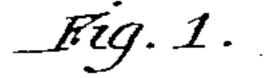
(No Model.)

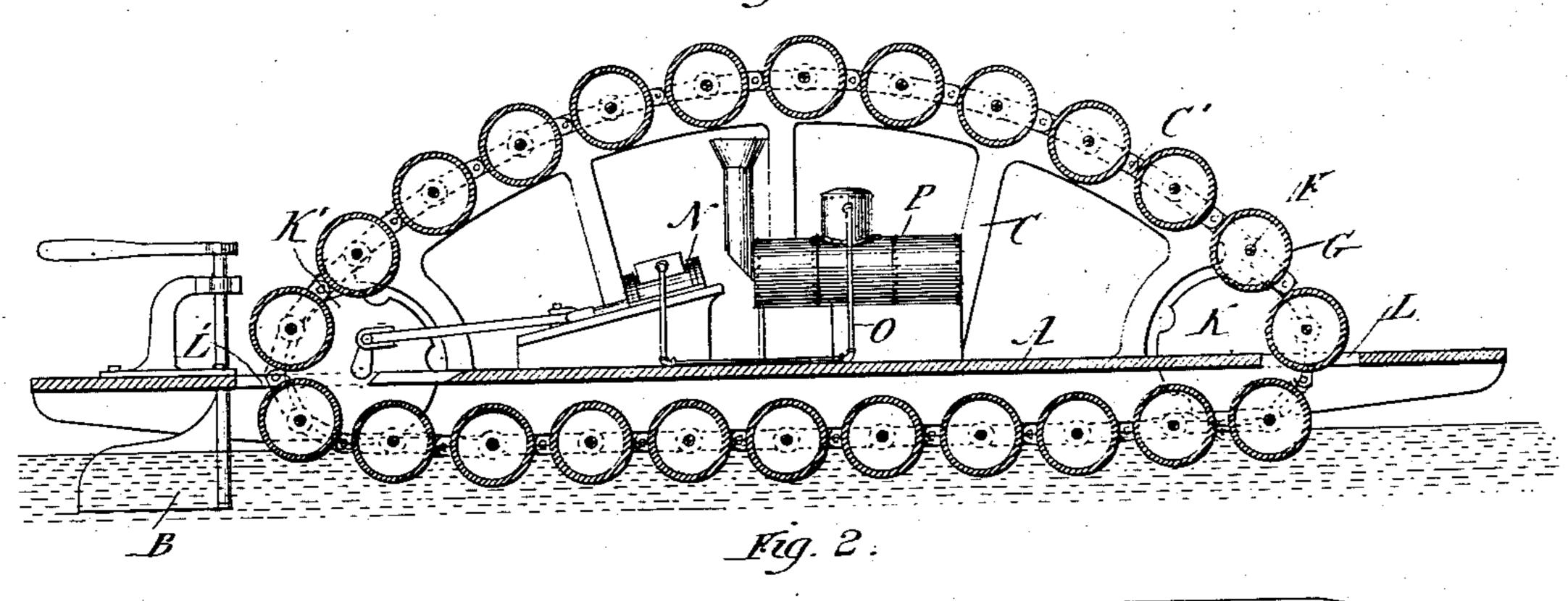
## C. E. BAKER.

