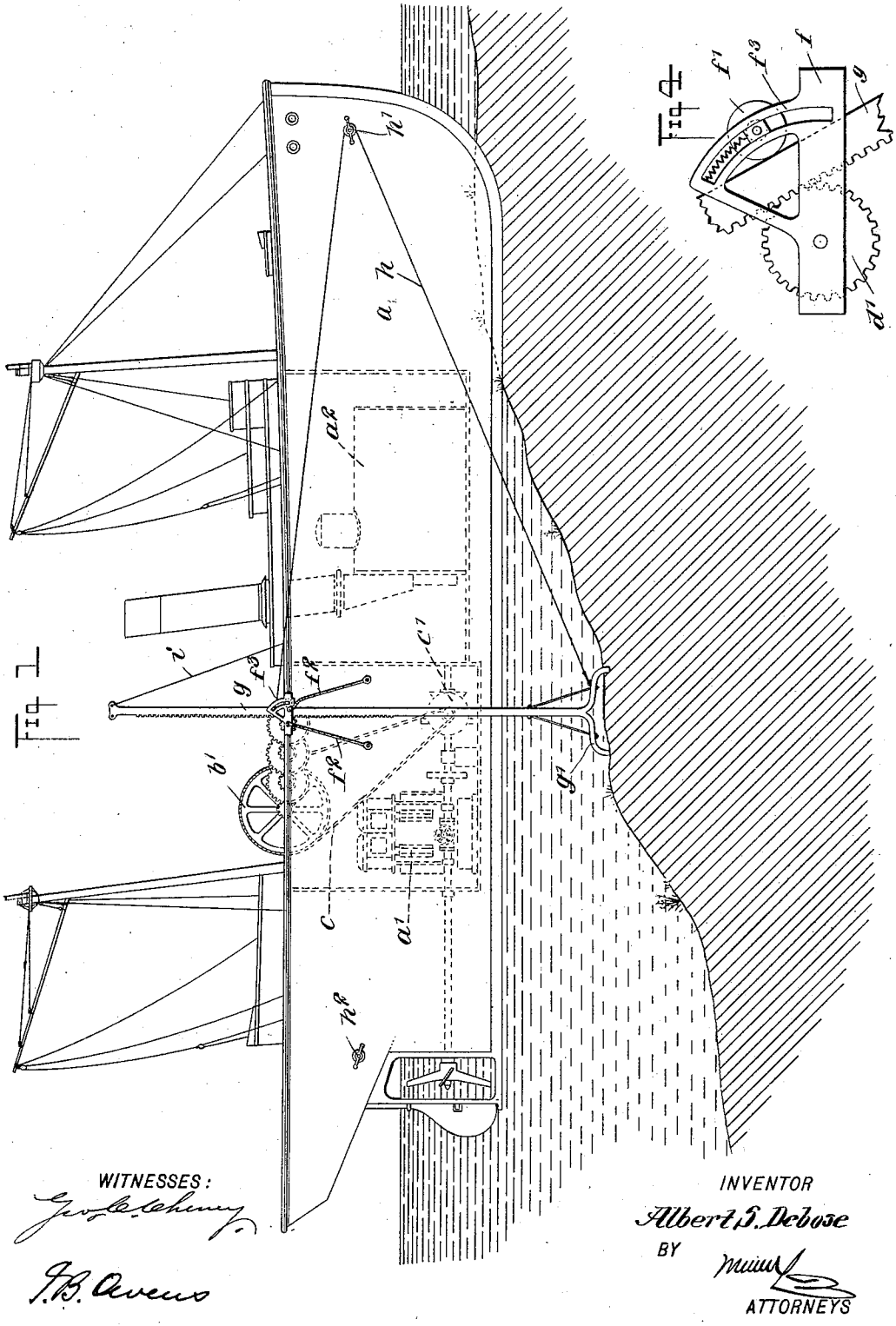
No. 686,597. Patented Nov. 12, 1901.

A. S. DEBOSE.

APPARATUS FOR FLOATING VESSELS.

(Application filed July 12, 1901.)

(No Model.) 2 Sheets—Sheet 1.



