

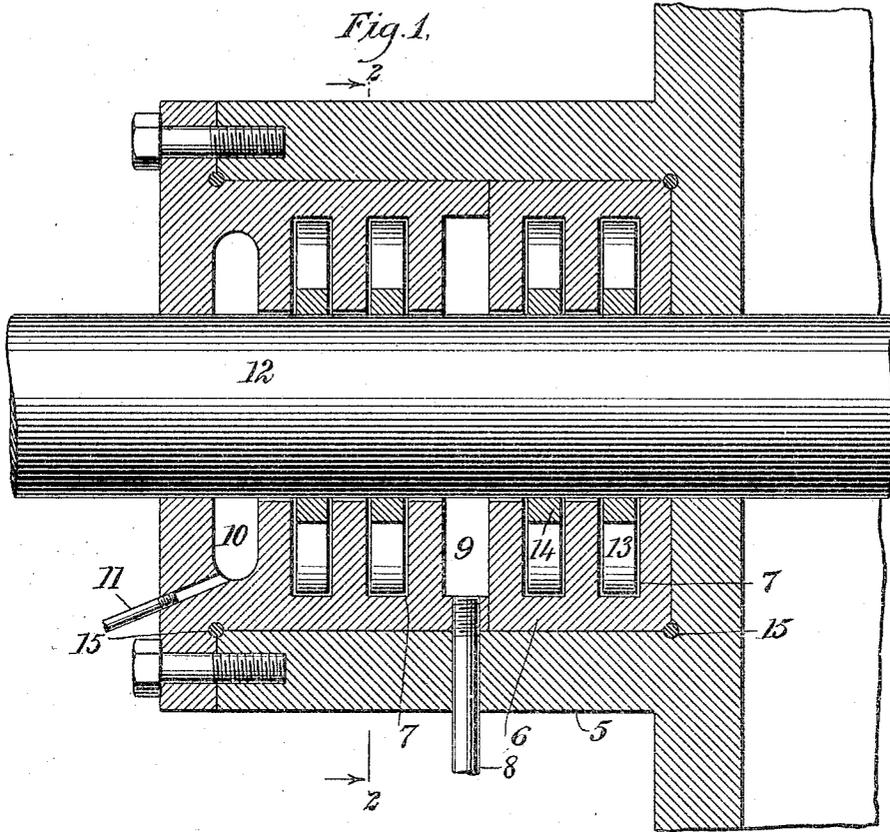
No. 776,296.

PATENTED NOV. 29, 1904.

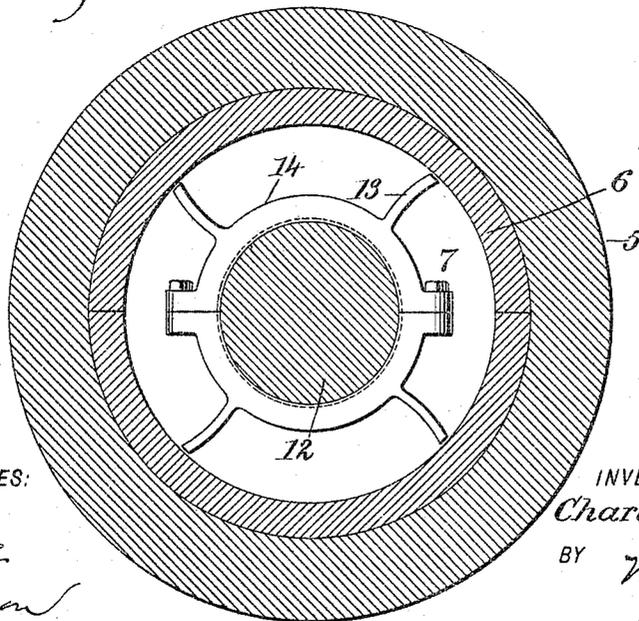
C. L. COOK.  
SHAFT LIQUID SEAL PACKING.

APPLICATION FILED MAR. 8, 1904.

NO MODEL.



*Fig. 2.*



WITNESSES:

*Edw. Thorpe.*  
*C. R. Ferguson*

INVENTOR

*Charles Lee Cook*

BY

*Munn*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

CHARLES LEE COOK, OF LOUISVILLE, KENTUCKY.

## SHAFT LIQUID-SEAL PACKING.

SPECIFICATION forming part of Letters Patent No. 776,296, dated November 29, 1904.

Application filed March 8, 1904. Serial No. 197,141. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES LEE COOK, a citizen of the United States, and a resident of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Shaft Liquid-Seal Packing, of which the following is a full, clear, and exact description.

This invention relates to improvements in packing for shafting, and particularly the shafting of turbine-motors and propeller-shafts of steamships, an object being to provide a novel form of packing in which a liquid is employed as a packing or sealing medium, rendering the packing impervious to atmospheric pressure.

I will describe a shaft-packing embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal section of a shaft-packing embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

The packing comprises an outer casing 5, in which is arranged an inner casing 6. The inner casing 6 is provided with a plurality of chambers 7 for receiving a liquid sealing medium—such, for instance, as water—the water entering through a pipe 8, leading into the chamber 9 of the inner packing-case, and the water escapes through an end chamber 10 and a small tube 11.

Secured to the shaft 12 and operating in each chamber 7 are fingers 13, these fingers being extended from collars 14, which, as here shown, consist each of two sections bolted together. At the ends of the inner casing are copper gaskets 15.

In the operation the water will pass through the several chambers, and the rapid motion of the fingers 13 will throw the water outward, which forms an impervious wall to the pressure of steam or other motive agent.

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

1. A shaft-packing comprising a liquid-receiver surrounding the shaft, and means for causing a continuous circulation of liquid through the receiver lengthwise of the shaft.

2. A shaft-packing comprising a casing surrounding the shaft, and having a plurality of annular chambers for receiving a liquid flow, and means carried by the shaft for forcing the liquid in an outward direction.

3. A shaft-packing comprising a casing surrounding the shaft and having a plurality of chambers, and fingers carried by the shaft and extended into said chambers.

4. A shaft-packing comprising an outer casing, an inner casing arranged in an outer casing and provided with chambers for receiving water, an inlet-pipe leading into the chambers, a discharge-tube, and fingers carried by the shaft and operating in said chambers.

5. A shaft-packing comprising an outer casing, an inner casing arranged in an outer casing and having chambers for receiving water, a receiving-chamber for water, a pipe leading into said chamber, a discharge-tube at one end of the inner casing, and fingers carried by the shaft and extended into the chambers of the inner casing.

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

CHARLES LEE COOK.

Witnesses:

HOMER W. BATSON,  
DENNIS S. SLAUGHTER.