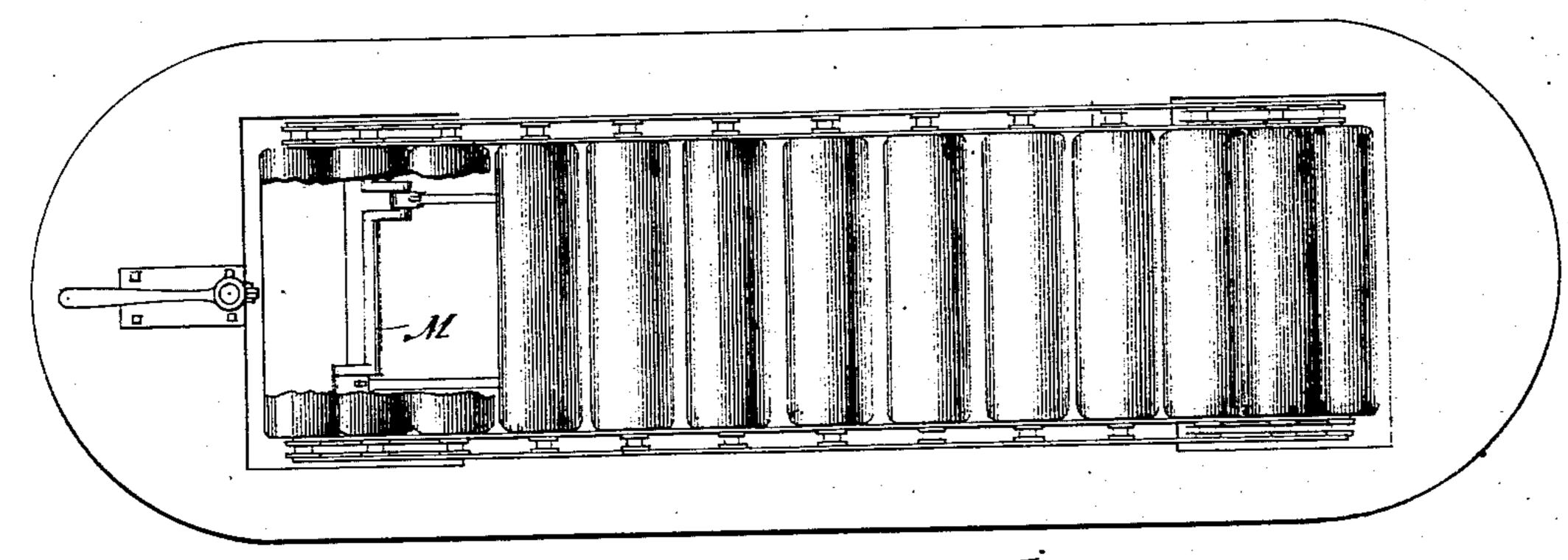
## PROPELLER FOR VESSELS.

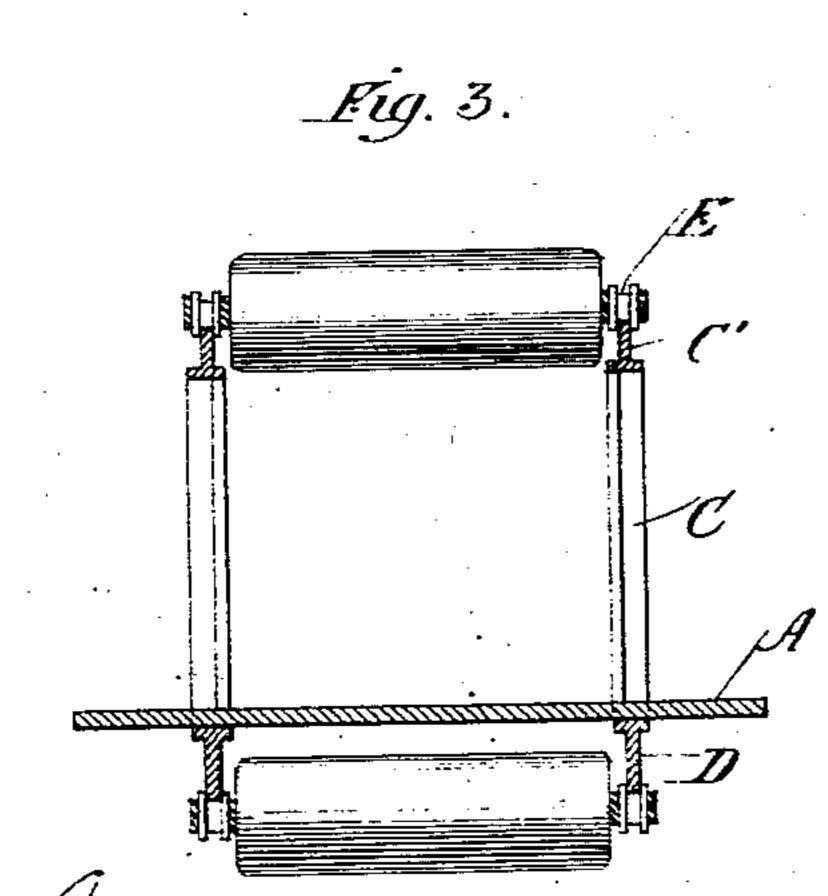
No. 328,559.

