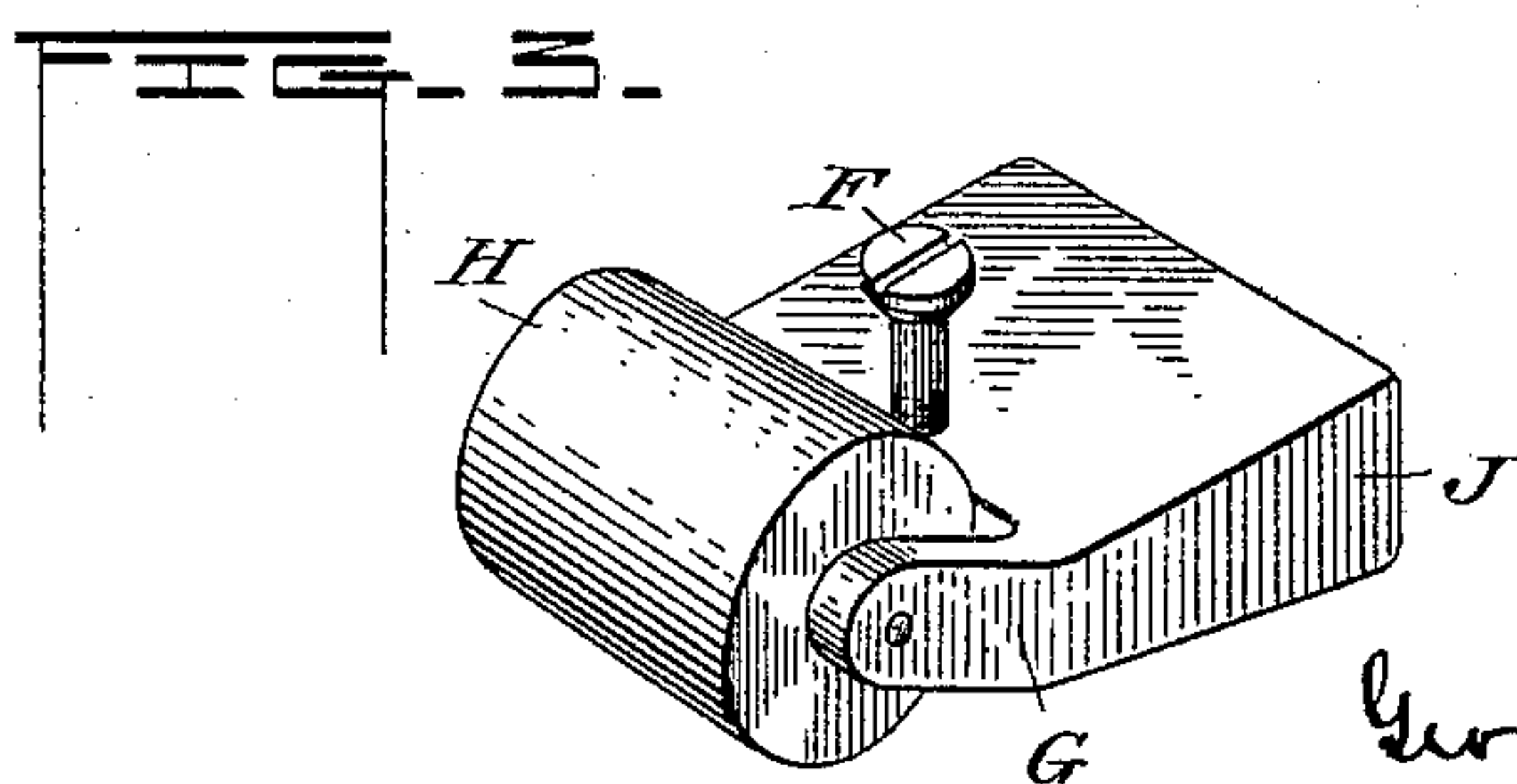
