

M. WINCKELMANN.
HYDROPLANE.
APPLICATION FILED FEB. 28, 1921.

1,398,353.

Patented Nov. 29, 1921.



Fig. 1.

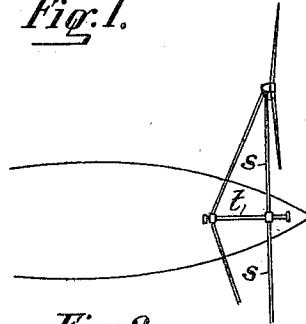


Fig. 2.

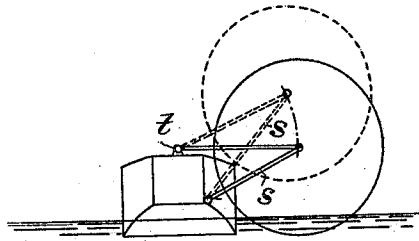


Fig. 3.

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UNITED STATES PATENT OFFICE.

MAX WINCKELMANN, OF KIEL, GERMANY.

HYDROPLANE.

1,398,353.

Specification of Letters Patent.

Patented Nov. 29, 1921.

Application filed February 28, 1921. Serial No. 448,655.

To all whom it may concern:

Be it known that I, MAX WINCKELMANN, engineer, citizen of the German Empire, residing at Kiel, Germany, have invented new and useful Improvements in Hydroplanes, of which the following is a specification.

A drawback of the hydroplanes now in vogue is that in consequence of the propeller and the supporting planes being high up on the boat the center of gravity is situated very far beneath the center of resistance. This state of things will be aggravated when the motor is arranged within the boat, which is absolutely necessary in order to increase the flotative stability of the hydroplane. As is well known the lowness of the center of gravity is very disadvantageous in flying.

In accordance with this invention the hydroplane is fitted with supporting planes placed only at, or approximately at, the height of the deck of the boat and with lateral propellers arranged in bearings in front or at the rear of the supporting planes.

The invention is shown in the drawing in which—

Figure 1 is a diagrammatic side view,

Fig. 2 a plan view, and

Fig. 3 a front view of a hydroplane with one propeller omitted.

When the hydroplane glides down onto (or up out of) the water the propellers with their bearings are swung up about a common shaft *t* or separate shafts so that the propellers which are at about the same level as the supporting planes during flight are so high when the hydroplane glides down onto, or up from, the water that they do not touch the water.

The swinging up of the propellers may be effected by elongating the lower strut *s* (Fig. 3) that supports the propeller bearing. The means for elongating the strut may con-

sist of a hydraulic device or of a screw spindle that may be turned in a female screw in the strut *s*.

The propellers are arranged to be rotated by a transmission shaft through the medium of chains or bevel wheels. The transmission shaft may be the shaft of the motor, or a shaft driven by the motor.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. In a hydroplane, a decked boat-shaped buoyant body, supporting planes at the sides of the body and at (or near) the height of its deck, propellers with shafts at the sides of the said body, and members adapted to hold the said propeller shafts at the height of the deck of the body during the flight of the hydroplane and to hold the shafts in a raised position when the hydroplane alights or rises from the water.

2. In a hydroplane, a decked boat-shaped buoyant body, supporting planes at the sides of the body and at (or near) the height of its deck, propellers with shafts at the sides of the said body, a transmission shaft, and members adapted to be swung about the transmission shaft and to hold said propeller shafts at the height of the deck of the said body during the flight of the hydroplane and to hold the shafts in a raised position when the hydroplane alights or rises from the water.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MAX WINCKELMANN.

Witnesses:

KARL-HANS BUSCH,
PAUL WOLPTELLER.