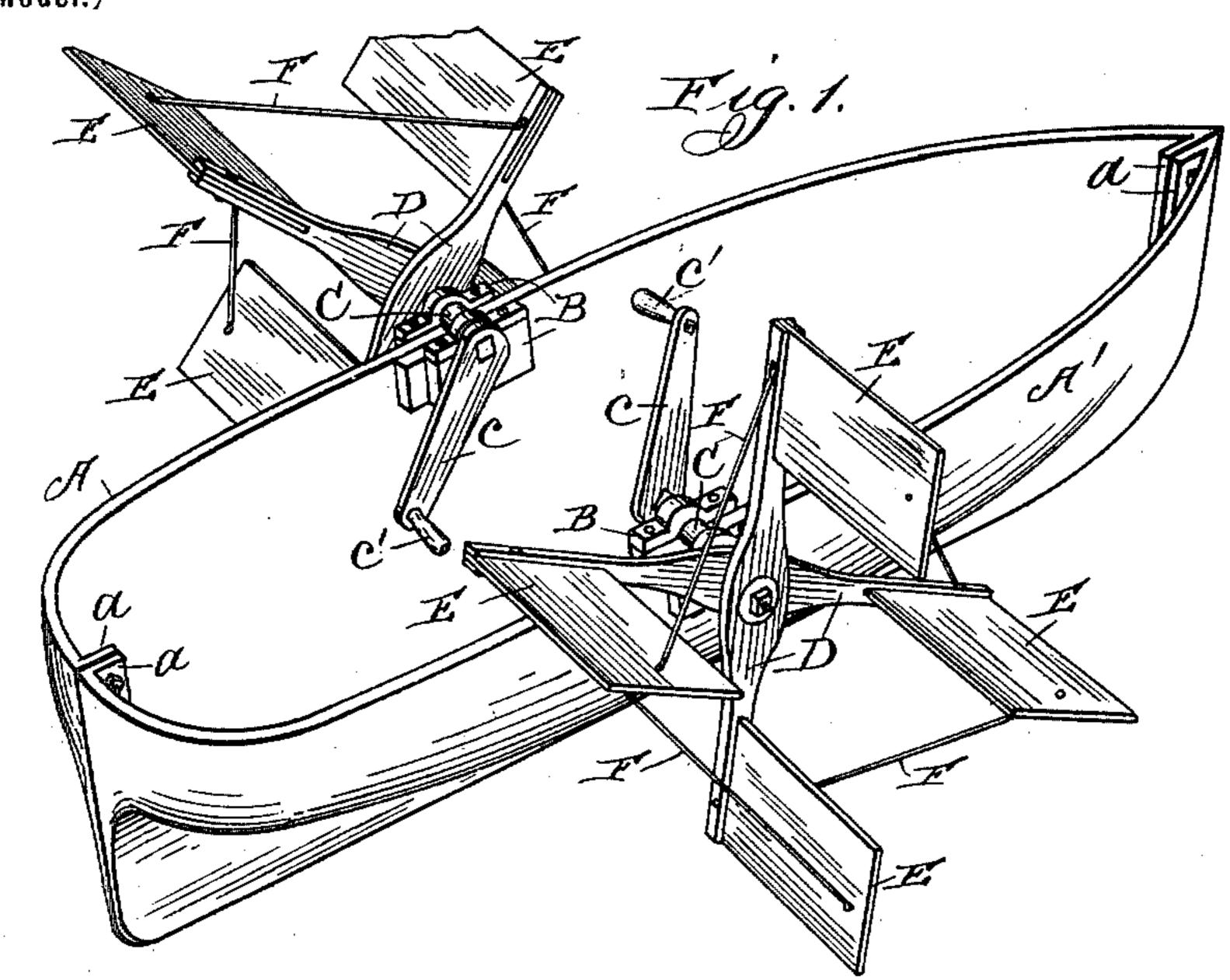
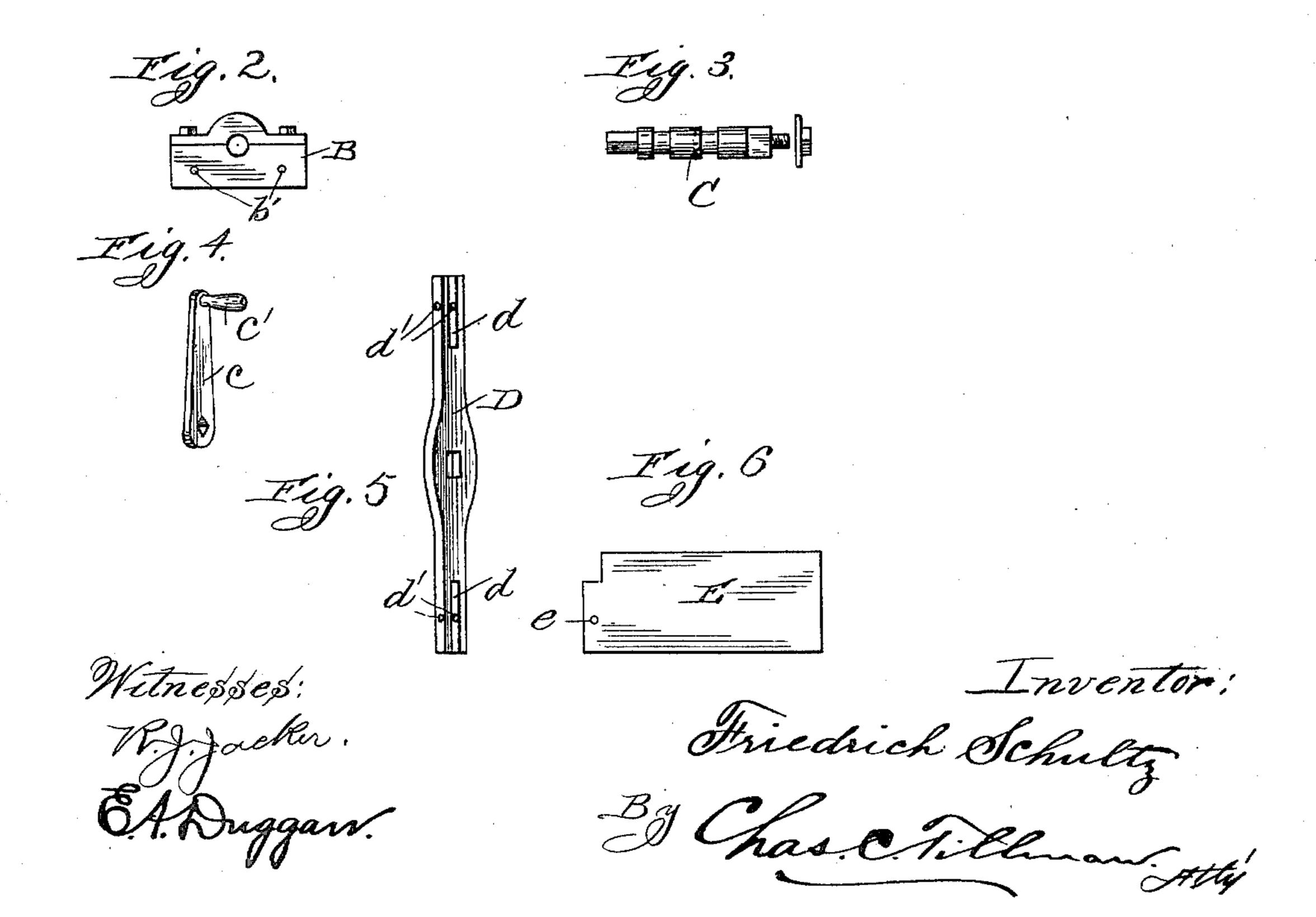
## F. SCHULTZ.

