

C. LEAVITT.

Hub.

No. 37,451.

Patented Jan. 20, 1863

Fig. 1

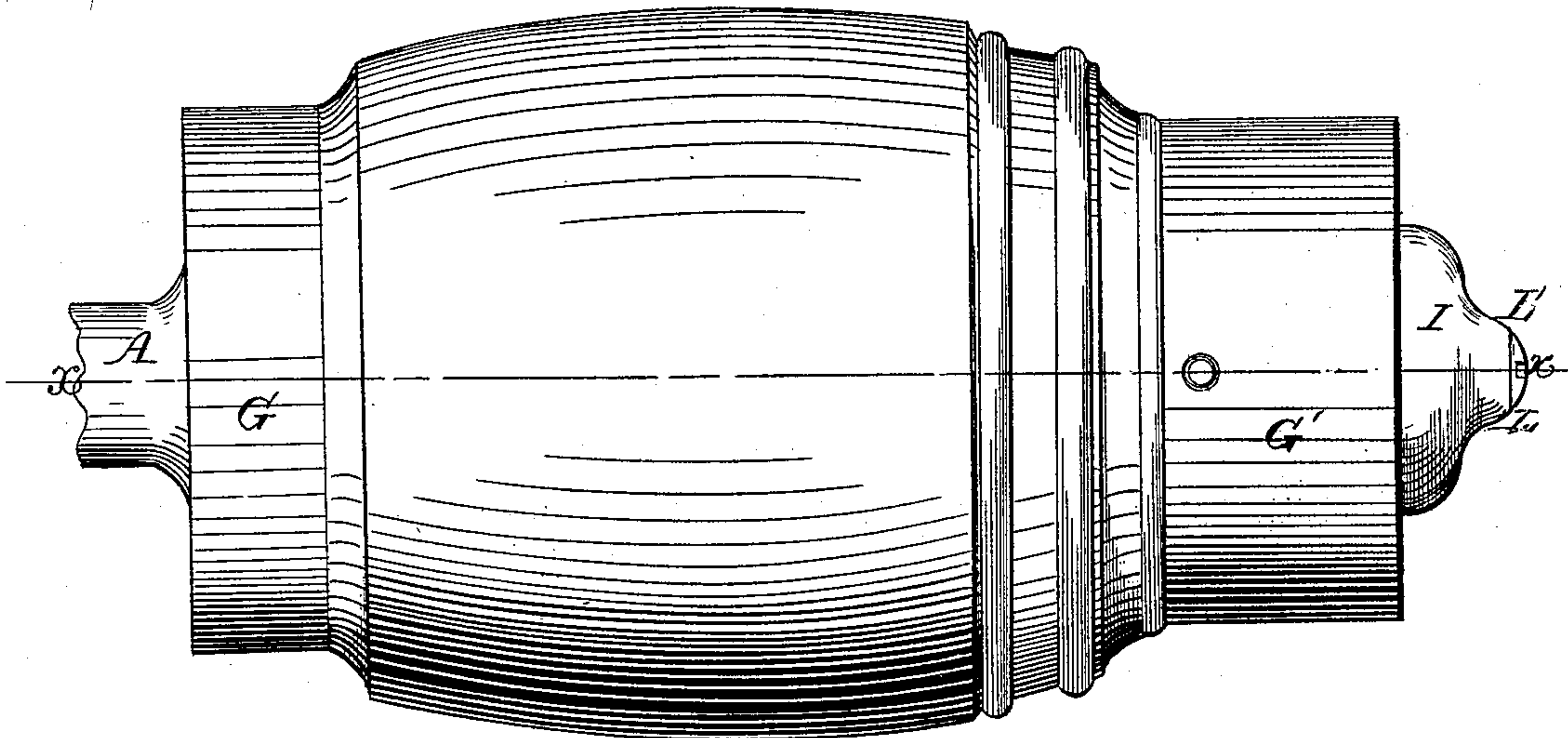
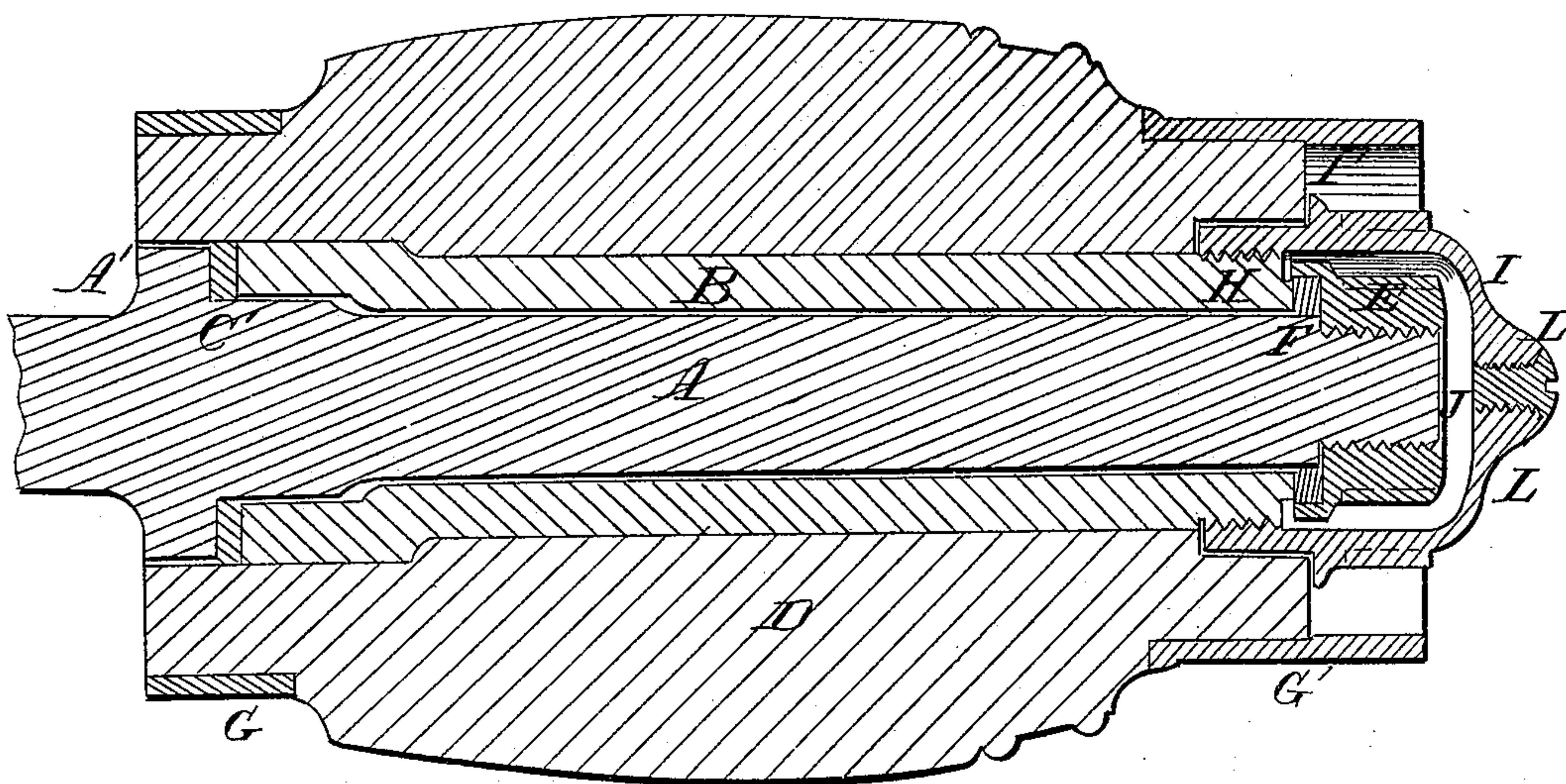


