

(No Model.)

E. W. MACKENZIE-HUGHES.
CYLINDER CASING.

No. 473,469.

Patented Apr. 26, 1892.

Fig. 1.

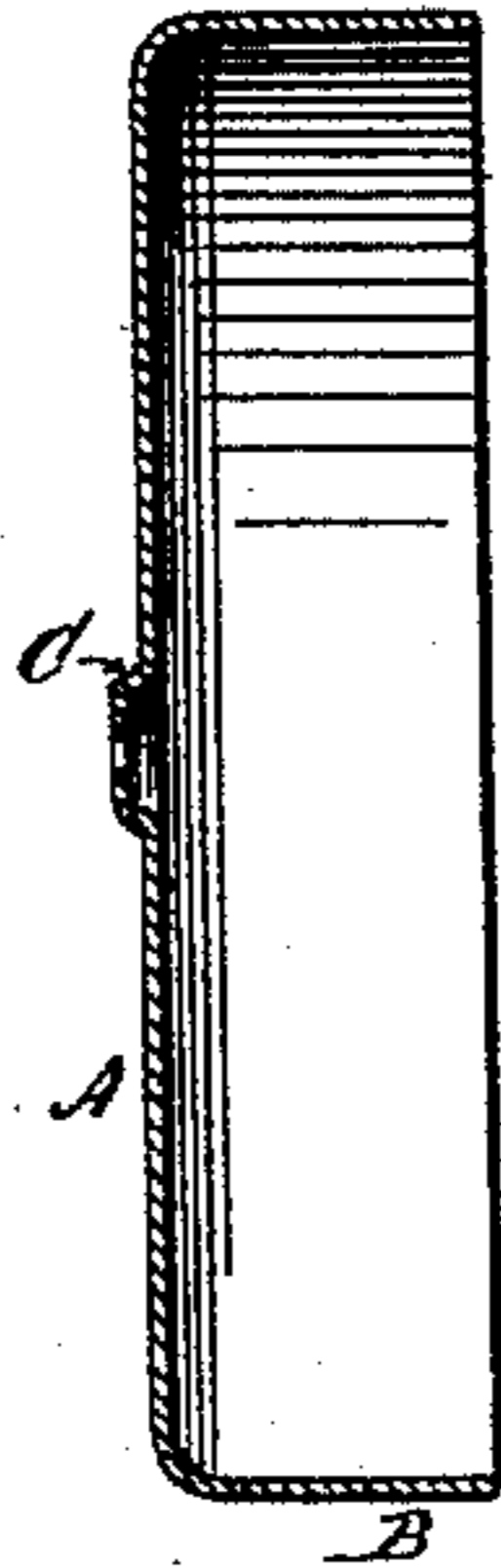


Fig. 2.