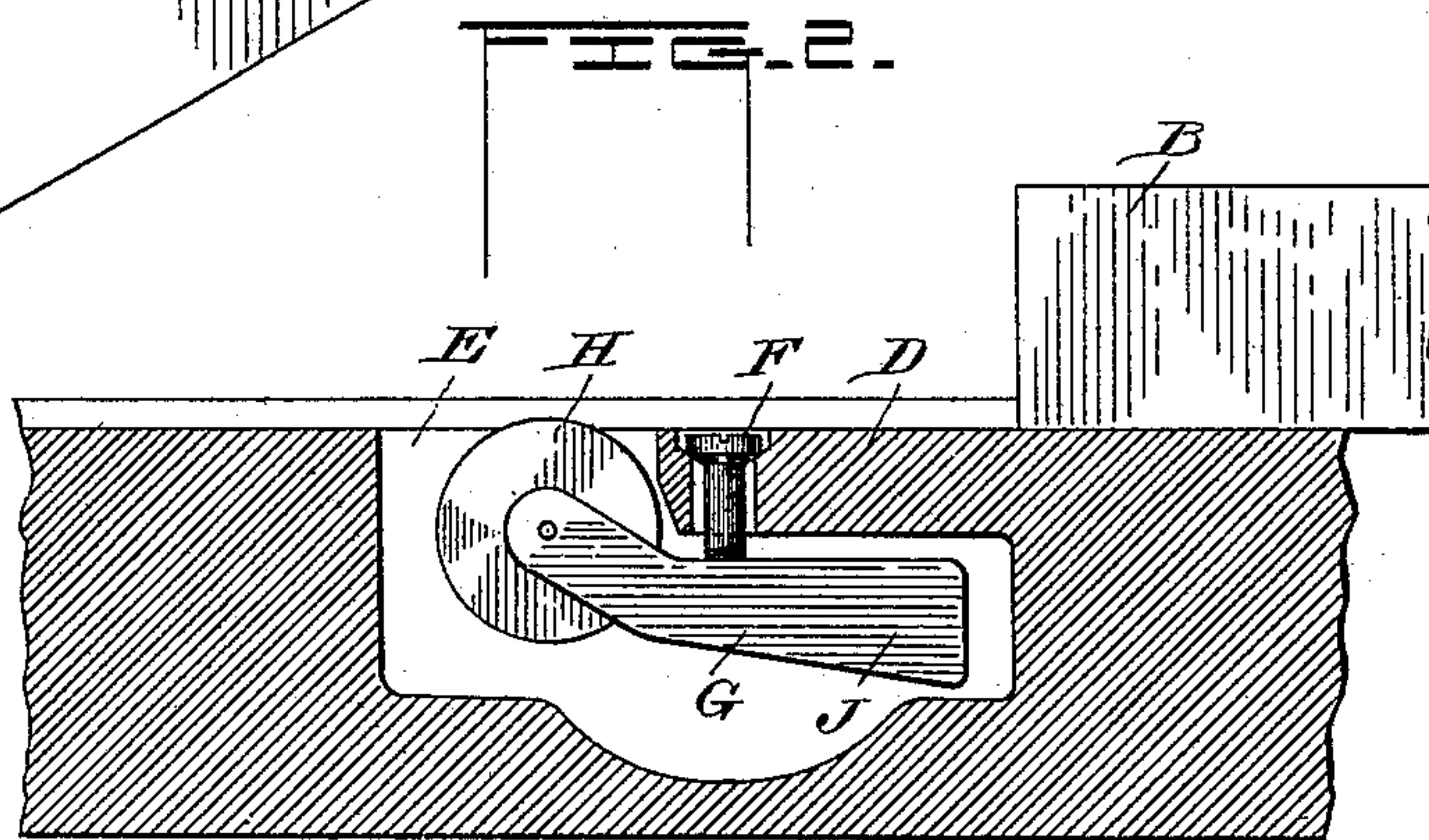