WITNESSES:

J. B. Owens

INVENTOR

Albert S. Debose

BY

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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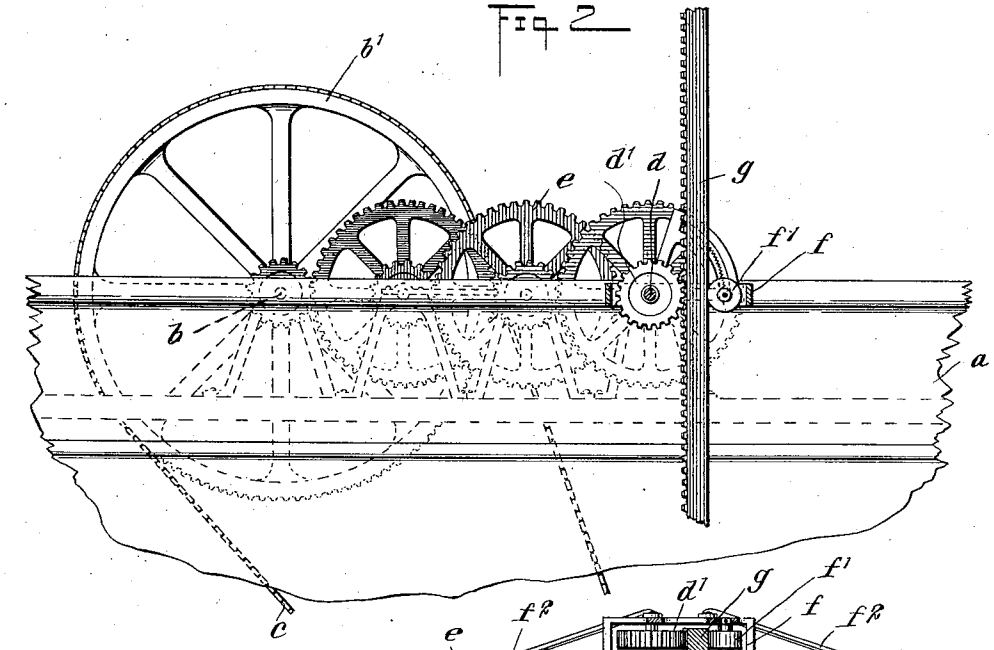
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FIG 2



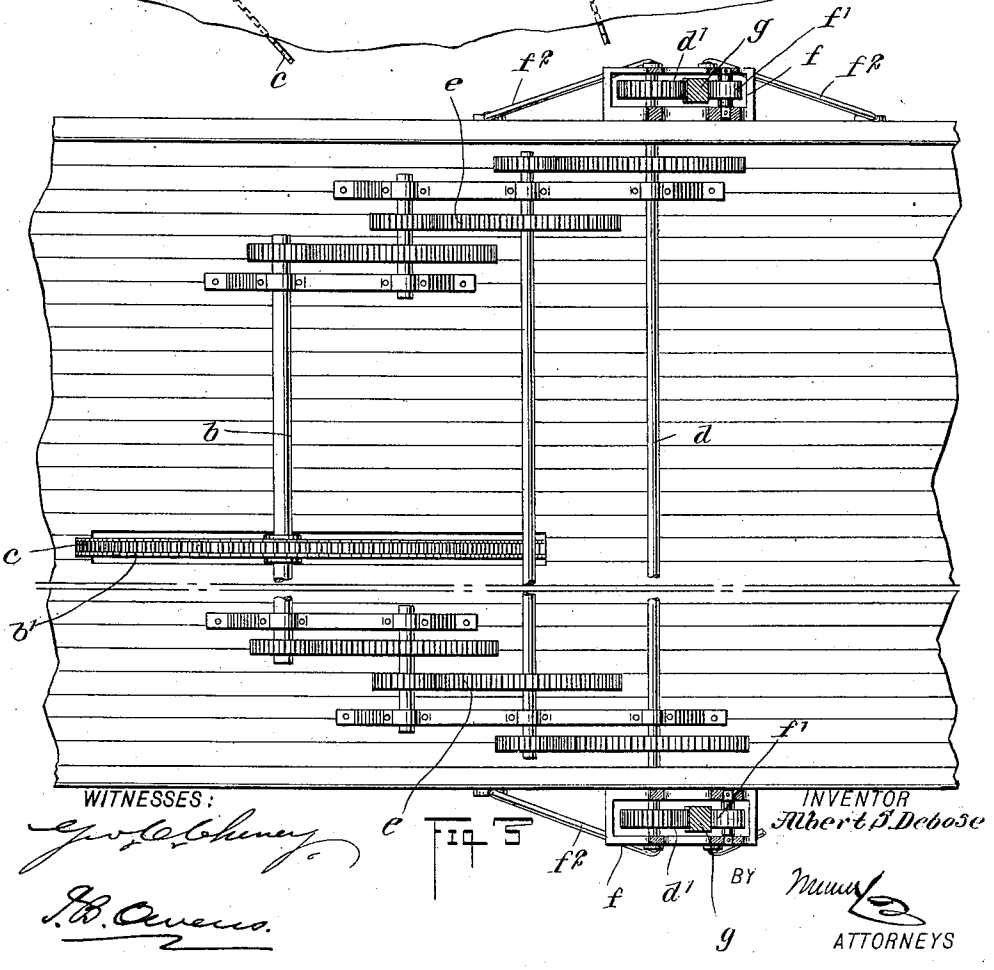


FIG 5

WITNESSES:

INVENTOR
Albert S. Debose

BY

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT S. DEBOSE, OF CUERO, TEXAS.