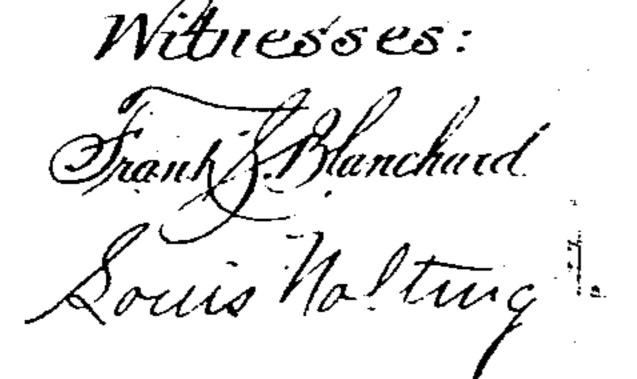
Patented Oct. 20, 1885.

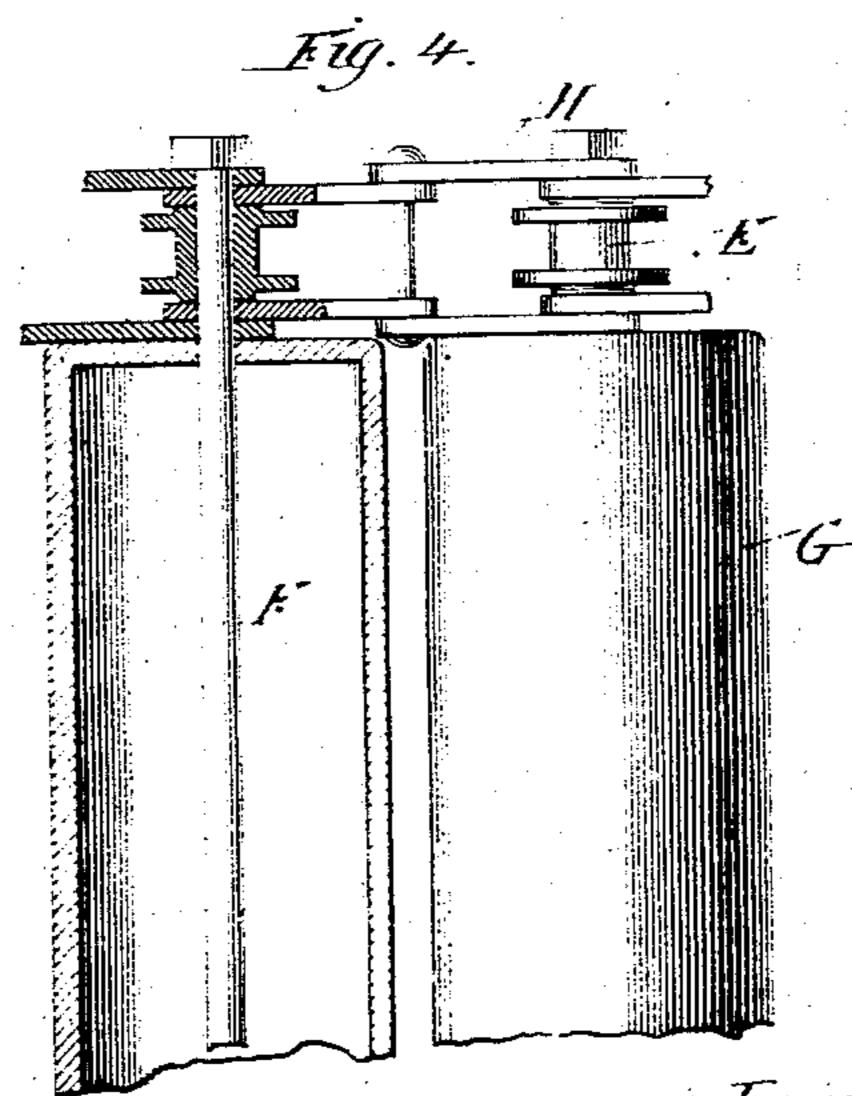












Christian G. Baker

By West Harry Hoo.

Altorneys.

## United States Patent Office.

CHRISTIAN E. BAKER, OF CHICAGO, ILLINOIS.

## PROPELLER FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 328,559, dated October 20, 1885.

Application filed May 12, 1885. Serial No. 165,184. (No model.)

To all whom it may concern:

Be it known that I, Christian E. Baker, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Propellers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improved boat

and the means for propelling the same.

The object of the invention is to obtain a boat which may be propelled at a high rate of speed, one which will be of simple construction, and in which the propelling power will be simple and effective.

To the accomplishment of the above the invention consists, first, in floating the boat upon suitable air or gas cylinders, the boat being at all times clear of the water, and, secondly, in propelling the boat through the me-

dium of the cylinders referred to.

Reference will be made to the accompanying drawings, in which Figure 1 is a longitudinal section through the boat; Fig. 2, a top plan of the boat with certain of the cylinders broken away; Fig. 3, a cross-section, and Fig. 4 a detail. of two of the cylinders.

Like letters refer to like parts in each view.

A represents the floor or deck of the boat, and Bthe rudder of the same. Mounted upon deck A and upon each side thereof are a series of uprights, C, upon the upper ends of which are formed or supported segmental guides C'.

35 Upon the under side of the deck there are

formed guides or tracks D, one upon each side.

