

E. Conners,

Spindle.

No. 104,115.

Patented June 14, 1870.

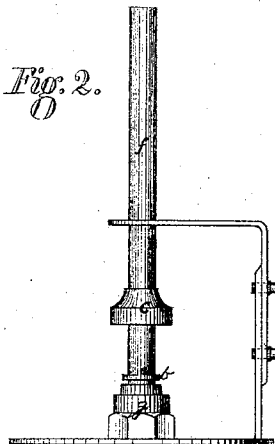
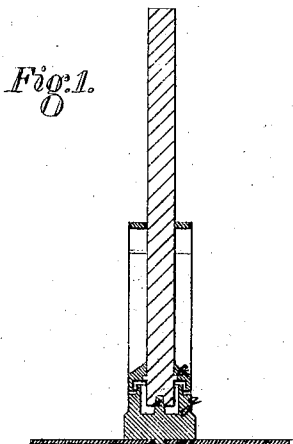


Fig. 3.



Fig. 4.



Witnesses
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EUGENE CONVERS, OF OSWEGO, NEW YORK.

Letters Patent No. 104,115, dated June 14, 1870.

IMPROVEMENT IN OIL-CUPS AND BEARINGS FOR SPINDLES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, EUGENE CONVERS, of Oswego, New York, have invented new and useful Improvements in the Construction of Shafts or Spindles and Steps therefor; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference thereon, making part of this specification.

In the drawings—

Figure 1 is a vertical section of the shaft and step.

Figure 2 is a side view.

Figure 3 is an inside view of the cap.

Figure 4 shows the collar, with the lugs thereon, by which the cap is held in position.

The object of my invention is to provide means for lubricating the gudgeon of the shaft, so as, at the same time, to exclude dust and organic matter from the oil-box, and prevent heating and wear, while economizing the lubricating material.

It consists of the parts and combinations hereinafter described.

Instead of making the shaft with a pointed end, as customary, I drill a hole in the end, and in the oil-box or step make a pivot on which the shaft may revolve. The oil-box being larger than the end of the shaft, there is no friction.

Near the end of the shaft, at a point corresponding with the top of the oil-box, I place a collar to support the protecting cap. This collar has projections or lugs to fit corresponding notches in the inside of the cap, so as to hold the cap in place, and cause it to revolve with the shaft. The cap is fitted closely to the collar, but freely upon the oil-box, so as to prevent friction. It is also movable upon the shaft, facilitating the examination and cleaning or oiling of the pivot ends.

The hole in the end of the shaft and pivot upon which it revolves are shown at *a*, fig. 1.

The collar on the shaft is shown at *b*, fig. 2, and also detached in fig. 4.

The lugs or projections are indicated at *e*, figs. 2 and 4.

The cap, moved up on the shaft, is shown at *c*, fig. 2, and an inside view is presented in fig. 3. A sectional view is also presented at *c*, fig. 1.

By means of this method of constructing shafts or spindles, dust and foreign matter are excluded from the pivot end. The cap, revolving with the shaft, acts as a fan to throw off dirt from the outside. As now constructed, oil-boxes are left open and exposed, forming ready receptacles for all the dust and dirt created around them. The entrance of this dirt is by my method entirely prevented, and the consequent heating and wear of the pivot end prevented.

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

1. The combination of the movable cap and collar *b c*, fig. 2, constructed substantially as described and for the purposes set forth.

2. The shaft, with hole in the end, and corresponding pivot fixed in the oil-box or step *a*, fig. 1, as described, and for the purposes set forth.

3. The combination of sliding cap *c*, the spindle *f*, having a collar *b*, with lugs *e*, and the oil-cup *g*, the cap revolving with the spindle, and not in contact with the oil-cup, in the manner and for the purposes substantially as shown and described.

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

Witnesses:

JOHN B. MOTLEY,
EDM. F. BROWN.

E. CONVERS.