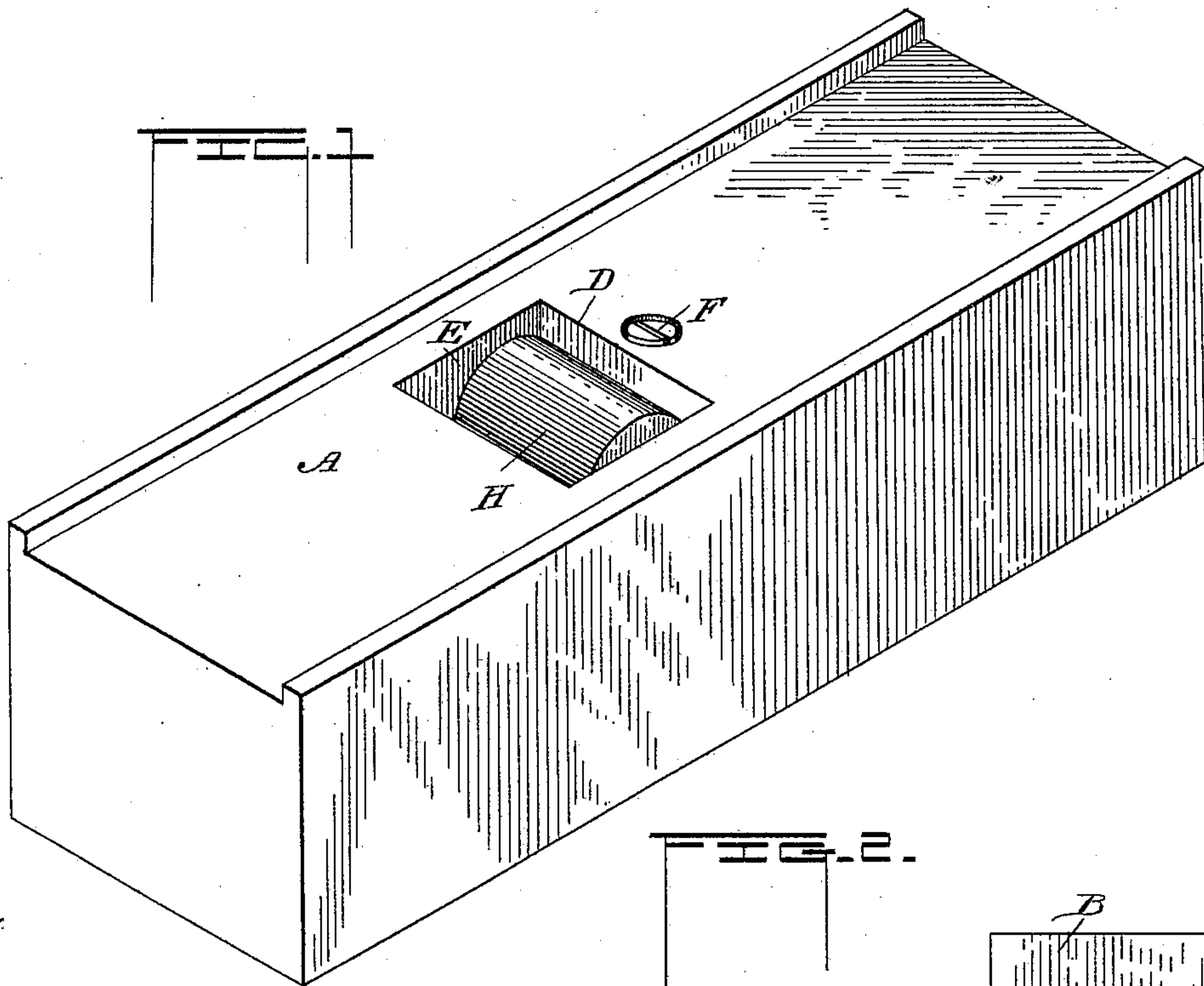


