

(No Model.)

M. W. MURPHY.

PUMP VALVE.

No. 378,846.

Patented Feb. 28. 1888.

Fig. 1

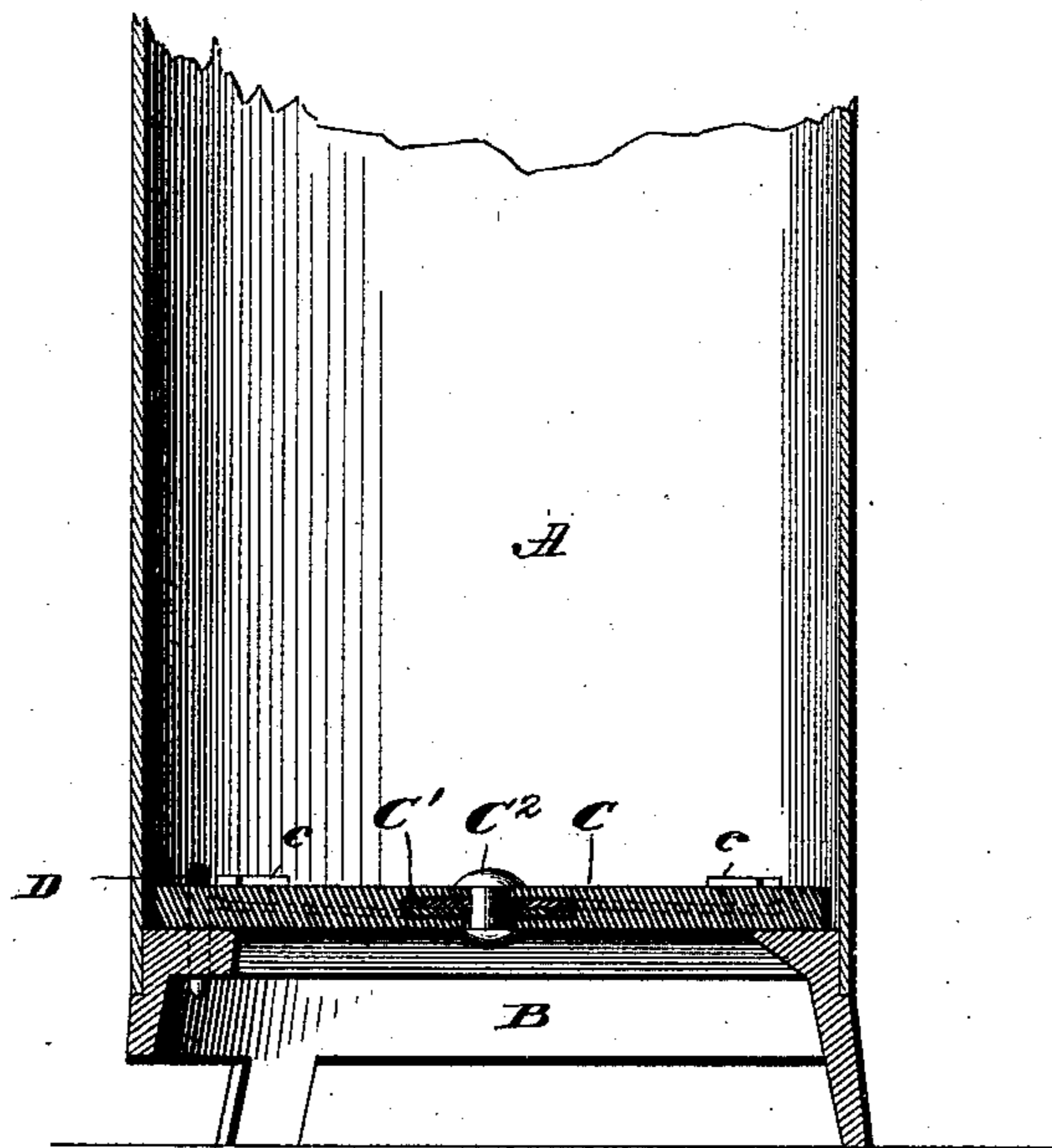
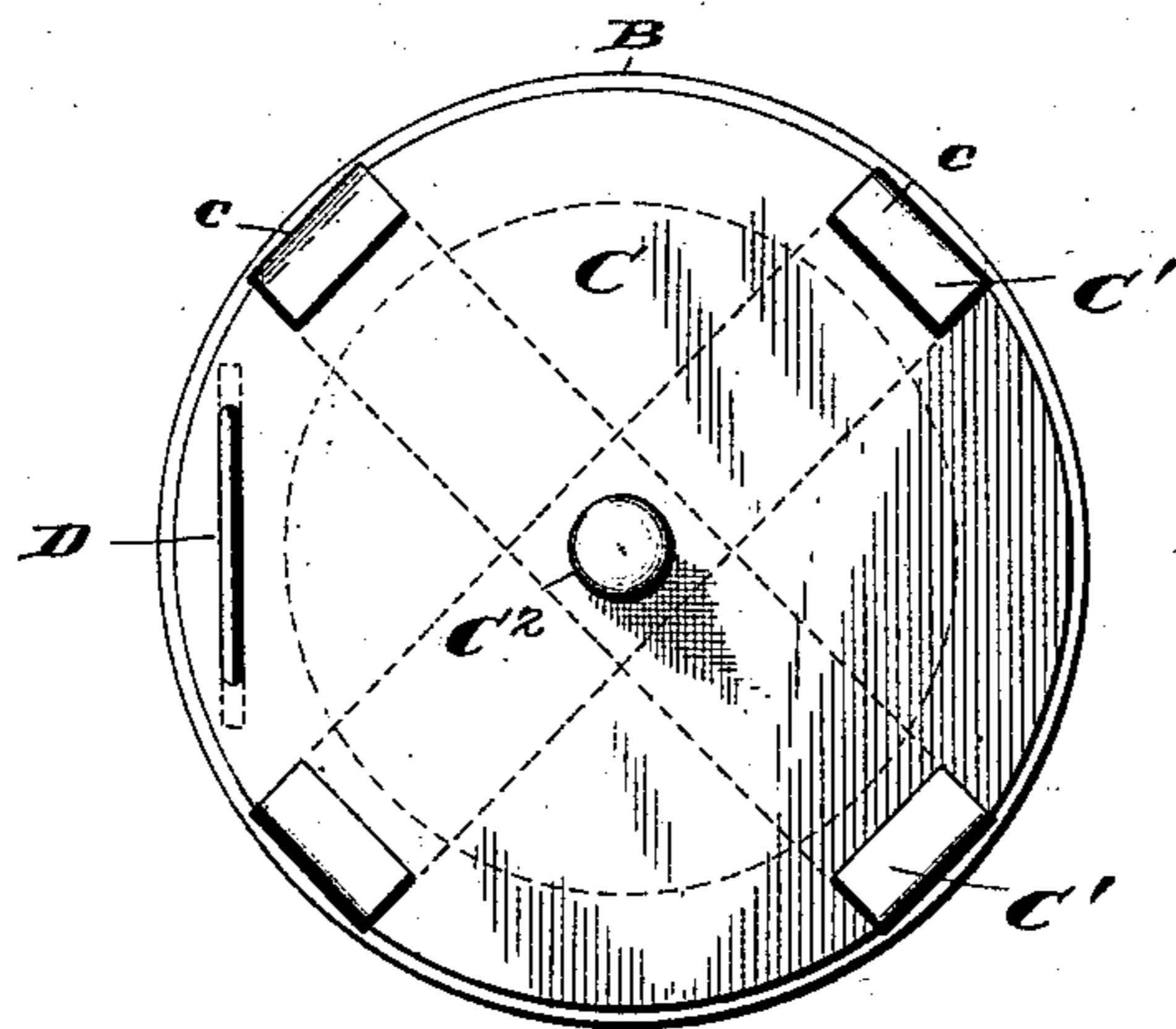