## PROPELLING MECHANISM FOR BOATS.

(Application filed Oct. 3, 1898.)

(No Model.)





# United States Patent Office.

FRIEDRICH SCHULTZ, OF CHICAGO, ILLINOIS.

### PROPELLING MECHANISM FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 626,304, dated June 6, 1899.

Application filed October 3, 1898. Serial No. 692,466. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH SCHULTZ, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Propelling Mechanism for Boats, of which the following is a specification.

This invention relates to improvements in a propelling mechanism for boats; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The object of my invention is to provide a propelling mechanism for a boat, which mechanism shall be so constructed that its pieces may be taken apart, so as to be packed in a smaller compass and readily assembled.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of a boat and propelling mechanism therefor, embodying my invention. Fig. 2 is a detached view of one of the journal-boxes for one of the crankshafts. Fig. 3 is a detail view of one of the crank-shafts. Fig. 4 is a perspective view of the crank. Fig. 5 is a similar view of one of the arms which carry the paddles, and Fig. 6 is a detached view of one of the paddles.

Similar letters refer to like parts through-35 out the different views of the drawings.

A and A' represent the sections of which the body of the boat may be composed. Secured to the inner and outer surfaces of each of the sections composing the body of the boat are journal-boxes B, which are provided with openings b' for the reception of bolts used for securing them in position, and which

bolts may be readily removed when it is desired to ship or transport the boat and propelling mechanism therefor. Journaled in 45 the journal-boxes are crank-shafts C, on one end of which are detachably secured cranks c, whose handles c' are likewise detachably secured thereto. Secured to the opposite end of the crank-shafts are arms D, which when 50 in position are at right angles to one another, as shown in Fig. 1 of the drawings, and have their ends formed with slots d to receive the paddles E, which paddles are held in position by means of bolts inserted through the open- 55 ings d' in the arms D, and the openings e in the ends of the paddles. To more firmly brace the paddles, I connect their outer ends to the arms D by means of tie-rods F, which may be detachably fastened at their ends in any suit- 60 able manner.

In Fig. 1 of the drawings I have shown the boat provided with two driving mechanisms; but it is evident that I may employ as many as desired without departing from the spirit of 65 my invention.

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

The combination with a boat, of the crank- 70 axles journaled on its sides, the arms D, having a central opening for the crank-shaft and slots in their ends, the paddles E, having at one of their ends a shoulder secured in said slots of the arms, and the tie-rods F extend- 75 ing from the arms to the outer ends of the paddles, substantially as described.

Signed at Chicago, Illinois, this 1st day of August, A. D. 1898.

#### FRIEDRICH SCHULTZ.

Witnesses:

CHAS. C. TILLMAN, E. A. DUGGAN.