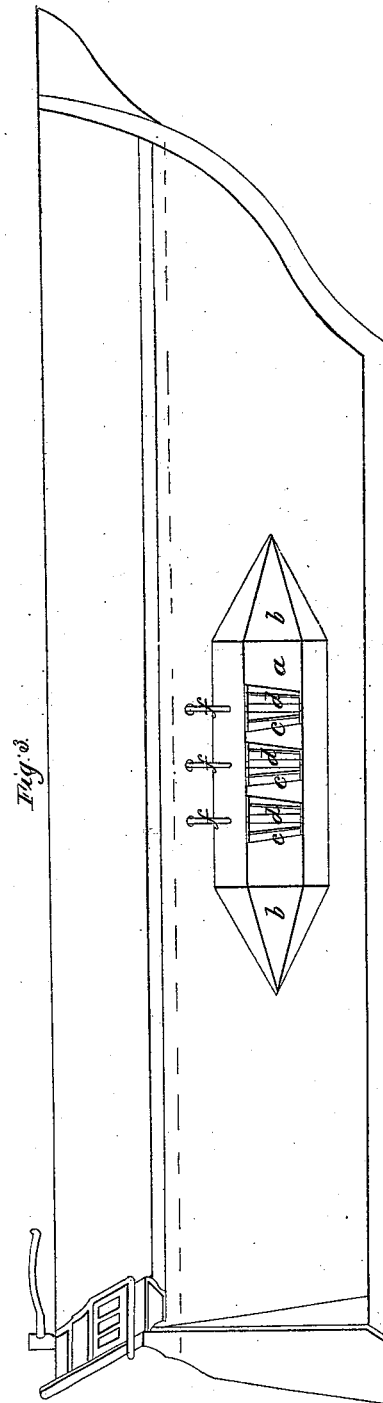
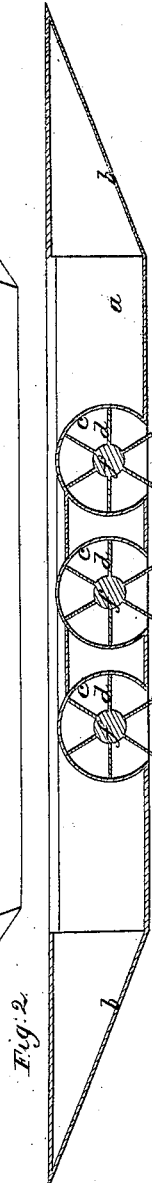
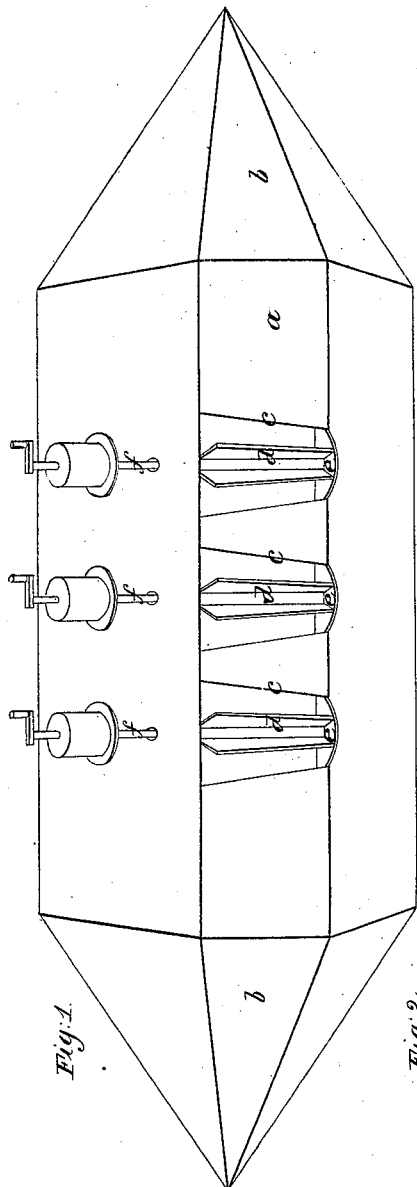


*S. R. Parkhurst,*  
*Propeller*

*No. 1,290.*

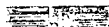
*Patented Nov. 26, 1845.*



# UNITED STATES PATENT OFFICE.

STEPHEN R. PARKHURST, OF NEW YORK, N. Y.

## IMPROVEMENT IN SHIPPING AND UNSHIPPING PROPELLERS.

 Specification forming part of Letters Patent No. 4,290, dated November 26, 1845.

*To all whom it may concern:*

Be it known that I, STEPHEN R. PARKHURST, of the city, county, and State of New York, have invented a new and useful Improvement in Propelling Vessels; and I do hereby declare 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 making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a general view of the propellers and the case to which they are attached. Fig. 2 is a horizontal section through the propellers and case. Fig. 3 is a side view of a vessel with the case with the propellers affixed thereto.

The same letters refer to like parts in all the figures.

The nature of my invention is as follows: The vessel may be of any of the ordinary forms of sailing-vessels, and to this I affix by any of the usual devices on the outside below the water-line on each side one or more cases, made of iron or other suitable material, in which are two or more recesses to receive propellers of small diameter. These cases may be placed in the center of the length of the vessel on each side, as shown in the drawings, Fig. 3, or may be located near the bow or stern or at the bow and stern both, as is found expedient.

To construct my improvement, I form an oblong case *a*, the ends of which are tapered off to a point, as shown at *b*, either semi-conical or semi-pyramidal. In the body or parallel part of this case I form the outside recesses *c*, about two-thirds of a circle in their cross-section. (See Fig. 2.) These recesses are two or more in number; but I do not contemplate using less than four in ordinary constructions. Into the recesses above named I put conical wheels or paddles *d*, the paddles radiating from a conical-shaped drum, the smaller

end of which is downward and is truncated. This end has a flange *e* on it that extends out to the outer ends of the paddles. The vertical shaft *f* of said propellers *d* are extended up to and through the projecting part of the side of the vessel when that can be effected to the deck. In other cases they are sustained outside by proper supports, and on their upper ends are pulleys, cranks, or other analogous devices for turning said propellers, by which they are connected with each other and with the engine. The propellers are intended just to fit the case in which they work, admitting only two or three paddles to project beyond the case on the open side. When said propellers are put in operation, they each strike the water outside the case, the second one drawing the water from the first after it has acted on it, and so on through the series. It will be obvious from this construction that the case can at any time be removed from the vessel, which will leave her in her original state. These propellers can each be driven by a separate engine, so that if one engine is out of order the rest can be at work, and engines of a much smaller size can be used.

Having thus fully described my improvement, I wish it to be understood that I do not claim as my invention the employment of a submerged horizontal wheel within a case in the vessel, as that has before been essayed; but

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

The case above described, into which the propellers are inserted to be placed on the outside of a vessel of the usual form of sailing-vessels, which is independent of and can be taken from said vessel, in combination with a series of horizontal propellers placed one before the other, in the manner set forth.

STEPHEN R. PARKHURST.

Witnesses:

J. J. GREENOUGH,  
A. P. BROWN.