Fig. 3



Witnesses,
J. Brainerd
W. D. Purridge

Inventor,
Charles Leavitt

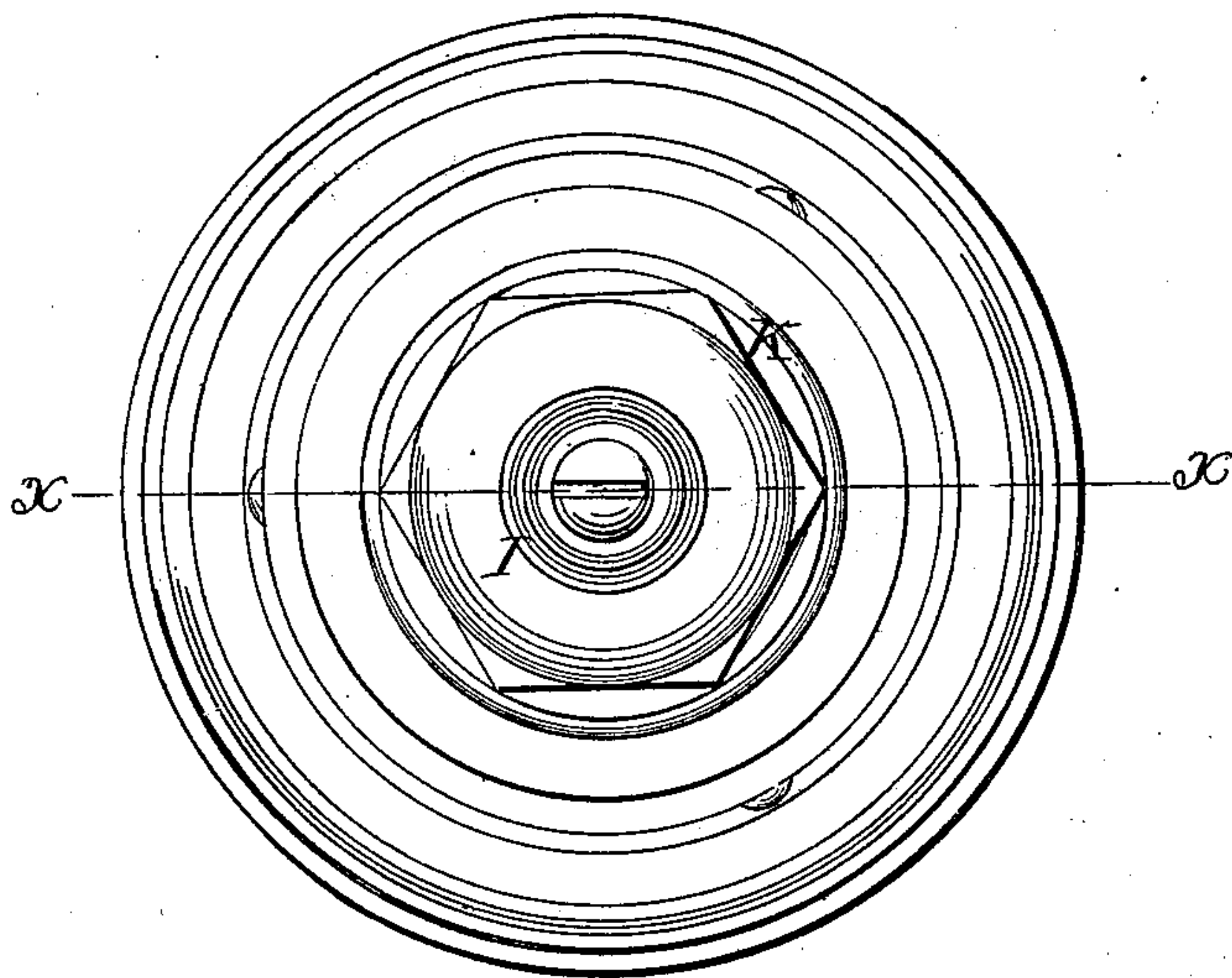
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Fig 2



Witnesses;
J Brainerd
W H Burridge

Inventor;
Charles Leavitt

UNITED STATES PATENT OFFICE.

