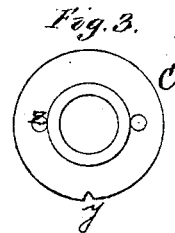
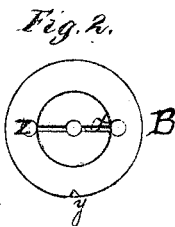
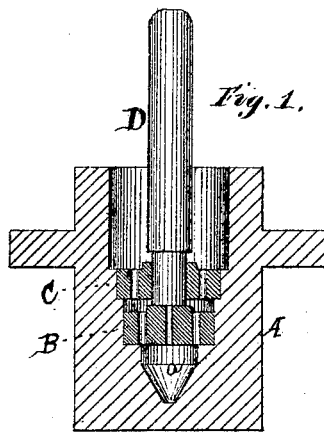


LEWIS MAISH

Improvement in Spindle-Step Boxes.

No. 114,455.

Patented May 2, 1871.



Witnesses
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UNITED STATES PATENT OFFICE

LEWIS MAISH, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN SPINDLE-STEP BOXES.

Specification forming part of Letters Patent No. 114,455, dated May 2, 1871.

To all whom it may concern :

Be it known that I, LEWIS MAISH, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Step-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a central vertical section of my improved step-box. Fig. 2 is a plan or top view of the plate; and Fig. 3 is a plan of the ring.

The object of my invention is to prevent the heating and welding of the parts which come in frictional contact, as well as to prevent the same from cutting and wearing rough; and my invention consists in the novel construction and arrangement of parts whereby my object is more fully attained than by any method now known to me, and which will hereafter be fully described.

A in the drawing represents the box which incloses and supports all of the other parts, and is provided with the chamber or recess *a* in the bottom thereof, into which grit or cuttings will work by gravitation or pressure, and may fall through the perforations *z z* or notches *y y* in the ring and plate. B represents the plate upon which the ring and spindle rest, and is made with a notch, *x*, across its upper face, which is raised in the center, and the perforations *z z*, as shown. The notch will catch all fine, solid, or grinding dust or substances which may by chance get into the bearing or box, and the same will fall or be

forced through the perforations or notches into the chamber *a*. The ring C is made substantially in the form shown, and provided with perforations or notches, or both, as may be desired.

It will be observed that the oil for lubrication will pass down through the perforations in the ring and plate and surround the lower end of the spindle, and will pass up through the central perforation in the plate, and thereby lubricate the spindle at the bottom thereof.

The simplicity and advantage of this device are so obvious that further description is superfluous.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The plate B, when provided with the notches and perforations, as and for the purpose set forth.
2. The combination of the plate B, constructed as shown, with the reservoir or chamber *a*, as set forth.
3. The combination herein described of the perforated ring C, plate B, and box or body A, the parts being constructed as specified.
4. The combination of parts herein described, whereby the spindle or shaft is lubricated around and at the bottom thereof, as specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

LEWIS MAISH.

Witnesses:

L. M. STEWART,
I. T. R. SIDLE.