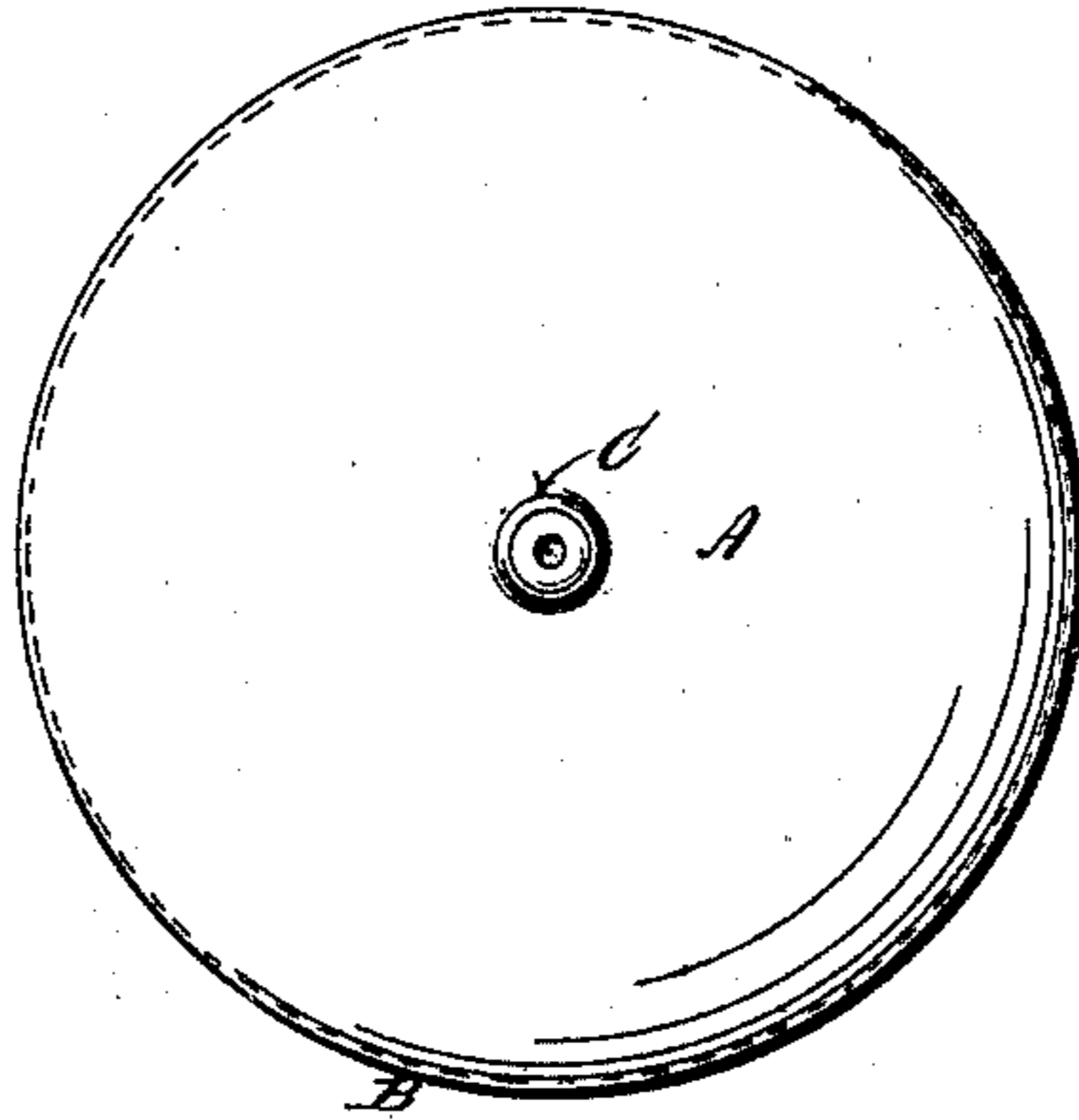


Fig. 3.

