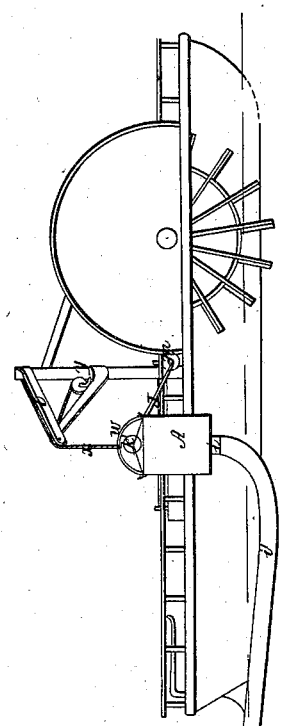
P. Bennet.

Device for Raising Sunken Vessels.

No. 4,177. Patented Sept. 2, 1845.



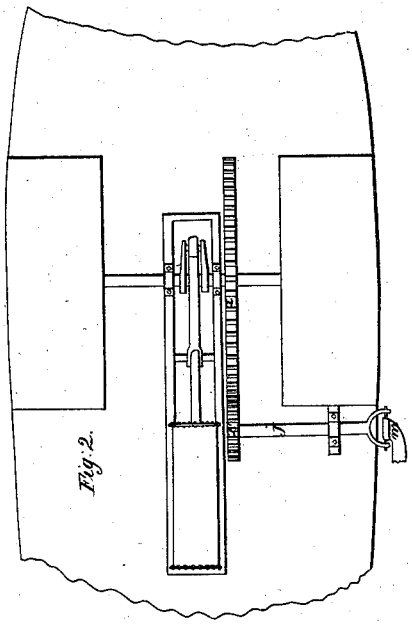


Fig. 2.

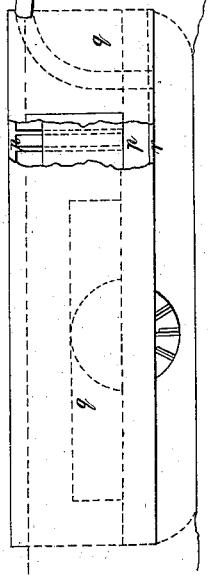
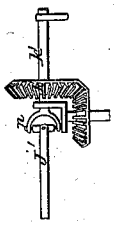


Fig. 1.



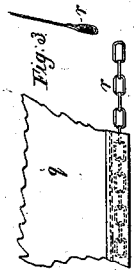


Fig. 3

UNITED STATES PATENT OFFICE.

PHINEAS BENNET, OF NEW YORK, N. Y.

MODE OF DISCHARGING AND RAISING WRECKS.

Specification of Letters Patent No. 4,177, dated September 2, 1845.

To all whom it may concern:

Be it known that I, PHINEAS BENNET, civil engineer, of the city, county, and State of New York, have invented new and useful Improvements in the Mode of Raising Wrecked Vessels and Their Cargoes or Saving Them Wholly or Partly, and that the following is a full, clear, and exact description of the principle or character thereof which distinguishes it from all other things before known and of the manner of constructing and using the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a representation of a wrecked steamboat with the apparatus applied. Fig. 2, a top view of the attendant steam boat employed for working the machinery to exhibit the manner of forming the connection and Fig. 3, a portion of the apparatus in section.

The nature of my invention consists in the employment of a cloth or flexible caisson to surround the wreck for the purpose of excluding the surrounding waters, so that the water within the vessel and caisson can be pumped out; and in the employment of a frame or frames to be erected above the vessel for the purpose of giving access to any part of the vessel; and also in connecting with such cloth or flexible caisson a pump or pumps suspended to a steam boat or other vessel carrying the motive force for pumping water from the caisson and wreck.

The flexible caisson (*q*) is made of canvas or other cloth of sufficient size to surround and encompass and extend sufficiently low to cover all the leaks in the wreck, it should be made water proof by any of the known means, and of sufficient strength, by repeated layers, to resist the pressure of water. The lower edge is lapped over, or hemmed to embrace a chain (*r*), which extends entirely around as represented in section at Fig. 5 to act as a sinker and enable the pressure of the surrounding water to force the cloth or caisson up to and under the bottom of the wreck.

For the purpose of getting access to the cargo of a wrecked vessel, I employ in combination with the flexible caisson a frame, which I denominate a platform the construction of which should be varied to suit the peculiar situation and condition of the wrecked vessel. I shall here set forth the mode most generally applicable. In the first place, I make a frame about twelve feet in length and as wide as the wrecked vessel; enlarging the same, if it becomes necessary, in the operation of saving the wreck or cargo; the said frame consists of two bents placed twelve feet apart and secured together by four girths, two at each end. When the frame is thus constructed, I attach it to the vessel by means of bolts, screws, chains, or other fastening so as to render it a firm fixture to the wrecked vessel. The frame is then made to receive timbers and flooring, putting it in readiness for operations on the wreck.

When the wreck is wholly under water I build a temporary frame around the sides of the wreck, extending from the deck or uppermost part of the wreck above the surface of the water; when the wreck is only partially covered with water, the temporary frame may only extend around that part of the wreck which is submerged; and in case the upper part of the wreck is out of water, but a part of it is stove in, or broken, or is otherwise rendered so leaky as to interfere materially with the water being pumped out, I make the frame work of such extent and in such places as may be required by the particular circumstances. The piece (*p*) for example represents frame work adapted to the bow of a steamboat wreck. The flexible caisson encircles this platform or frame as well as the vessel, and by this means access can be had to any part of the inside of the vessel for the purpose of removing any portion of the cargo or closing up the leaks if the intention be to raise the wreck.

Any kind of pump may be employed for the purpose of removing the water from the inside of the wreck and caisson; but I prefer one on the rotary principle. The pump A is suspended by a bail (*w*) and rope (*x*) to a crane (*o*) which swivels on a mast (*y*) on the side of the boat, and for the purpose of communicating motion to the shaft of the pump, there is a master wheel (G Fig. 2) on the crank shaft of the engine, which gears into a cog-wheel (L′) on a shaft (*j*) which is connected with the shaft (*k′*) of the pump by two universal joints (*m*) and (*n*) (as represented in section at Fig. 4,) on a connecting shaft (*j′*). By means of this arrangement the pump can be suspended over any part of the wreck, or connected with the inside of the flexible caisson by a flexible pipe (*i′*) attached to the tube (*i*) at the

bottom of the pump and to the caisson. It will be obvious that any kind of pump may be employed for this purpose, although I have invented one for this special purpose and intend securing it by Letters Patent, as being the most efficient kind of pump for raising large bodies of water to a very small height.

I do not claim as my invention the employment of a steam or other boat for assisting in saving, or partially saving wrecks or other cargoes, as this has been done before, but

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

1. The employment of a caisson made of waterproof cloth or other suitable material rendered waterproof or partly so to inclose a wrecked vessel for the purpose of excluding the surrounding water while pumping from the inside of the wreck and caisson as herein described.

2. I also claim as my invention the employment of the movable frame or platform in combination with the flexible caisson and wreck for the purpose and in the manner described.

3. And finally I claim connecting a pump or pumps with the caisson and a steam engine or other first mover on board a boat by means of the swinging crane in combination with the universal joints, as herein described, to admit of the free movements of the boat or caisson without affecting the connections, as herein described.

PHINEAS BENNET.

Witnesses:
JOHN D. RODNEY,
JNO. M. WEST.