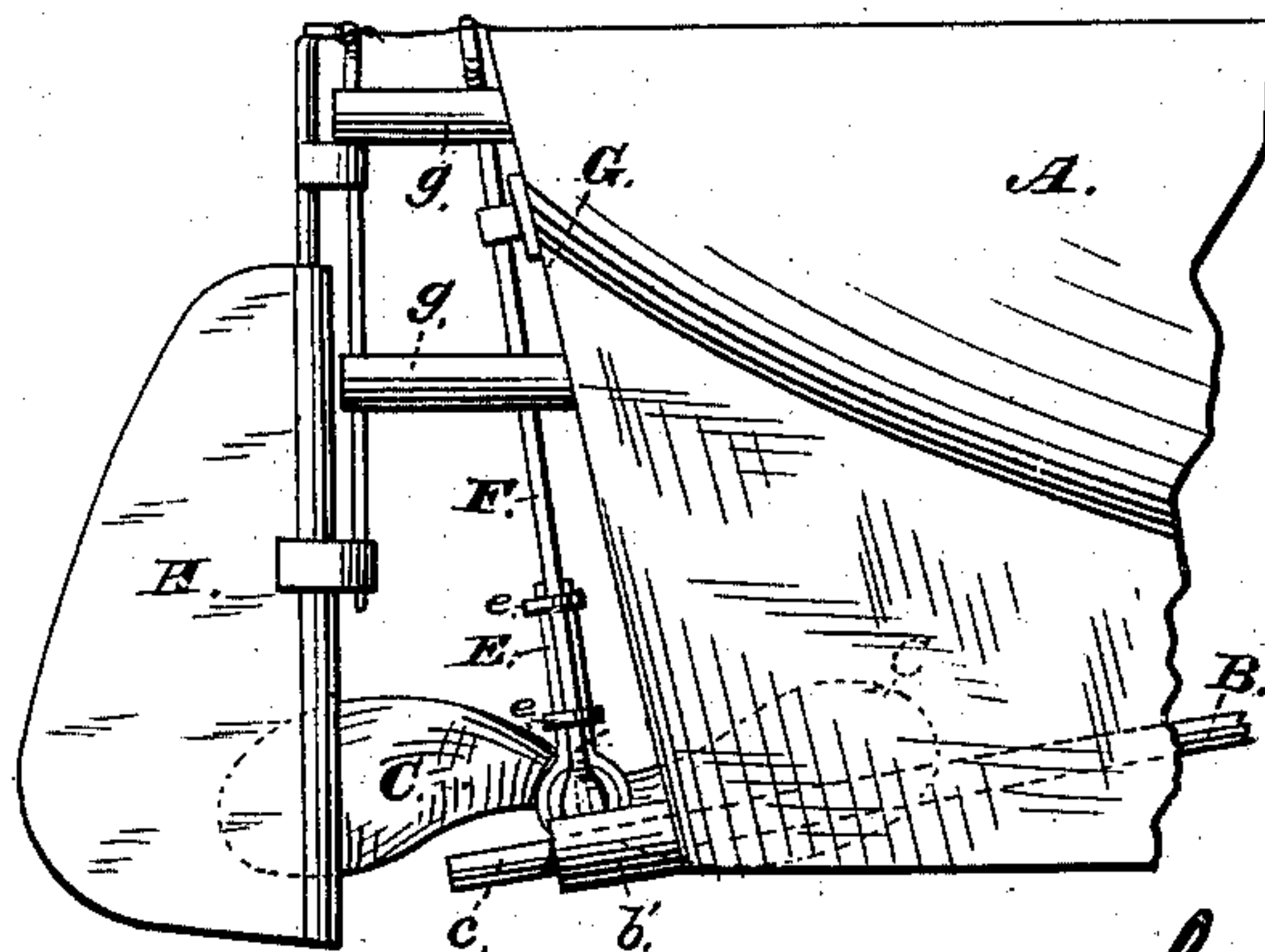


Fig. 4.



WITNESSES=

Jas. E. Hutchinson.
 Henry C. Hazard.

INVENTOR-

H. N. Staats, by
 Geo. S. Prindle, his Atty

UNITED STATES PATENT OFFICE.

HENRY N. STAATS, OF AUBURN, NEW YORK.

APPARATUS FOR PROPELLING ROW-BOATS.

SPECIFICATION forming part of Letters Patent No. 235,822, dated December 21, 1880.

Application filed October 8, 1880. (No model.)

To all whom it may concern:

Be it known that I, HENRY N. STAATS, of Auburn, in the county of Cayuga, and in the State of New York, have invented certain new and useful Improvements in Apparatus for Propelling Row-Boats; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the rear portion of a boat provided with my propelling mechanism. Fig. 2 is a side elevation of the stern of said boat, showing the propeller in its normal position. Fig. 3 is a like view of the same, showing the unshipping mechanism in position for use; and Fig. 4 is a perspective view of said parts after said propeller has been unshipped.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to render practicable the use of a screw-propeller upon small boats; and it consists in the means employed for unshipping the propeller-wheel, substantially as and for the purpose herein-after specified.

In the annexed drawings, A represents a boat provided within its interior with a propeller-shaft, B, which projects through the stern of said boat and has secured to or upon its end a screw-propeller, C, of usual form, which, by the rotation of said shaft, will cause said boat to move longitudinally, the direction in which said shaft and propeller are rotated determining the direction in which said boat will be moved.

In order that the propeller C may be readily unshipped when liable to become injured by contact with the ground in shallow water the following-described mechanism is employed, viz: Journaled by means of an encircling strap, *d*, upon the hub *c* at the front side of the propeller C is a rod, D, which extends upward, and at its upper end is thread-

ed and provided with a nut, *d'*. Loosely encircling the rod D above the strap *d* is a sleeve, E, which, by means of two horizontal lugs, *e* and *e'*, is connected with a rod, F, that extends from or near the top of the stern G downward through two rearward-extending bars, *g*, that furnish pivotal bearings for the rudder H, and has at its lower end a socket, *f*, that fits over a stud, *b*, which projects upward from the rear bearing, *b'*, of the propeller-shaft B. The socket *f* is made to fit the set-screw *c'*, which confines the propeller C upon its shaft B, and when it is desired to unship said propeller the rod F is raised from off the stud *b* and moved rearward until it can be engaged with said set-screw, when the latter is loosened by the turning of said rod, and said propeller slips off from said shaft, after which said rod is returned to engagement with said stud *b*, and said propeller is permitted to swing loosely from the rod D. In order to permit of the rearward motion of the rod F the bars *g* are slotted longitudinally a distance equal to the movements of said rod.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

As a means for unshipping the propeller-wheel C, the strap *d*, journaled upon the hub *c* of said wheel, the rod D, extending upward from said strap and having upon its upper threaded end the nut *d'*, the sleeve E, and the rod F, provided with the socket *f* and connected by means of the lugs *e* and *e'* with said sleeve, said parts being combined with each other, the bars *g*, the stud *b*, and the set-screw *c'*, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of August, 1880.

HENRY N. STAATS.

Witnesses:

GEO. S. PRINDLE,
HORACE T. COOK.