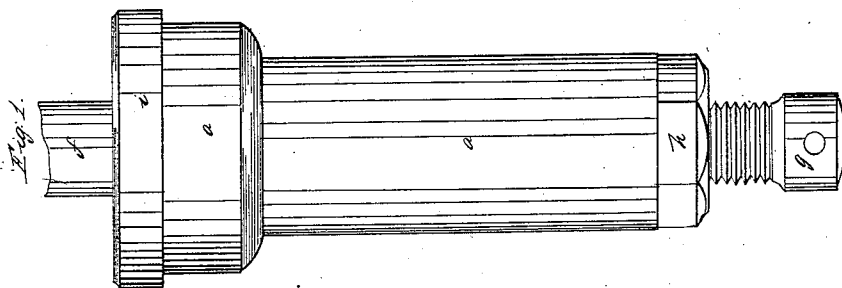
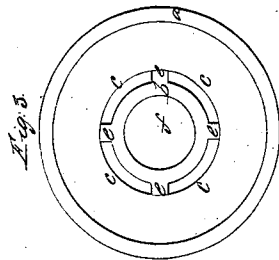
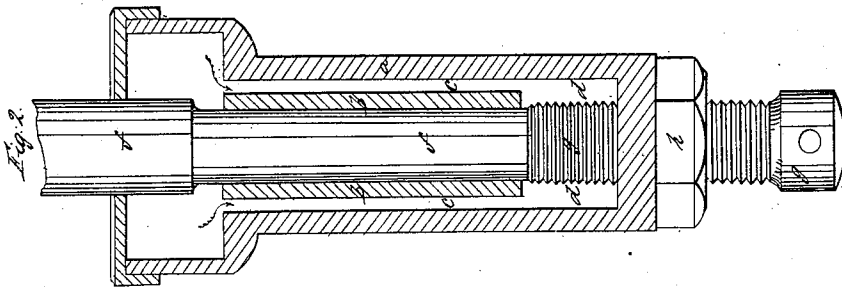


C. R. TOMPKINS.
STEP FOR UPRIGHT SHAFTS.

No. 64,724.

Patented May 14, 1867.



Witnesses:

Geo. Fraunberger
C. P. Landly

Inventor:

Chas R. Tompkins

United States Patent Office.

CHARLES R. TOMPKINS, OF ROCHESTER, NEW YORK.

Letters Patent No. 64,724, dated May 14, 1867.

IMPROVEMENT IN STEPS FOR UPRIGHT SHAFTS.

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, CHARLES R. TOMPKINS, of the city of Rochester, in the county of Monroe, and State of New York, have invented a new and useful Improvement in Constructing Steps for Upright Shafts; 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, in which—

Figure 1 is an outside view.

Figure 2, inside view; and

Figure 3 is a top view with the cover off.

The nature of my invention consists in making the outside shell *a* of the step (figs. 1 and 2) of iron, or any other suitable metal, of any convenient size. The shell *a* is bored out to receive the inside sleeve *b*, as shown in figs. 2 and 3, and hereafter to be described. The shell *a* is also provided with a cover, *i*, of same material, and closely fitted to the shell *a* and shaft *f*, but can easily be removed for the purpose of filling the step with clean oil. The sleeve *b*, in which the shaft *f* revolves, may be made of brass, or other suitable metal, and is provided with more or less suitable projections *c c c c*, and closely fitted in the shell *a*, so as to leave open spaces, *c c c c*, as shown in figs. 2 and 3, for the purpose of allowing the oil to pass down between the outside shell *a* and the inside sleeve *b*. When the upright shaft runs at a high speed, the oil is carried up between the shaft and sleeve *b* until it comes to the top of the sleeve *b*, when it is released and flows back to the oil-chamber *d d* below through the open spaces *c c c c*, when it again comes in contact with the shaft *f*, and continues to do so as long as the shaft is in motion, thus securing a great saving in oil. The open space *d d*, below sleeve *b*, in fig. 2, is to allow whatever sediment the oil may contain to settle therein, while the end of the shaft *f* constantly runs in clean oil. The shaft *f* is supported by a steel screw, *g*, and revolves upon it. All the sediment can easily be removed before filling the step with clean oil by taking out the steel screw *g*. There is connected with the screw *g* a knot, *h*, with a leather packing, for the purpose of tightening the steel screw *g*.

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

The inside sleeve *b*, with its projections, and the oil-chamber *d d*, in connection with steel screw *g*, substantially as described.

CHAS. R. TOMPKINS.

Witnesses:

GEO. FRAUENBERGER;

C. T. LEADLEY.