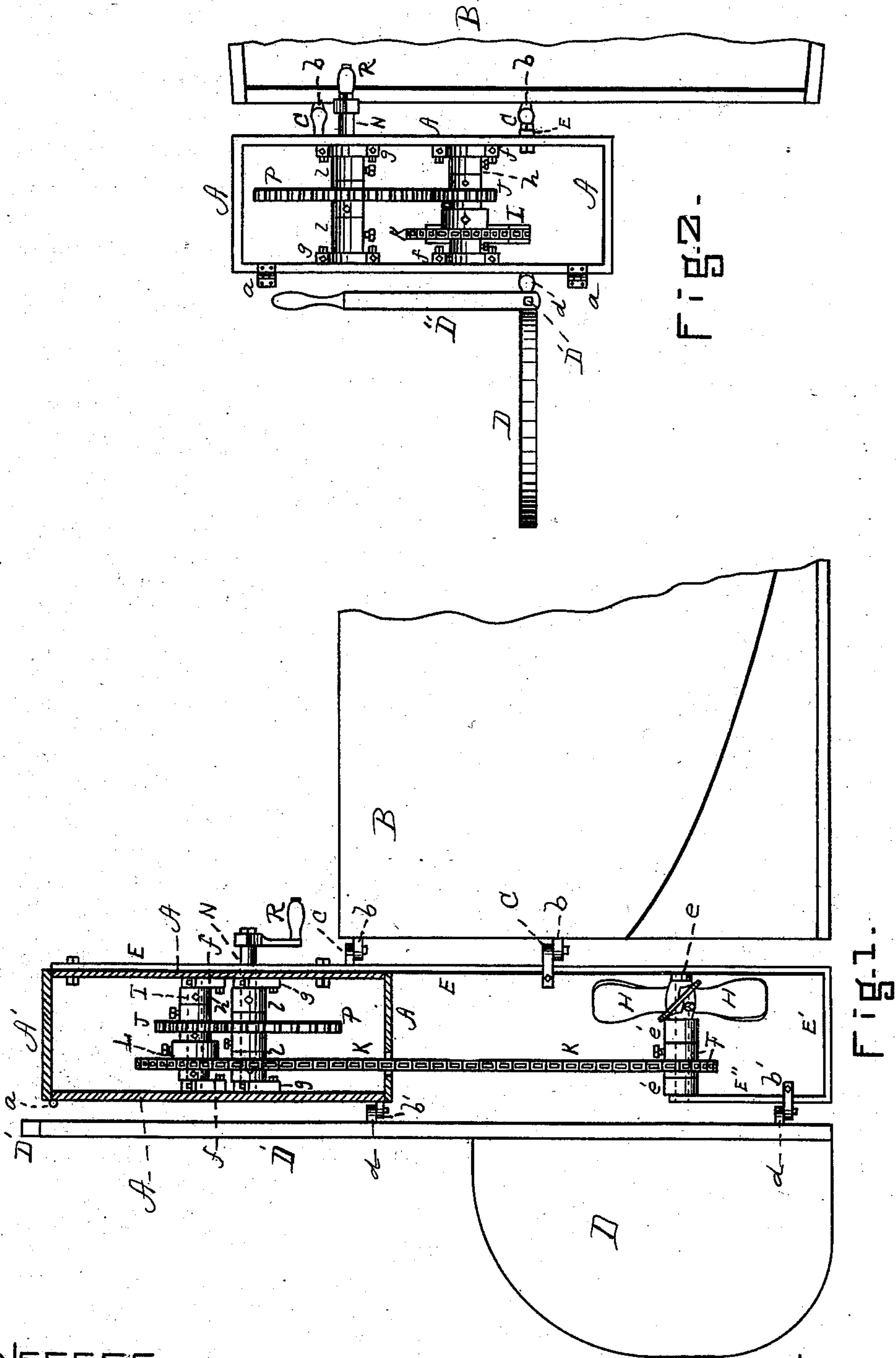


(No Model.)

E. W. SCHILDKNECHT.  
HAND PROPELLER FOR SMALL BOATS.

No. 402,482.

Patented Apr. 30, 1889.



WITNESSES.