Grooved rollers E are adapted to move upon tracks C'D, such rollers being loosely mounted upon rods F, passed through cylinders G and protruding beyond each end thereof. Rods F are connected by the links of sprocketchains H, with which the teeth of sprocketwheels K K' are adapted to engage.

Formed in deck A are suitable openings, L
L', the former near the bow of the boat and 45
the latter near the stern thereof. Through
openings L L' the cylinders G are passed, as
clearly shown in Fig. 1, while the wheels K
K' are suitably mounted upon shafts located
near such openings. The shaft M of wheel 50
K' is a double-crank shaft, and is connected
by suitable pitmen with the rod of a piston
moving in a steam-cylinder, N, such cylinder
being connected by pipe O with the dome of a
boiler, P, as shown.

By the arrangement of parts as thus far described it will be seen that when the piston referred to is operated the shaft of wheel K' is operated, and with it the wheel itself. As wheel K' is revolved its teeth engage with the 60 chains H, and the cylinders G are moved forward. This operation, it will be understood, will serve to move the boat forward. The cylinders G are to be filled with air, gas, or any other suitable agent which will adapt 65 them to float and support the boat above the water.

By the use of my device it will be found that a high rate of speed may be obtained. What I claim is—

The combination, with boat A, of the segmental tracks C' and straight tracks D, the series of cylinders G, supported by rollers E, traveling upon said tracks, the endless chains H, the sprocket-wheels K K', located at the 75 front and rear ends of the boat, respectively, and mechanism for operating the parts, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTIAN E. BAKER.

Witnesses:

M. J. CLAGETT,

LOUIS NOLTING.