

J. Hughes,

Journal Box.

No. 106486.

Patented Aug. 16. 1870.

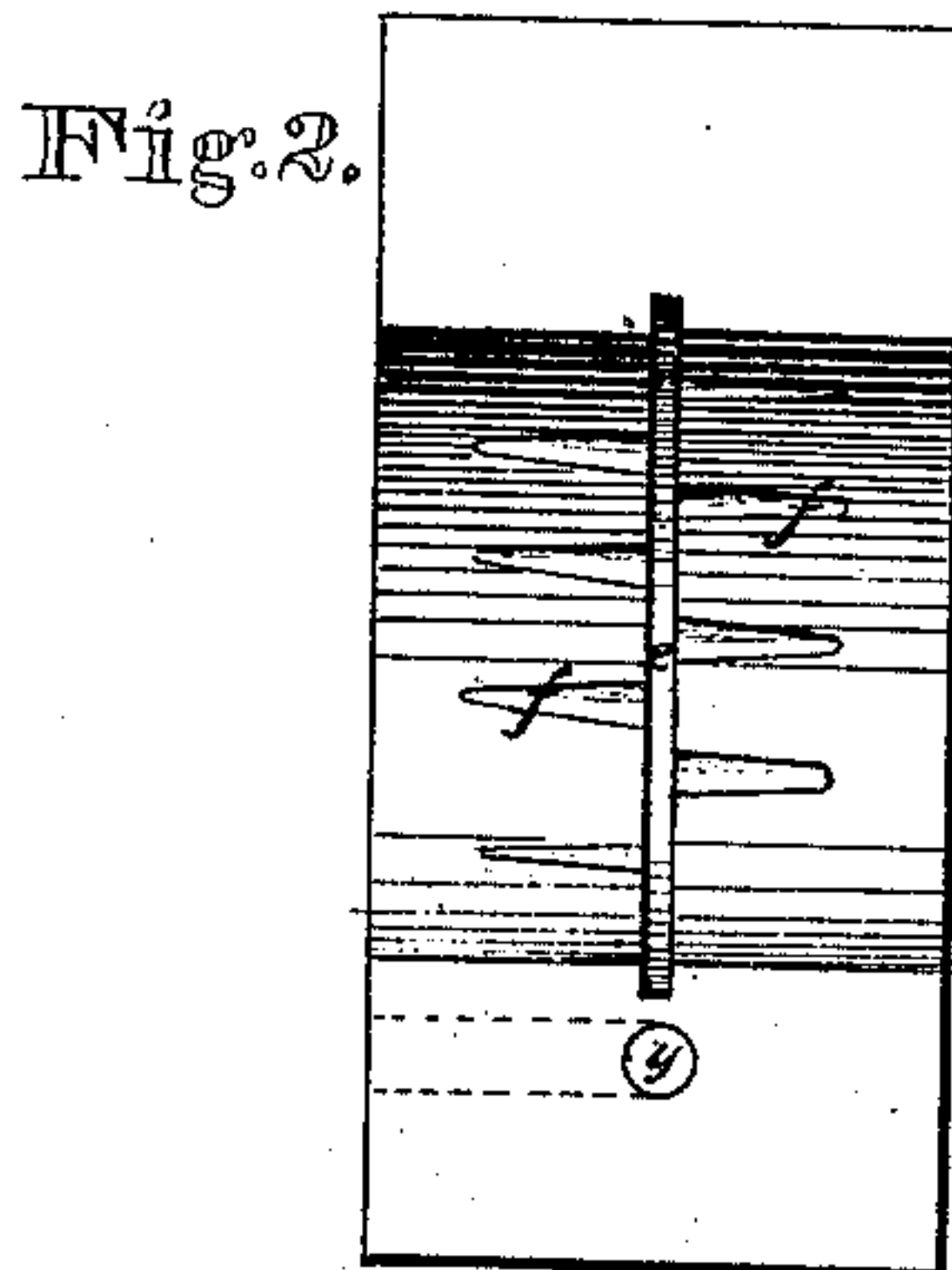
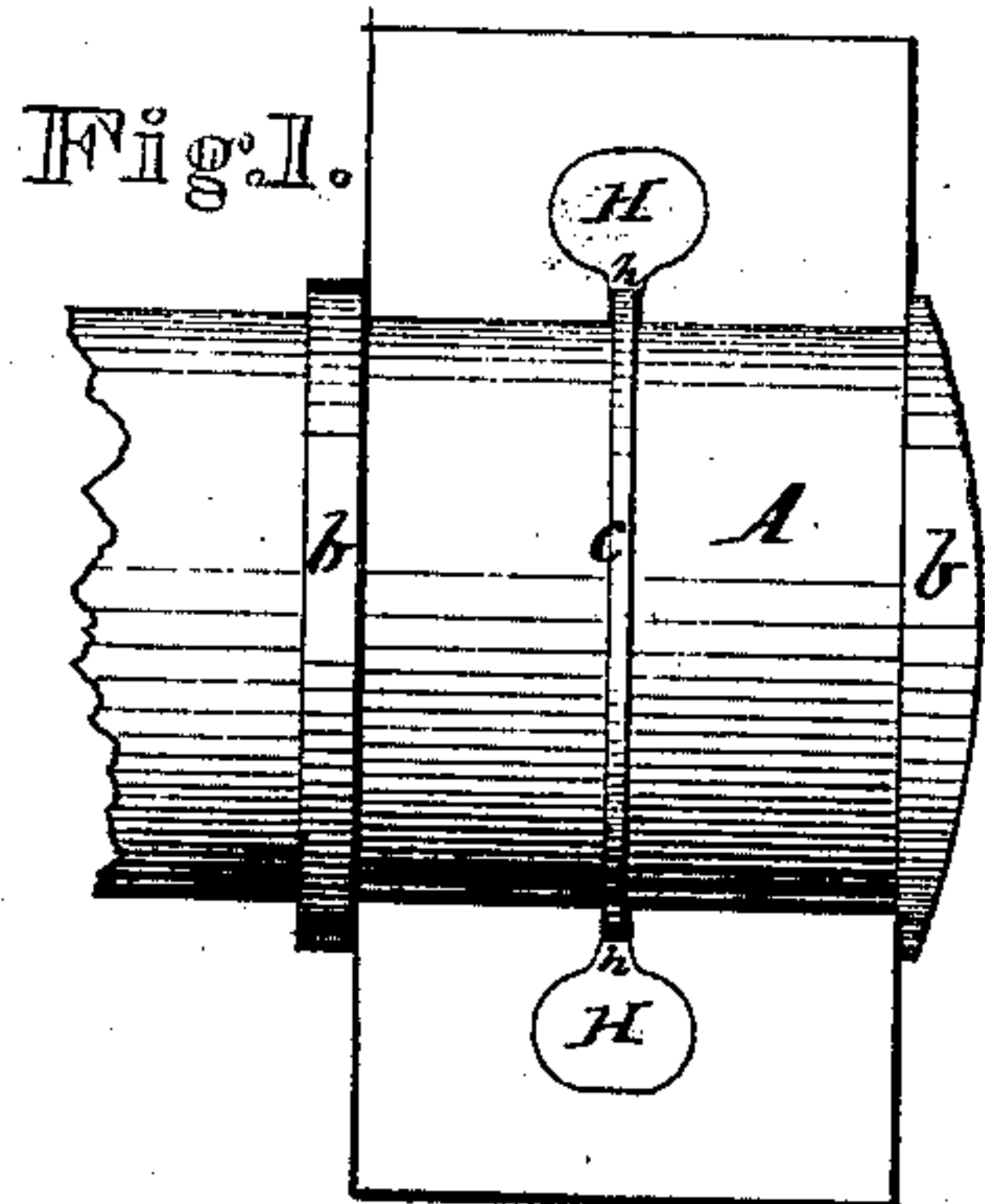


