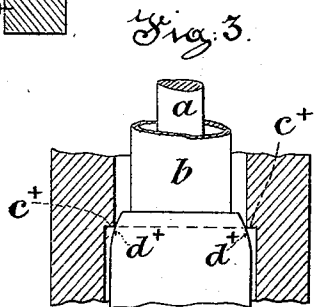
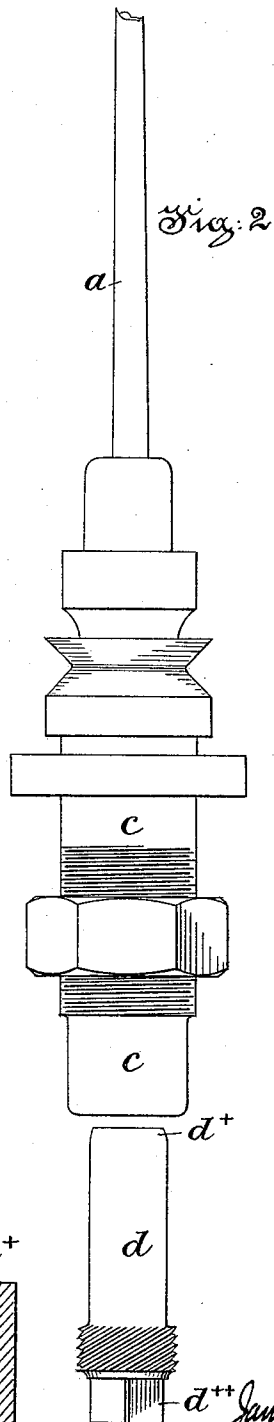
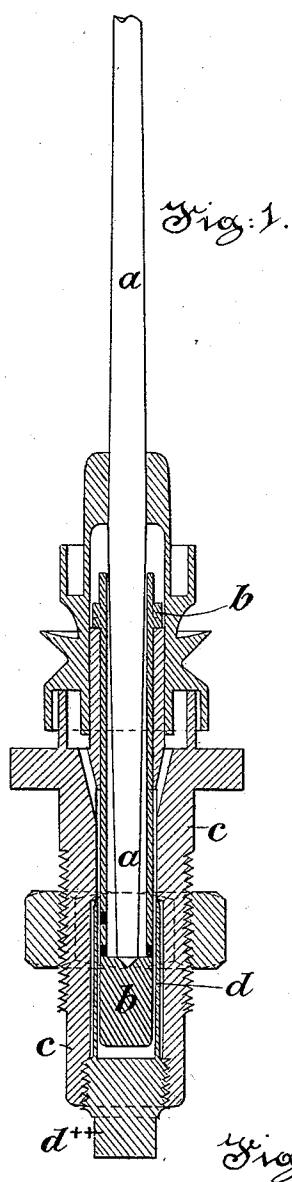


(No Model.)

J. BODDEN.
SELF CONTAINED SPINDLE.

No. 551,944.

Patented Dec. 24, 1895.



Witnesses.
Edith J. Griswold
M. L. Eldon.

Inventor.
James Bodden
By his attorneys
Howson and Howson

UNITED STATES PATENT OFFICE.

JAMES BODDEN, OF OLDHAM, ENGLAND, ASSIGNOR TO WILLIAM BODDEN,
OF SAME PLACE.

SELF-CONTAINED SPINDLE.

SPECIFICATION forming part of Letters Patent No. 551,944, dated December 24, 1895.

Application filed August 7, 1895. Serial No. 558,522. (No model.)

To all whom it may concern:

Be it known that I, JAMES BODDEN, a subject of the Queen of Great Britain and Ireland, residing at Oldham, in the county of Lancaster, England, have invented improvements applicable to the lubrication of what are known as "self-contained" spindles used in ring-and-traveler and other spinning and doubling frames, of which the following is a specification.

This invention relates to an improved device for lubricating what are known as "self-contained" spindles used in "ring-and-traveler" and other spinning and doubling frames, and also flier throstle-spindles of the same type. In these frames it is customary to clean and oil the spindles by first pumping out the old oil and sediment, and then applying fresh oil, during which operation it is necessary to stop the revolution of the spindles and to lift them out of their sockets or bolsters. This invention is for the purpose of cleaning and oiling this class of spindle without having either to stop the spindle or to pump the old oil out.

The nature of my said invention and the manner in which the same is to be carried into practical effect will be readily understood on reference to the sheet of drawings hereunto annexed, and the following explanation thereof.

Figure 1 on the drawings is a vertical section of a self-contained ring-frame spindle with my improved lubricating device shown as applied thereto, and Fig. 2 is an elevation of the same with the improved lubricating device shown as detached. Fig. 3 is an enlarged view of a detached portion of the same, hereinafter more particularly referred to.

a is the spindle, *b* the bolster, and *c* the fixed bolster-case.

For the purposes of my invention I bore up the shank of the bolster-case *c* from beneath,

as shown at Fig. 1, in order to insert therein a lubricating tube or cup *d* containing oil, this tube or cup *d* having its upper end formed slightly conical or rounded, as seen at *d*⁺ on the enlarged view, Fig. 3, and screwed against a shoulder *c*⁺ formed in the bore of the bolster-case *c* for that purpose, such shoulder being preferably left square and sharp so that the upper end of the bolster-case beds against it and so makes a tight joint for itself, or the shoulder may be slightly coned to fit the upper end of the tube. For facility of quick application and fixing of this tube or oil-cup *d* in its place and easy and rapid removal therefrom I provide the same with a multiple-threaded screw (see Fig. 2) of any suitable pitch and number of threads, and I chase the inside of the bore of the shank of the bolster-case with a corresponding multiple thread, so that only a portion of a turn of the tube or oil-cup *d* is necessary to detach or attach the same. The lower end of the oil tube or cup at *d*⁺⁺ is squared or otherwise prepared to receive a key or similar instrument for fixing or unfixing the same.

I claim as my invention—

The combination with a spindle, of an internal tube or oil cup inserted in the bolster case and having a taper or conical end to increase frictional contact and to make an oil tight joint, the exterior of such tube being provided with a multiple threaded screw and the interior of the bore of the bolster case being also chased with a similar multiple-threaded screw, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES BODDEN.

Witnesses:

CHARLES A. DAVIES,
J. E. HUGHES.