

(No Model.)

G. L. GALBRUN.
PROPELLING MECHANISM.

No. 602,440.

Patented Apr. 19, 1898.

Fig. 1.

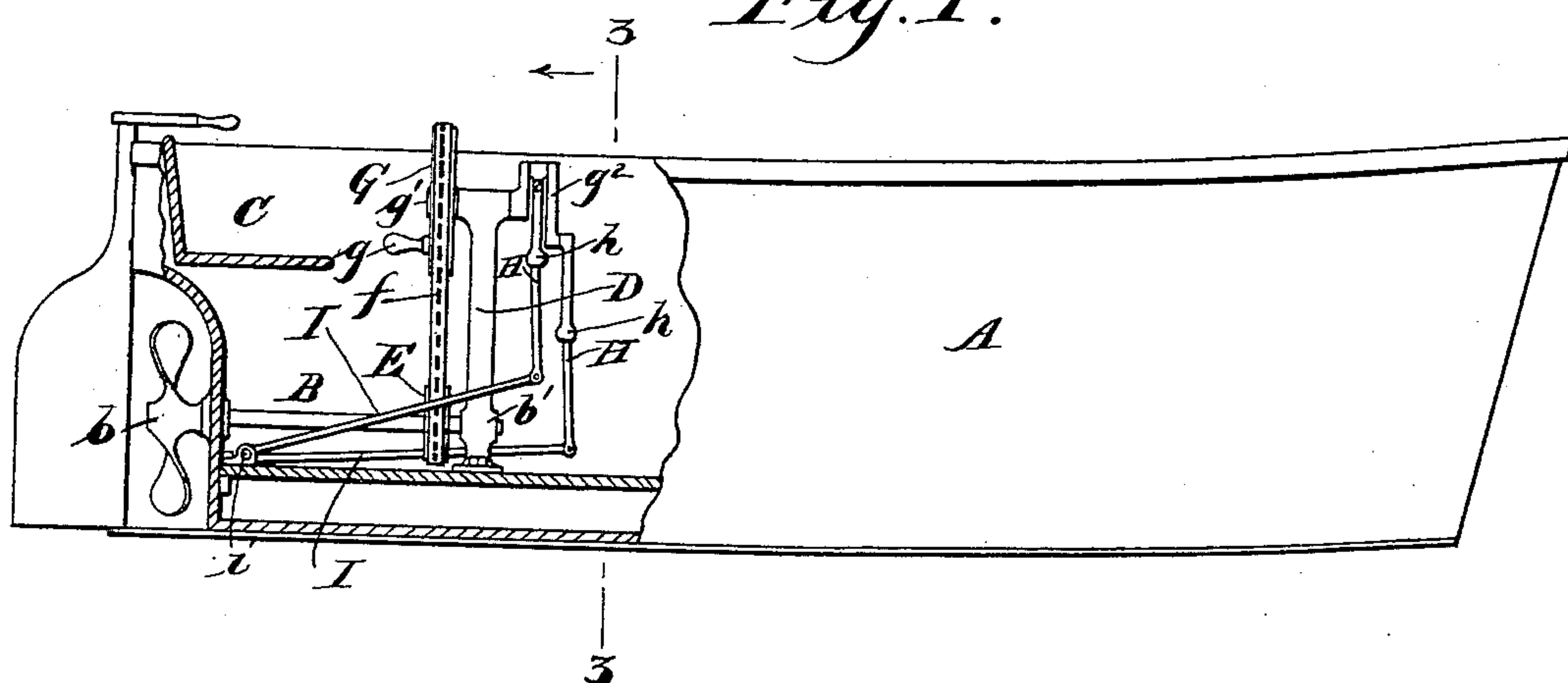


Fig. 2.