Fig. 3.

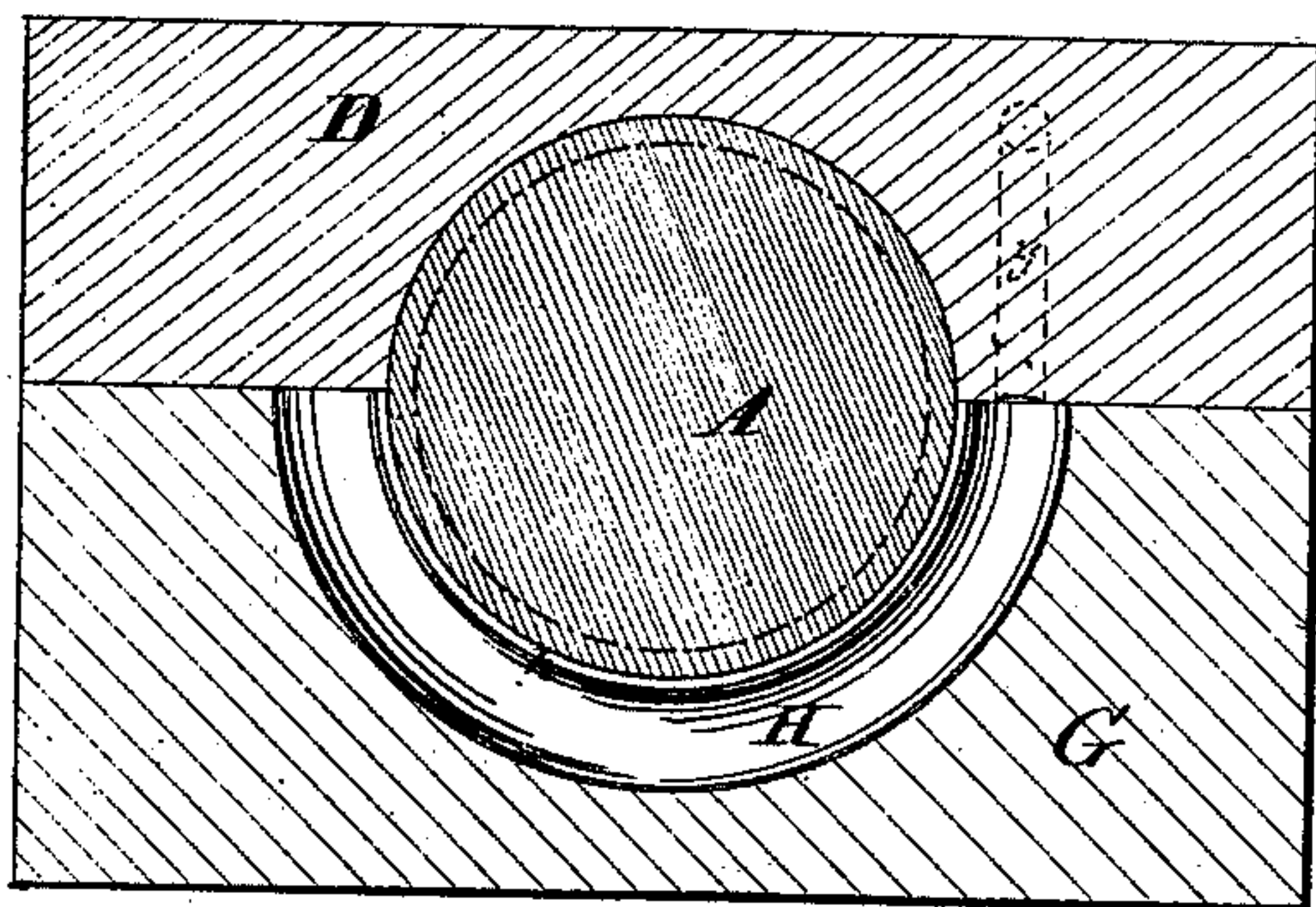
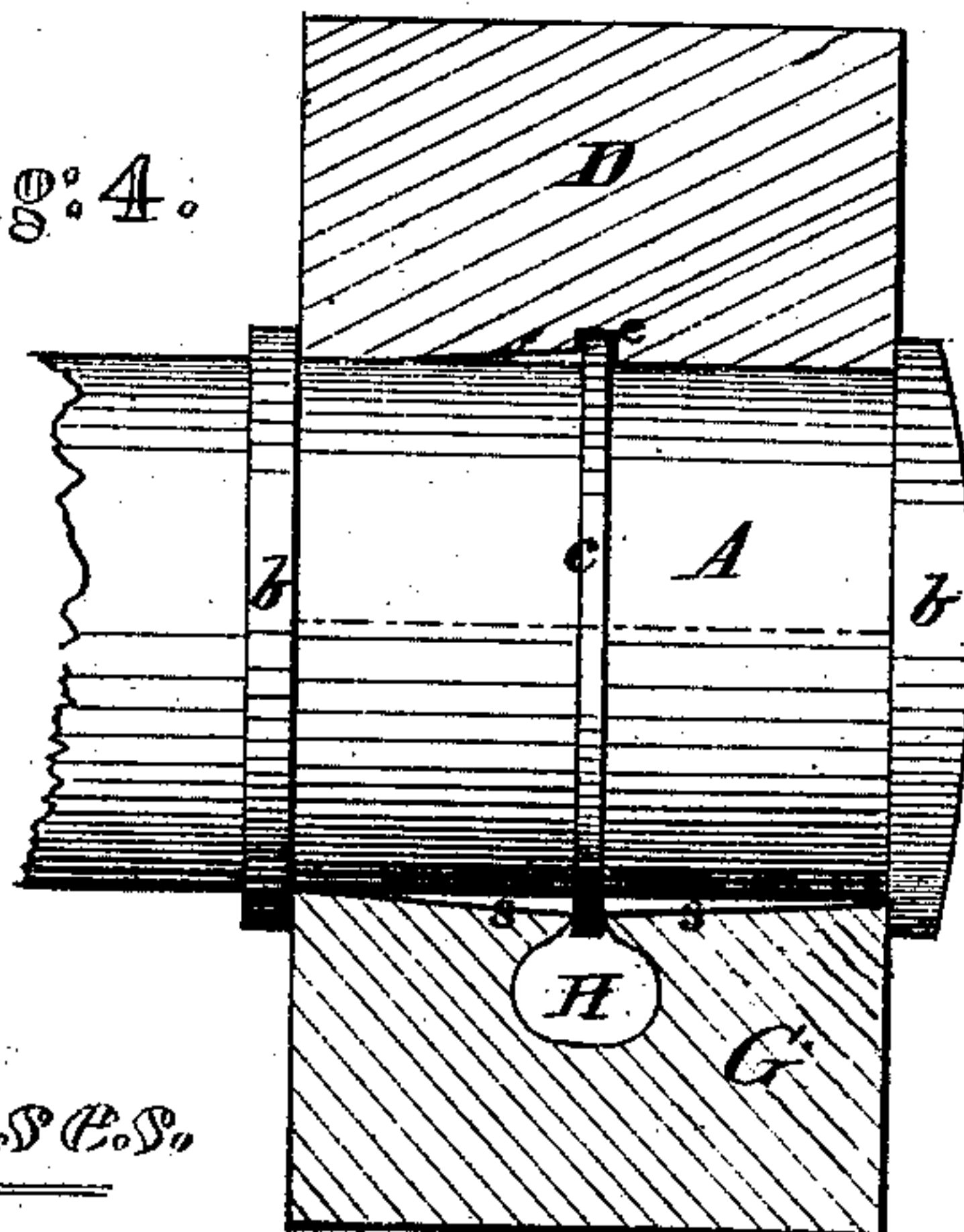