CHARLES LEAVITT, OF CLEVELAND, OHIO.

IMPROVEMENT IN CARRIAGE-HUBS.

Specification forming part of Letters Patent No. 37,451, dated January 20, 1863.

To all whom it may concern:

Be it known that I, CHARLES LEAVITT, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Carriage-Hubs; and I do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the hub. Fig. 2 is an end view, and Fig. 3 is a longitudinal section in the direction of the line *xx*.

Like letters denote like parts in the several views.

The nature of my invention relates to a hub so constructed that it may be more readily oiled than in the ordinary way without removing the wheel from the axle or taking off the cap from the end of the hub, and at the same time forming an oil-tight chamber, thereby preventing the oil from leaking or being absorbed by the hub or spokes, also effectually excluding the dust and muddy water.

All the leading points in this invention are shown in Fig. 3, and the letters of reference refer particularly thereto.

This invention is applicable to any kind of hub, whether made of wood or metal. When a wooden hub is used, it is important that the oil should be kept wholly within the pipe-box, for if the oil is allowed to come in contact with the ends of the spokes it is liable to loosen them, and when once becoming thus loosened it is impossible thereafter to render them tight. By my improvement the hub is wholly protected from the oil.

In Fig. 3, A represents the axle, and B the pipe-box. That portion of the axle that fits the heel of the hub is enlarged, as seen at A', and between the shoulder thus formed and the heel of the pipe-box there is interposed a leather packing, C. D represents the hub, and the pipe-box fits closely the interior, so that no oil can work between the box and the hub. The forward end of the axle is provided with a nut, E, between which and the forward end of the pipe-box is also interposed a leather packing, F. Both this and the packing C are designed to prevent concussion between the heel A and the box on the one hand and the nut E and the forward end of the box on the other hand. Both the heel of

the hub and the forward end are banded in usual manner, as shown at G G'. The leather packing at the ends of the pipe-box causes the carriage to run without noise, as well as to prevent concussion. The forward end of the pipe-box is provided with a screw-thread on its exterior surface, as seen at H, around which is a cavity in the hub to receive the cap I. This cap I has a shoulder, I', which fits accurately the end of the hub D, as seen at I, and serves two purposes. First, it acts as a jam-nut to prevent the cap I from getting loose; and, second, to prevent the oil from escaping from the chamber by the binding of the screw-threads on the pipe-box and in the cap I. The cap I is sufficiently large to form an oil-chamber, J, inside thereof, and which surrounds the nut E. The cap I has upon its exterior a hexagonal surface, K, to fit the wrench used in putting on, or removing the cap. At the outer end of the cap I, and in the center thereof, is a hole, L, for the introduction of the oil for lubricating the axle. This hole is provided with a screw, L', which fits oil-tight; or it may be closed with a cork or in any other convenient manner. For the purpose of oiling the carriage this screw L' (or the plug) is removed, and with a slender-nosed oil can the chamber J is filled up to the opening and the screw or plug again inserted. The revolution of the wheel carries the oil constantly up to the top of the axle, and it gradually works its way to the heel of the hub, and if suitable oil is used a set of wheels may be run for years without ever becoming dry or gummy, for as not the least particle of dust or muddy water can get into the front end of the hub, and the oil working constantly backward, all of the dust that works in at the heel, together with the comminuted particles of iron worn from the box or axle, is carried out at the heel, and both the box and axle are thus kept clean.

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

The cap I, shoulder I', chamber J, and hole L, when combined with the pipe-box B, all the parts being arranged and operating as and for the purpose herein set forth.

CHARLES LEAVITT.

Witnesses:

W. H. BURRIDGE,
J. BRAINERD.