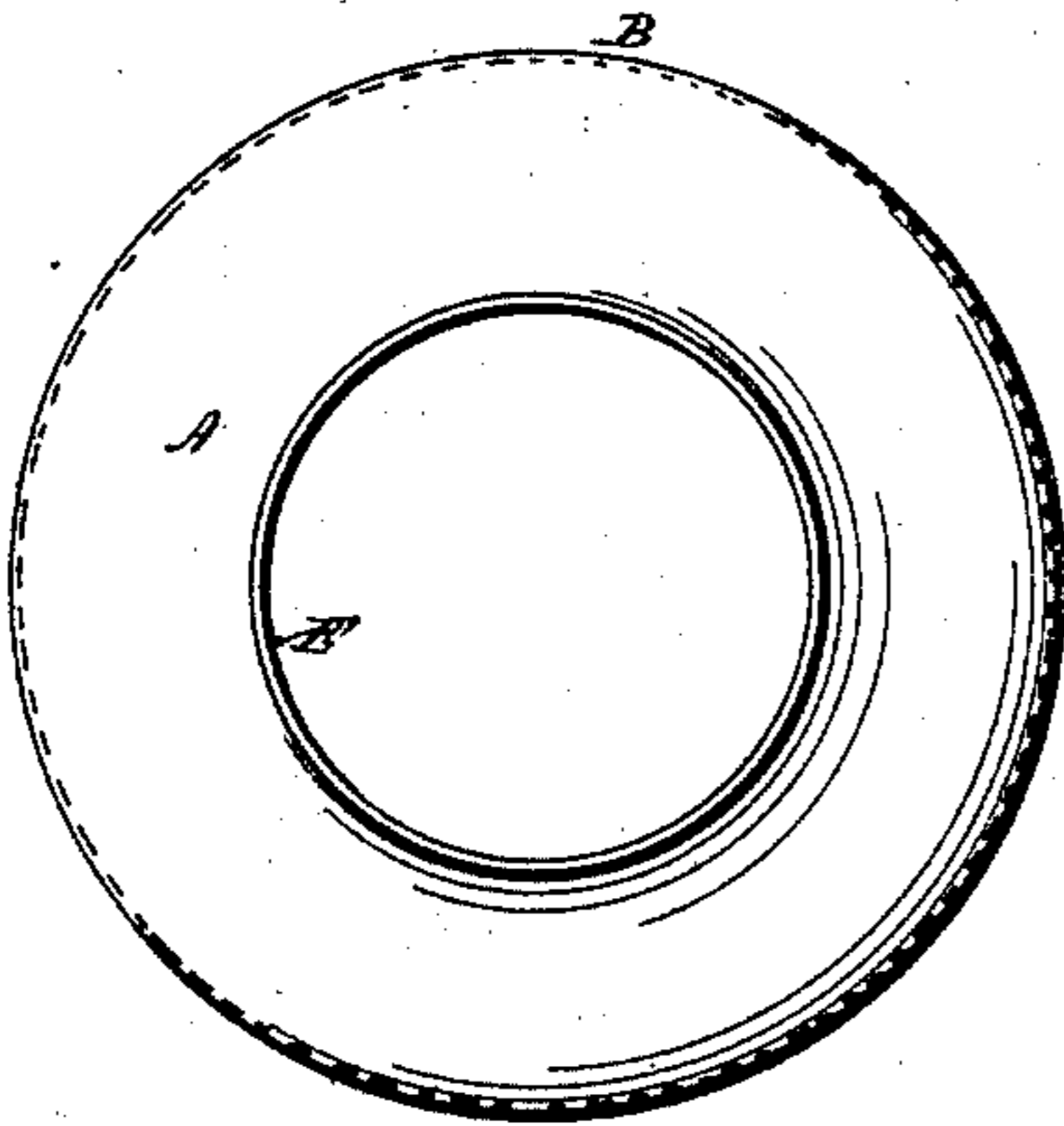
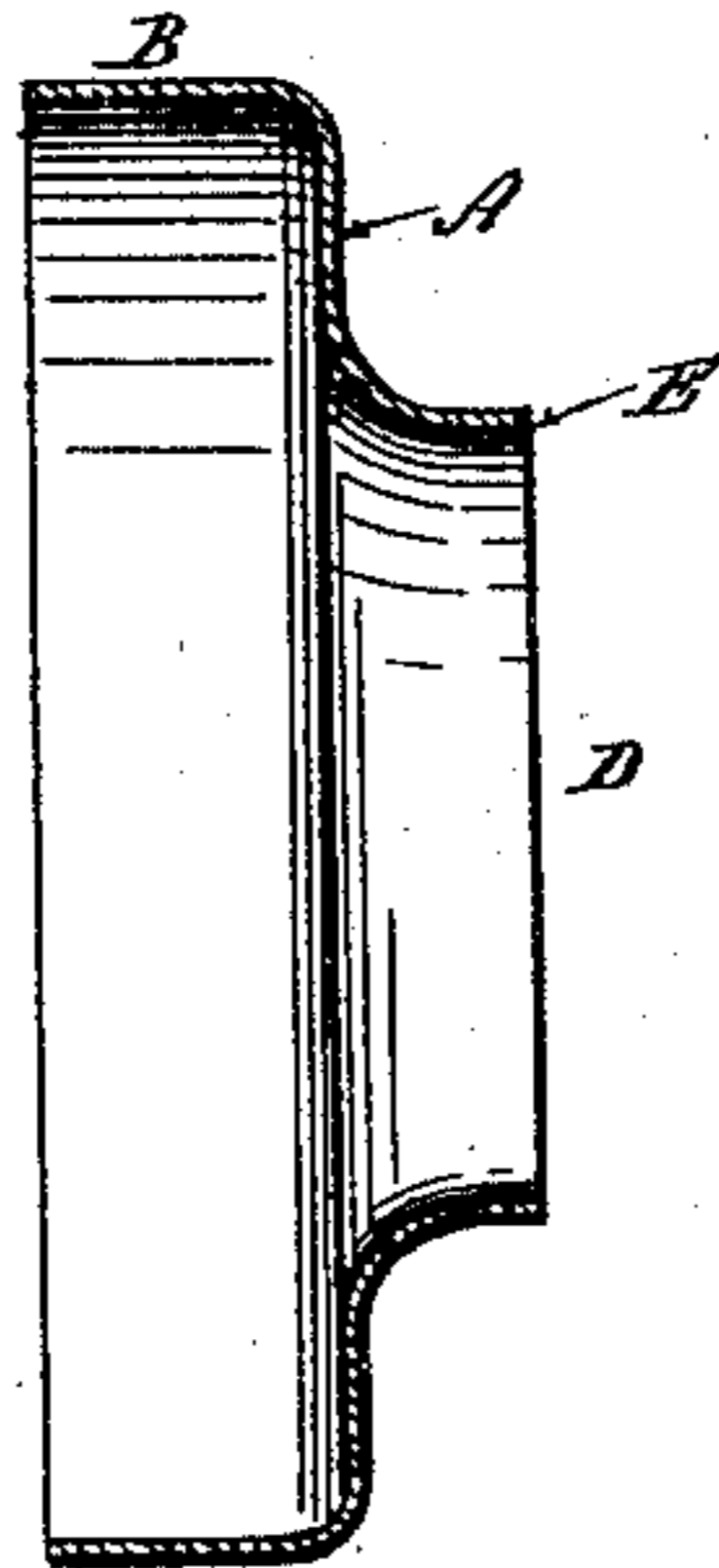