APPARATUS FOR FLOATING VESSELS.

SPECIFICATION forming part of Letters Patent No. 686,597, dated November 12, 1901.

Application filed July 12, 1901. Serial No. 67,985. (No model.)

To all whom it may concern:

Be it known that I, ALBERT S. DEBOSE, a citizen of the United States, and a resident of Cuero, in the county of Dewitt and State of Texas, have invented a new and Improved Apparatus for Floating Vessels, of which the following is a full, clear, and exact description.

This invention relates to a means for assisting in floating vessels which have run aground; and it consists in certain novel mechanism for raising or partly raising the vessel, combined with means for hauling the vessel aft after it has been so raised.

This specification is a specific description of one form of the invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a vessel equipped with my invention. Fig. 2 is an enlarged side elevation of the gearing. Fig. 3 is a plan view of the same, and Fig. 4 is a detail view of parts hereinafter more fully described.

a indicates a vessel, which is here shown as of the steam-propelled type, it being equipped with engines (indicated at *a'*) and boilers, (indicated at a^2.)

b indicates a shaft, which is mounted transversely on the deck or other upper portion of the vessel. This shaft is provided with a sprocket-wheel *b'*, over which passes a chain *c*, the chain extending down into the hold of the vessel and having connection by gearing *c'*, of any suitable form, with the engine *a'*.

d indicates a transversely-arranged shaft mounted on the deck or other upper portion of the vessel and extending from side to side thereof. This shaft is driven from the shaft *b* through the medium of trains of gearing *e*. The shaft *d* has its ends projected beyond the sides of the vessel, and these ends carry, respectively, pinions *d'*. The outer ends of the shaft *d* are held in brackets *f*, and through these brackets pass vertically-movable beams *g*. These beams are formed with gear-teeth thereon, which mesh with the pinions *d'*, and rollers *f'*, mounted in arc-shaped guides f^3 on the brackets *f*, (see Fig. 4,) press the beams *g* against the gear-wheels *d'*, so that as the shaft *d* revolves the beams *g* are raised or lowered, according to the direction in which the shaft turns. This arrangement also allows the beams to swing, the purpose of which will be hereinafter explained. The beams *g* are provided at their lower ends with bifurcated foot portions *g'*, which are adapted to rest on the bed of the waterway, as shown in Fig. 1.

h indicates a rope which is arranged at each side of the vessel. These ropes are respectively connected to the lower ends of the beams *g* and are led forwardly around guide-sheaves *h'*, mounted at the bow of the vessel, and thence aft to a suitable or convenient point from which they may be hauled. h^2 indicates one of two other guide-sheaves, these guide-sheaves h^2 being arranged on the counter of the vessel, so that, if desired, the ropes *h* may be led aft instead of forward.

i indicates a rope which is attached to the upper end of the beam *g* and which enables the beam to be conveniently handled.

The ropes *h* and *i* may be hauled manually, or they may be led to suitable hoisting mechanism on the vessel, as will be understood by persons skilled in the art.

f^2 indicates braces for the brackets *f*, these braces extending downward and being fastened to the sides of the vessel.

In using the invention, assuming that the vessel has gone aground, as indicated in Fig. 1, by adjusting the beams *g* and causing the various gears to force them downward the vessel will be wholly or partly raised, and when this has been done by hauling on the ropes *h* (assuming that these ropes are led around the sheaves *h'*) the beams *g* will be tilted and the vessel will be moved astern. If the vessel's stern rests on the ground, the reverse of the same operation may be performed by passing the ropes *h* through the sheaves h^2.

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

1. The combination, with a marine vessel, of a bracket affixed to the gunwale and having an arc slot as described, a roller having a bearing adapted to travel in said slot, and means for retracting it to the top of the same,

a spur-gear journaled in said bracket, a push-beam provided with a rack on one side and adapted to work between said roller and gear, and means for rotating the gear for raising and lowering the beam, substantially as shown and described.

2. The combination, with a marine vessel, and a beam provided with a rack and adapted to work vertically on the side of the vessel, means for raising and lowering and also guiding the said beam vertically, and a hauling-rope connected with the foot of said beam, and a pulley attached to the vessel's hull near one end of the same, the rope extending back over the deck, substantially as shown and described, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT S. DEBOSE.

Witnesses:
EDWARD F. IRWIN,
W. S. WOOD.