*B. M. Williams*  
*J. M. Hartnett*

INVENTOR.

*Edwin W. Schildknecht*  
By his Atty.  
*Henry Williams*



# UNITED STATES PATENT OFFICE.

EDWIN W. SCHILDKNECHT, OF BOSTON, MASSACHUSETTS.

## HAND-PROPELLER FOR SMALL BOATS.

SPECIFICATION forming part of Letters Patent No. 402,482, dated April 30, 1889.

Application filed January 24, 1889. Serial No. 297,425. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN W. SCHILDKNECHT, of Boston, in the county of Suffolk and State of Massachusetts, have invented a  
5 new and useful Improvement in Hand-Propelling Attachments for Small Boats, of which the following is a specification.

This device is an attachment for small boats, adapted to be readily removed from and at-  
10 tached to the stern, whereby they may be propelled by means of a crank in the hand of the occupant of the boat.

In the accompanying drawings, in which similar letters of reference indicate like parts,  
15 Figure 1 is a vertical section of my device in position upon a boat, the stern of which is shown in side elevation. Fig. 2 is a plan view of the same with the cover removed.

A represents a box provided with a swing-  
20 ing cover, A', hinged at *a* to said box, whereby the mechanism within is kept from exposure to the weather.

B represents a portion of the stern of a small boat provided with two or more eye-  
25 bolts, *b*. The box A and a rod, E, (below described,) extending therefrom, are provided with pintles C, the vertical portions of which are adapted to drop into the eyebolts *b*. Thus the propelling attachment may be shipped  
30 and unshipped with ease. The opposite side of the propelling attachment is provided with eyebolts *b'*, similar to the eyebolts *b*, and the rudder-post D' is provided with pintles *d*, drop-  
35 D' of the rudder extends up to a point a little above the box A, and its upper end is squared to receive the tiller D'', which extends hori-  
40 A' of the box A. zontally at right angles with the rudder, so as not to interfere with the lifting of the cover

E is a rod bolted to the side of the box A next the boat and extending downward into the water, bent horizontally at E', as shown, and vertically at E''. A horizontal shaft, *e*,  
45 has its bearings in the two portions E E'' of the said rod, and rigidly secured to this shaft are a sprocket-wheel, F, and the paddle-wheel or propeller proper, H. Suitable collars, *e'*, upon the shaft *e* keep the wheel and propeller  
50 in proper position.

Within the box A, and supported in bear-  
ings *f* therein, is a shaft, I, (shown by broken lines in Fig. 1,) rigidly secured to which are a sprocket-wheel, L, and a pinion, J. The  
sprocket-wheel L is connected with the  
55 sprocket-wheel F by a chain, K. Below this shaft I is another shaft, N, supported in bear-  
ings *g* in the box A, to which shaft is rigidly secured the gear-wheel P, which engages the  
pinion J. One end of this shaft extends  
60 through the box toward the boat and is squared to receive the crank R. Suitable collars, *h* *l*, upon the shafts I and N hold the wheels thereupon in position.

The occupant of the boat, by turning the  
65 crank R, rotates the gear-wheel P, and hence the pinion J, shaft I, and sprocket-wheel L, which, by means of the chain K, rotate the sprocket-wheel F, shaft *e*, and paddle or pro-  
70 peller H, thus setting the boat in motion. The rudder is easily operated by extending a hand over the box to the tiller D''.

The propelling device may be readily re-  
moved from the boat by simply lifting it out of the eyebolts *b*, and the rudder may easily  
75 be unshipped from the propelling device and returned to its ordinary position upon the boat.

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

The herein-described improved propelling device for small boats, consisting, essentially, of the box A A' and bent rod E E' E'', sup-  
85 porting the same and provided with the pin-  
tles C and eyebolts *b'*, the shaft *e*, supported by said bent rod and carrying the propeller H and sprocket-wheel F, chain K, shaft I, supported within the box and provided with the sprocket-wheel L and pinion J, and shaft  
90 N, supported by the box and provided with the gear-wheel P and crank R, substantially as and for the purpose set forth.

EDWIN W. SCHILDKNECHT.

Witnesses:

HENRY W. WILLIAMS,  
J. M. HARTNETT.