Fig. 4.



Witnesses:
D. W. Gardner
H. Coutant.

Inventor.
Edward William Mackenzie Hughes
By his Attorney,
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UNITED STATES PATENT OFFICE.

EDWARD WILLIAM MACKENZIE-HUGHES, OF CHICAGO, ILLINOIS, ASSIGNOR
TO THE FOX SOLID PRESSED STEEL COMPANY, OF SAME PLACE.

CYLINDER-CASING.

SPECIFICATION forming part of Letters Patent No. 473,469, dated April 26, 1892.

Application filed July 3, 1889. Serial No. 316,439. (No model.)

To all whom it may concern:

Be it known that I, EDWARD WILLIAM MACKENZIE-HUGHES, of Chicago, Cook county, Illinois, have invented a new and useful Improvement in Cylinder-Casings, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to an improvement in cylinder-casings, and is made of pressed steel of a single piece of metal.

My invention is designed to protect and cover both ends of the cylinder and will be readily understood from the accompanying drawings, in which—

Figure 1 represents a vertical section; Fig. 2, an end elevation of the cylinder-casing opposite the piston-rod, and Figs. 3 and 4 the same views of the cylinder casings at the end through which the piston-rod passes.

A represents the casing, having the internally-projecting flange B. At the closed end of the cylinder there is a small flanged boss

or projection C, while at the end of the cylinder through which the piston-rod passes there is a larger opening D, having the flange E, as shown. These structures are pressed from one piece of metal in one operation by suitable dies.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The pressed-steel cylinder-casing formed of one piece of metal having a flat portion and the inwardly-projecting flange B, substantially as described.

2. The cylinder-casing A, having the inwardly-projecting flange B and the outwardly-projecting flange E, all pressed from one piece of steel, substantially as described.

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

EDWARD WILLIAM MACKENZIE-HUGHES.

Witnesses:

H. CANTANT,
ANTHONY GREF.