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN HUGHES, OF NEW BERNE, NORTH CAROLINA.

IMPROVED JOURNAL-BOX.

Specification forming part of Letters Patent No. 106,486, dated August 16, 1870.

To all whom it may concern:

Be it known that I, JOHN HUGHES, of New Berne, in the county of Craven and State of North Carolina, have invented a new and valuable Improvement in Journal-Boxes; and I do hereby declare that the following is a full, clear and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a top view of the lower half of my journal-box, with journal in place. Fig. 2 is a bottom view of the upper part of my journal-box. Fig. 3 is a vertical longitudinal section of the journal-box and journal. Fig. 4 is a vertical cross-section of the same.

My invention relates to an improved journal-box for the wheels of railway-cars; and it consists in the construction and novel arrangement of the parts thereof.

In order to accomplish the above objects, the journal of the car-wheel is provided with a central circular flange, arranged to dip into an oil-reservoir in the lower half of the journal-box. The upper half of the box is made to fit the journal closely, and is provided with a central channel to receive the flange of the journal. From this channel distributing-grooves run, at right angles therewith, and serve to convey the oil over the surface of the spindle. The lower half of the box contains the reservoir, into which the circular flange dips through a longitudinal opening in its top. The surface of the journal-seat in the lower half of the box is beveled toward the center or channeled opening to the reservoir for the purpose of producing the friction under the spindle and conveying the oil back into the reservoir.

The letter A of the drawings designates the spindle or journal of my car-wheel. It is provided at each end with a circular flange, *b*, which serves to keep the box tight and to prevent the journal from assuming an inclined position. In other words, these flanges assist in preserving the horizontal position of

the spindle. Around the central part of the journal is the distributing-flange *c*.

The upper half, D, of the journal-box is made to fit the journal closely, and the channel *e* is formed in it to receive the distributing-flange *c*, of the spindle. Grooves *f f* are arranged alternately at right angles with the channel *e*, and serve to convey the oil therefrom in the direction of the length of the spindle.

The lower half, G, of the box contains the oil-reservoir H. This reservoir is in the form of a tube, bent in semicircle, and cleft along the central line of the top for the admission of the distributing-flange *c*. The floor of the journal-seat inclines downward and inward from each edge toward the cleft *h*. By this means friction is reduced, as the journal does not come in contact with the lower half of the box, except at the edges of the journal-seat. At the same time the concave floor *s* of the journal-seat serves to return the superfluous and heated oil into the reservoir.

For the purpose of filling the reservoir, a perforation, *y*, is made from the side wall of the upper half of the box, through the same, into the tube H, at one end. In this box the bearing is designed to be upon the upper half of the journal-seat, the flanges and the contact with the outer edges of the lower seat being regarded as sufficient to determine the horizontal position of the journal.

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

The journal A, having flanges *b b* and *c*, in combination with the box D G, the lower half, G, of said box being beveled at *s*, when said box D G is provided with the tubular reservoir H, having the opening *h* and grooves *f f*, all constructed, arranged, and operated as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JNO. HUGHES.

Witnesses:

D. T. CARRAWAY,
EDWARD B. ROBERTS.