(No Model.)

G. T. REISS.
LUBRICATOR.

No. 452,318.

Patented May 12, 1891.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE T. REISS, OF HAMILTON, OHIO, ASSIGNOR TO THE NILES TOOL WORKS, OF SAME PLACE.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 452,318, dated May 12, 1891.

Application filed December 4, 1890. Serial No. 373,625. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. REISS, of Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Lubricators, (Case B,) of which the following is a specification.

This invention pertains to lubricators for bearing-surfaces, and relates particularly to improvements in that class of such lubricators which employ lubricating-rollers seated in oil-recesses.

My improvements will be readily understood from the following description, taken in connection with the accompanying drawings, which exemplify my improvements as applied to sliding surfaces, and in which—

Figure 1 is a perspective view of a slideway furnished with my improved lubricator; Fig. 2, a vertical longitudinal section of such slideway, exposing the oil-pocket and my improved lubricating device in connection therewith; and Fig. 3, a perspective view of the roller and its supporting-lever.

In the drawings, A indicates a slideway or rectilinear guide on which a moving piece is to the slideway forming a bearing; B, a piece fitted to reciprocate upon such slideway, it being the office of the lubricating device now in question to supply the sliding surfaces with lubricant; C, a deep recess or oil-pocket formed in the slideway; D, a portion of the horizontal surface of the slideway, forming a rigid roof over a portion of the recess C, this roof portion being integrally formed with the slideway; E, an opening in the horizontal surfaces of the slideway leading to the recess, and formed by such portion of the recess as is not roofed by the roof D; F, a screw projecting very loosely down through the roof D and into the recess below the roof, the under surface of the head of this screw being convex and engaging the concave bottom of the counterbore of the hole in which the screw is seated, the counterbore being of sufficient depth to permit the upper surface of the head of the screw to come below the bearing-surface of the slideway; G, a weight-lever disposed within the recess and suspended by the screw F, that end of the lever which comes at the open end of the recess being bifurcated; H, a roller horizontally journaled in the bifurcated end

of the lever; J, the heavy end of the lever opposite the bifurcated end and projecting under the roof D, the end of this heavy end of the lever resting on the floor of the recess when the upper portion of the periphery of the roller projects a trifle above the bearing-surface of the slideway.

The lever is supported by the screw and is capable of oscillation on the head of the screw as a horizontal axis when the roller is depressed by the passage of the sliding piece B over it; the periphery of the roller then bearing nicely against the under surface of the sliding piece and applying to it oil which the roller has picked up from the recess, which will be maintained partially full of oil. When the sliding piece B retreats off of the roller, then the preponderating heavy end J of the lever descends and lifts the roller again, thus always insuring that the roller will take a bearing against the sliding piece when it reaches it. The suspending-screw, forming as it does a universal joint of suspension, not only permits the lever to oscillate in the manner described, but also permits it to oscillate on the head of the screw as a horizontal axis at right angles to the axis of the roller, thus insuring the automatic adjustment of the roller into such horizontal plane independently at each end, that it will have a fair bearing its whole length upon the sliding piece B. Furthermore, the lever may oscillate upon the vertical axis of the suspending screw, so that the axis of the roller will automatically take a position at right angles to the path of motion of the sliding piece B. Removing the single suspension-screw permits of the ready withdrawal of the lever and roller for purposes of inspection, repair, or renewal, and to permit the cleaning of the recess. The construction is also an exceedingly economical one, the only machine work incident to the application of the lubricator to the slideway being the production of the hole for the suspension-screw.

In the exemplification I have shown the bearing-surface of the slideway as having a plain flat cross-section, the roller accordingly being cylindrical. Should any other cross-sectional form be chosen for the slideway, then of course the longitudinal section of the

roller will be modified accordingly, as is common in machine construction in which slideways are provided with lubricating-rollers, and so, also, will a long slideway or other bearing be provided with as many of the lubricating devices as expediency suggests.

I claim as my invention—

1. The combination, substantially as set forth, of a slideway provided with a recess, a weighted lever supported within such recess upon a universal pivot, and a roller carried by such lever and projecting out of the recess.

2. The combination, substantially as set forth, of a bearing provided with a partially-roofed recess, a weighted lever disposed within said recess and supported from the partial roof thereof by a universal pivot, and a roller carried by said lever and projecting up out of said recess.

3. The combination, substantially as set

forth, of a bearing provided with a recess having a partial roof provided with a counterbored vertical hole, a weighted lever disposed within said recess, a roller carried by said lever and projecting up out of said recess, and a suspension-screw attached to said lever and loosely engaging said counterbored hole to form a universal pivot for said lever.

4. The combination, substantially as set forth, of a bearing provided with a recess, a weighted lever supported within said recess upon a universal pivot and having its preponderating end supported by contact with the floor of the recess, and a roller carried by said lever and projecting its periphery up out of said recess when the heavy end of the lever is thus supported.

GEO. T. REISS.

Witnesses:

J. W. SEE,

JAS. FITTON.