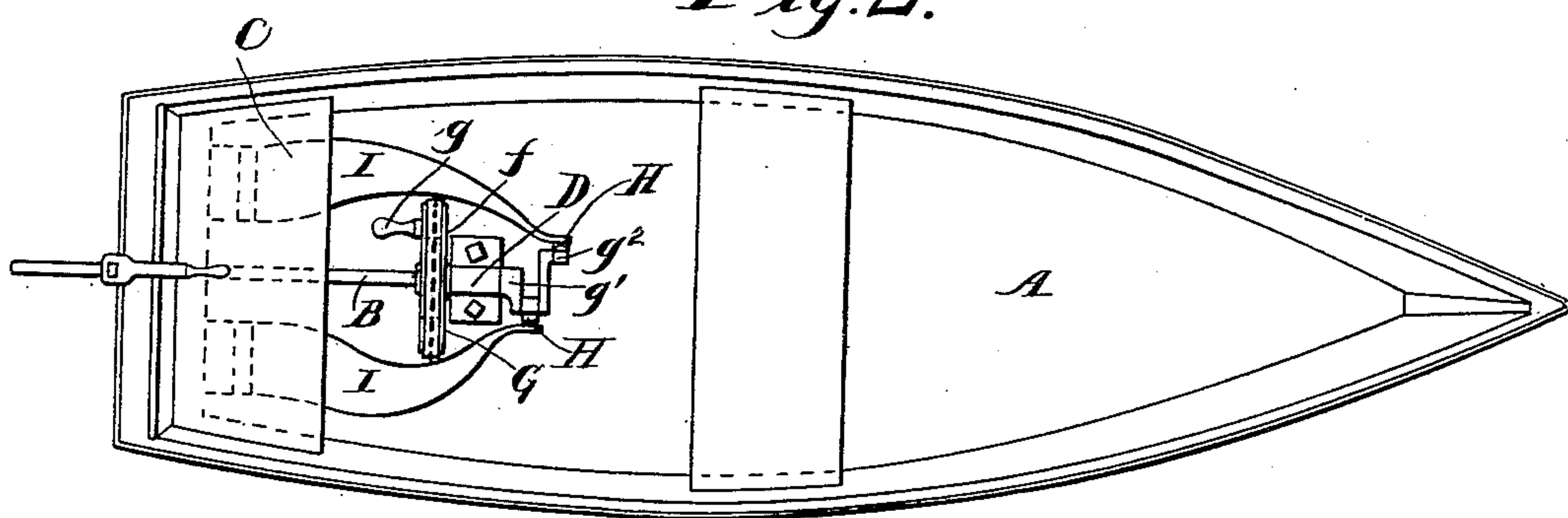
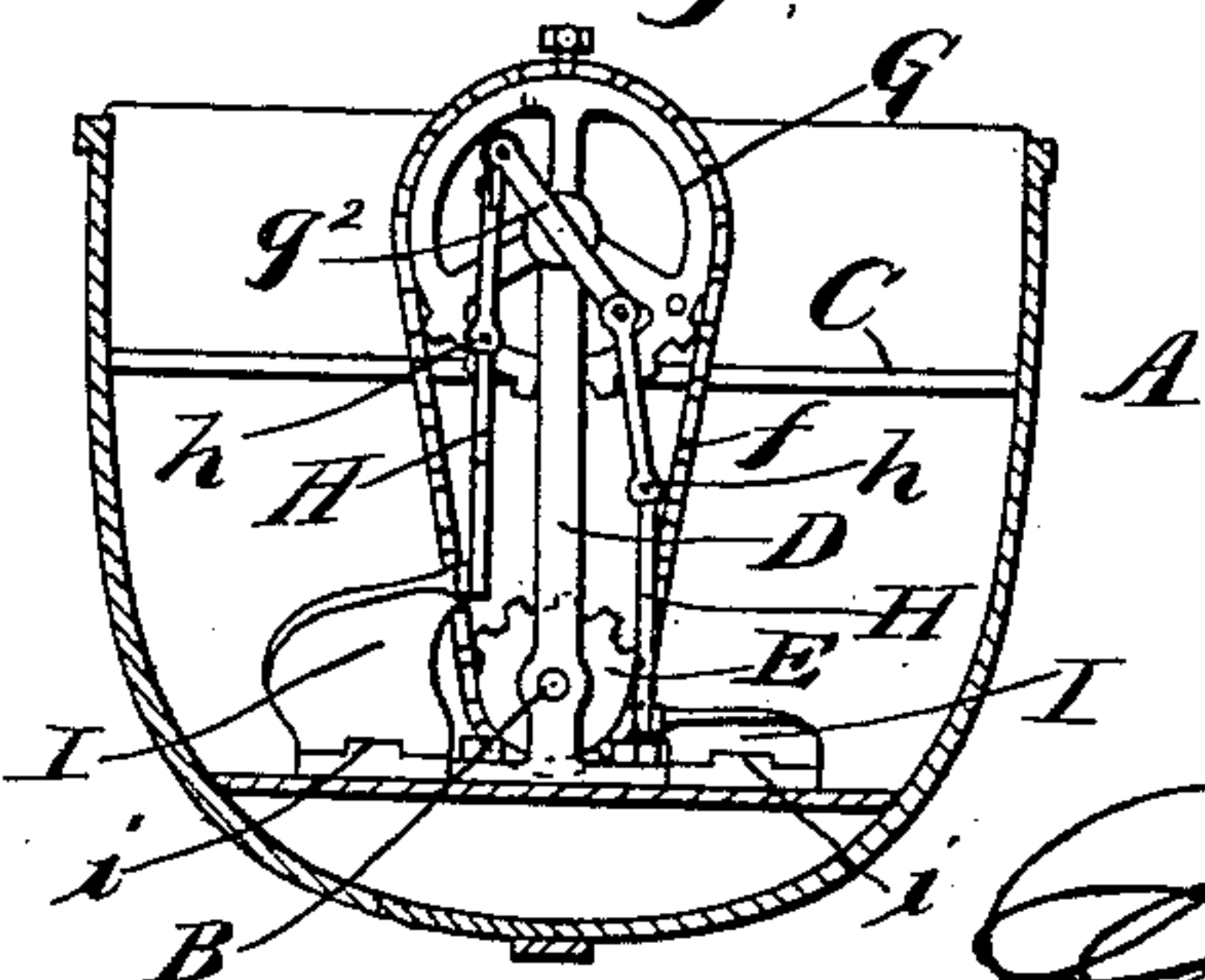


Fig. 3.



