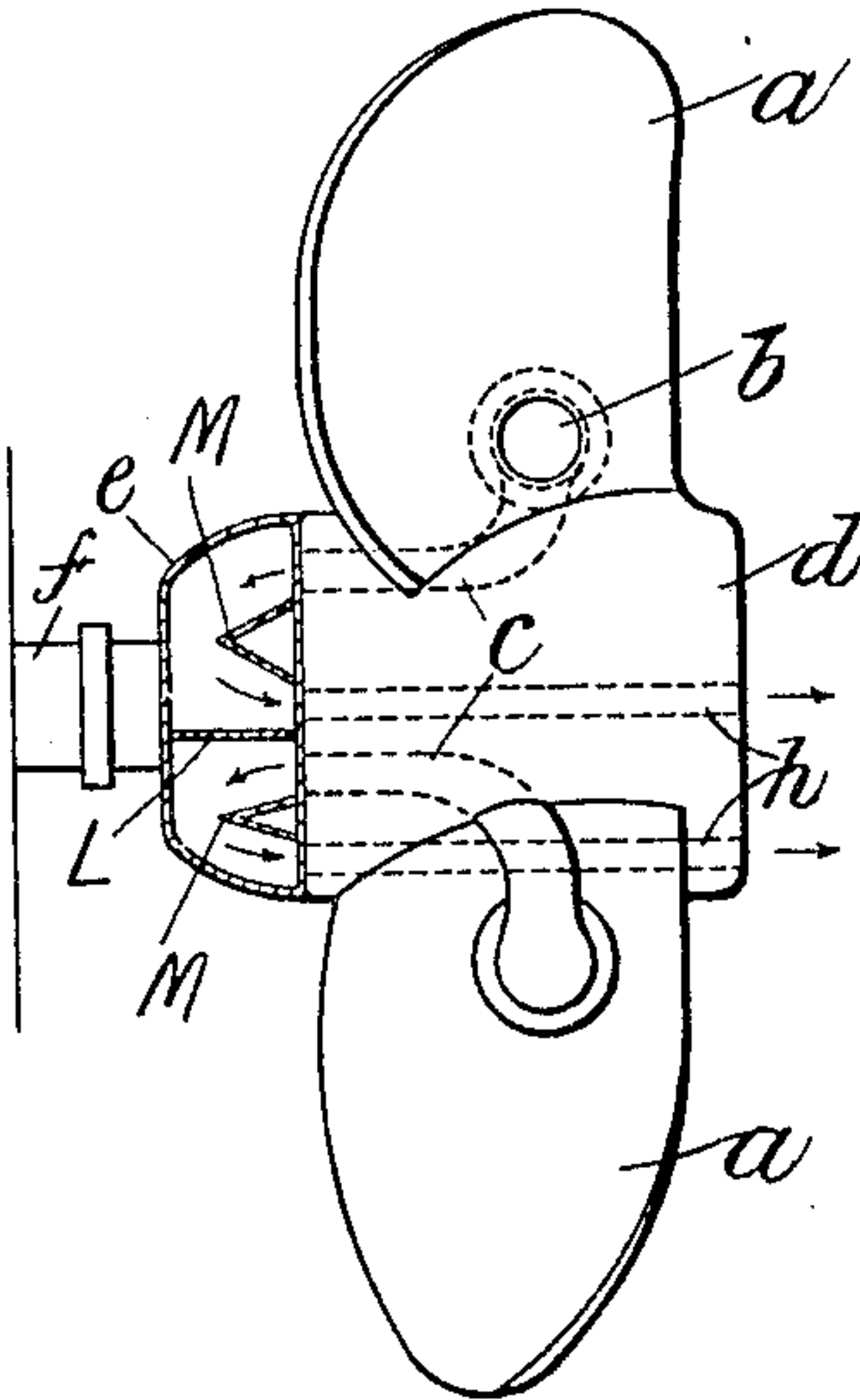


No. 887,486.

PATENTED MAY 12, 1908.

W. LOVIS.
PROPELLING DEVICE FOR SHIPS.
APPLICATION FILED NOV. 30, 1907.



*With a felt piece for
preventing leakage of water
to the rear of the propeller*

Witnesses:-

*C. M. Sweeney
J. D. Cling*

Inventor:-

*William Lovis,
by Calvin Calver
Att'y.*

UNITED STATES PATENT OFFICE.

WILLIAM LOVIS, OF LONDON, ENGLAND.

PROPELLING DEVICE FOR SHIPS.

No. 887,486.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed November 30, 1907. Serial No. 404,524.

To all whom it may concern:

Be it known that I, WILLIAM LOVIS, a subject of the King of the United Kingdom of Great Britain and Ireland, and resident of London, England, have invented a certain new and useful Improvement in Propelling Devices for Ships, of which the following is a specification.

This invention relates to improvements in propelling devices for ships and has for its object to provide a propeller in which the propulsive power obtained by the direct action of the blades on the water is increased by the action of a jet or jets of water which, as the propeller revolves is or are caused to flow through tubular passages in the propeller boss into a kind of chamber on the propeller shaft. Said chamber is divided into sections according to the number of blades, each blade having its own water course in the chamber. Exhaust tubes are led from said chamber and are passed through the propeller boss so that rearwardly directed jets are forced against the water behind the propeller and by reaction assist in driving the ship ahead.

As illustrated by the accompanying diagram which shows my invention applied to a three bladed propeller each propeller blade *a* has a perforation *b* and has cast thereto a tubular passage *c* which is led to the propeller boss *d*. The tubular passages *c* are led into a hollow casing *e* at the front of the propeller and arranged to rotate with the propeller shaft *f*. Exhaust tubes *h* of smaller diameter than the tubes *c* are led from the casing through perforations in the boss *d*.

L are partitions in the casing dividing the casing into compartments according to the number of blades, a perforation in each blade being connected with a separate compartment through an inlet passage *c*. *M, M* are triangular partitions which give the water the desired course and prevent accumulation of water at the rear end of the casing.

By the action of the propeller revolving the water is forced through the perforation *b* in each blade *a* and through the tube *c*, and

enters the casing *e* with great force. The water then returns through the tubes *h*. The tubes *c* being of greater area than the tubes *h* the pressure in the casing is maintained and the water returning through the tubes *h* strikes the water at the rear end of the boss with great force, thus increasing the speed of the ship.

Under the invention the dead water around the boss is reduced to a minimum and is utilized for increasing the speed of the ship.

Having described my invention what I claim and desire to secure by Letters Patent of the United States is:—

1. A propelling device for ships comprising a boss or hub having blades each of which has a perforation, a rotary hollow casing at the front of said propeller and the chamber of which is divided into compartments, inlet passages connecting said perforations with said compartments, and exhaust passages from said compartments to the rear of said boss or hub.

2. A propelling device for ships comprising a boss or hub having blades each of which has a perforation, a rotary hollow casing at the front of said propeller and the chamber of which is divided into compartments, inlet passages connecting said perforations with said compartments, exhaust passages from said compartments to the rear of said boss or hub, and triangular partitions in said compartment to assist the flow of water from said inlet passages to said exhaust passages.

3. A propelling device for ships comprising a boss or hub having blades each of which has a perforation, a rotary hollow casing at the front of said propeller, inlet passages connecting said perforations with the chamber of said casing, and exhaust passages from said chamber to the rear of said boss or hub.

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

WILLIAM LOVIS.

Witnesses:

ALFRED THOMAS BARBERY,
H. D. JAMESON.