Fig. 2



Michael W. Murphy.

INVENTOR.

WITNESSES

L. S. Elliott
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[Signature]
Attorney.

UNITED STATES PATENT OFFICE.

MICHAEL W. MURPHY, OF WHITEHALL, NEW YORK.

PUMP-VALVE.

SPECIFICATION forming part of Letters Patent No. 378,846, dated February 28, 1888.

Application filed November 23, 1887. Serial No. 255,988. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL W. MURPHY, a citizen of the United States of America, residing at Whitehall, in the county of Washington and State of New York, have invented certain new and useful Improvements in Pump-Valves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful Improvements in pump-valves; and it consists in the novel construction and arrangement of the parts, which will be more fully hereinafter described, and particularly pointed out in the claim.

The object of my invention is to strengthen the part of the valve to form a resistance against wear and breakage of the parts thereof caused by continuous action; and to this end I provide a rubber valve with a metallic re-enforcement. I attain this object by the improvement illustrated in the accompanying drawings, wherein like letters of reference indicate similar parts in the several views, and in which—

Figure 1 is a transverse vertical section of a pump-stock and valve-seat, with my improvement shown in connection therewith. Fig. 2 is a top plan view of my improved form of valve.

A indicates the pump-stock, and B the valve-seat, to which the pump-stock is connected or secured, the said parts being of any preferred form of construction.

My improvement consists, essentially, in the formation of a valve, C, cast from rubber, and while undergoing the process of casting two metallic strips, C', are inserted therein and cov-

ered by the rubber, being of about the width, length, and arrangement as shown in Fig. 2 of the drawings. These metallic strips C' cross each other at the central portion of the valve C, and are turned upward at their ends and over the top surface of the valve, as at c. A bolt, C², is passed through the central portion of the valve C and through the two strips C'. By this means the valve is re-enforced and strengthened, being made almost entirely of rubber, with the exception of the metallic strips above referred to.

The inner side of the valve C is secured to the valve-seat B by means of a metallic staple, D, and this staple forms the only means of hinging the valve C other than the hinge action formed by the elasticity of the valve.

The operation of this valve will be readily understood, opening when the piston-head is raised and closing on the downward pressure of said piston-head.

This form of valve is especially adapted for use in connection with boat-pumps; but, if desired, may be employed with work in any other known form of pump. It may be readily applied in connection with any form of valve-seat, the main feature of my improvement being the construction of a rubber valve with re-enforcing strips embodied therein, as set forth.

I claim—

A valve for pumps consisting of a rubber disk having metallic strips embedded therein, united at their central portion by a suitable bolt, and turned upward at their ends over the top of the said disk, as shown and described.

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

MICHAEL W. MURPHY.

Witnesses:

CHARLES G. LUTHER,
DAVID A. RODEL.