WITNESSES:

J. J. Sugar
O. O. Comb.

INVENTOR

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BY

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UNITED STATES PATENT OFFICE.

GUSTAVE L. GALBRUN, OF NEW YORK, N. Y.

PROPELLING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 602,440, dated April 19, 1898.

Application filed April 29, 1897. Serial No. 634,489. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVE L. GALBRUN, a citizen of France, and a resident of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Propelling Mechanism, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to hand or foot power propelling mechanism for small boats; and it has for its object to provide a simple and improved propeller mechanism of this class which will possess advantages in point of convenience, ease of operation, maximum speed, and general efficiency.

In the drawings, Figure 1 is a side elevation of a boat provided with my improved propelling mechanism, parts being broken away to show the interior construction and arrangement. Fig. 2 is a top or plan view. Fig. 3 is a vertical transverse sectional view taken on the line 3 3, Fig. 1.

Referring to the drawings, A designates the hull of the boat, which is provided with a propeller-shaft B, carrying the propeller *b*. Adjacent to the propeller mechanism is provided a seat C.

The framework embodied in my improved propeller mechanism preferably comprises an upright standard D, rising from the bottom of the boat and arranged in a convenient position with relation to the seat C. This single upright standard will form the complete carrying-frame of the propeller mechanism, the front end of the propeller-shaft preferably having a bearing, as at *b'*, in the lower portion of the standard.

Mounted upon the propeller-shaft is a sprocket-wheel E, connected by vertically-extended sprocket-chain *f* with a sprocket drive-wheel G, arranged above the sprocket-wheel E on a corresponding transverse plane with relation to the seat C and having a bearing at the top of the upright standard D.

In relative gearing of the sprocket-wheels the top drive-wheel G is of larger diameter than the propeller-shaft wheel E to multiply the revolutions of the shaft with relation to the revolutions of the drive-wheel. The drive-

wheel is provided with a handle or crank *g*, projecting toward the seat C, as shown.

In the operation of the foregoing mechanism a person seated in the seat C may conveniently grasp the handle *g* of the drive-wheel, and by the rotation of the latter the propeller-shaft will be turned at a high relative speed. To provide for the simultaneous or alternative operation of the mechanism with the feet and hands, I provide a pedal mechanism connected with the hand driving mechanism hereinbefore described. In this connection the drive-wheel G is carried upon a shaft *g'*, provided at its end opposite the drive-wheel with a treadle crank-arm *g''*, to the cranks of which are respectively connected, at opposite sides, pitmen H H, pivotally jointed, as shown at *h*, to permit the requisite lateral play and having their lower ends connected to the front ends of treadles I I, which treadles project toward the seat C and have their rear ends hinged or pivoted, as at *i*, to the bottom or framework of the boat.

The operation and advantages of my invention will be readily understood. The propeller-shaft may be rotated by either the hand mechanism, embodying the sprocket-gears and connecting-chain, or by the foot mechanism, embodying the treadles and their connection with the cranks upon the shaft of the sprocket drive-wheel.

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

1. An improved propeller mechanism of the class described, comprising the upright standard or framework, the propeller-shaft carrying a sprocket wheel or gear, a sprocket drive-wheel or gear carried upon a shaft mounted at the top of the upright standard or framework, said shaft being provided with an opposite end crank, a sprocket-chain or connecting mechanism extending between the gears, pitmen connected with the crank end of the drive-wheel shaft, and treadles extending from said pitmen rearwardly at each side the driving-gear mechanism, substantially as and for the purpose set forth.

2. An improved propeller mechanism of the class described, comprising the upright standard, the propeller-shaft having its front end bearing in the lower portion of said stand-

ard and provided with a sprocket-wheel, a
sprocket drive-wheel mounted upon a shaft
bearing on the top of the standard and pro-
vided with a rearwardly-projecting crank-arm
5 or handle, the shaft of said drive-wheel being
provided with a pedal-crank at its front end,
a sprocket-chain connecting said gears, the
pitmen respectively connected to said cranks
at each side the mechanism and pivotally
10 jointed, and the treadles connected with the
pitmen and extending rearwardly at each side

the driving mechanism, substantially as and
for the purpose set forth.

In testimony that I claim the foregoing as
my invention I have signed my name, in pres- 15
ence of two witnesses, this 19th day of April,
1897.

GUSTAVE L. GALBRUN.

Witnesses:

C. SEDGWICK,

M. G. MACLEAN.