

N. F. Clark
Spinning Mach. Bolster.
N^o 79,899. Patented Jul. 14, 1868.

Fig 1.

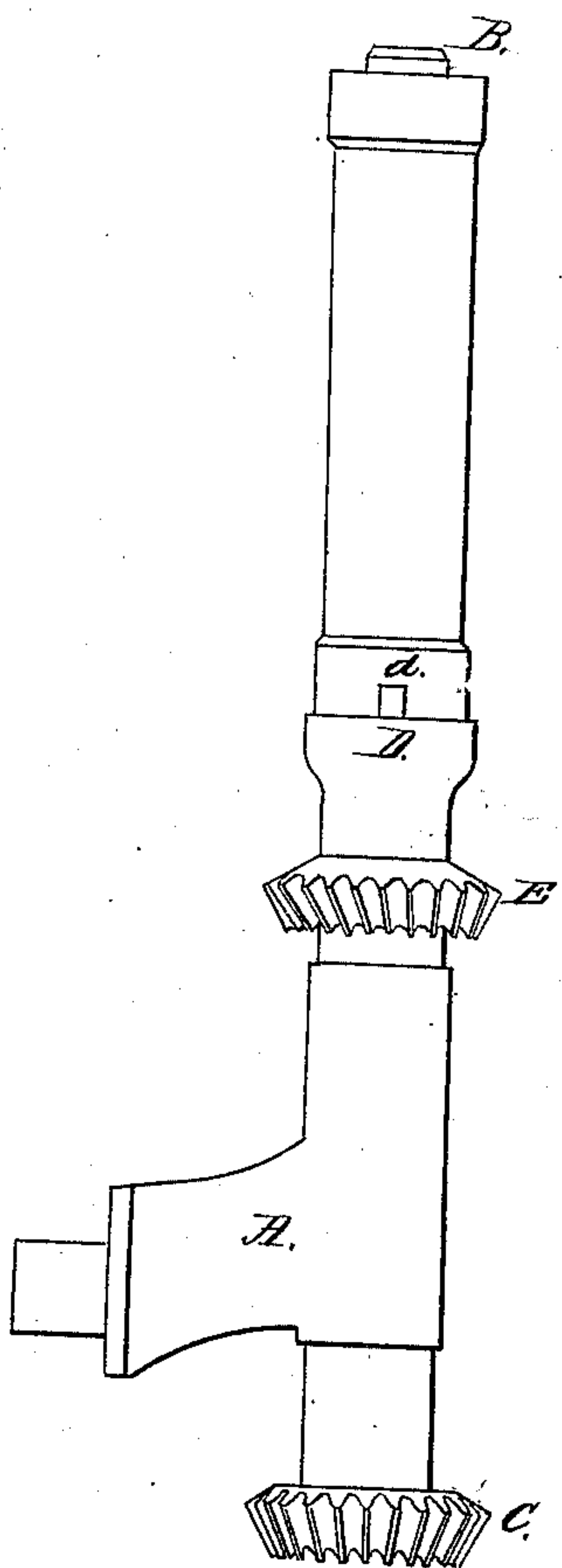
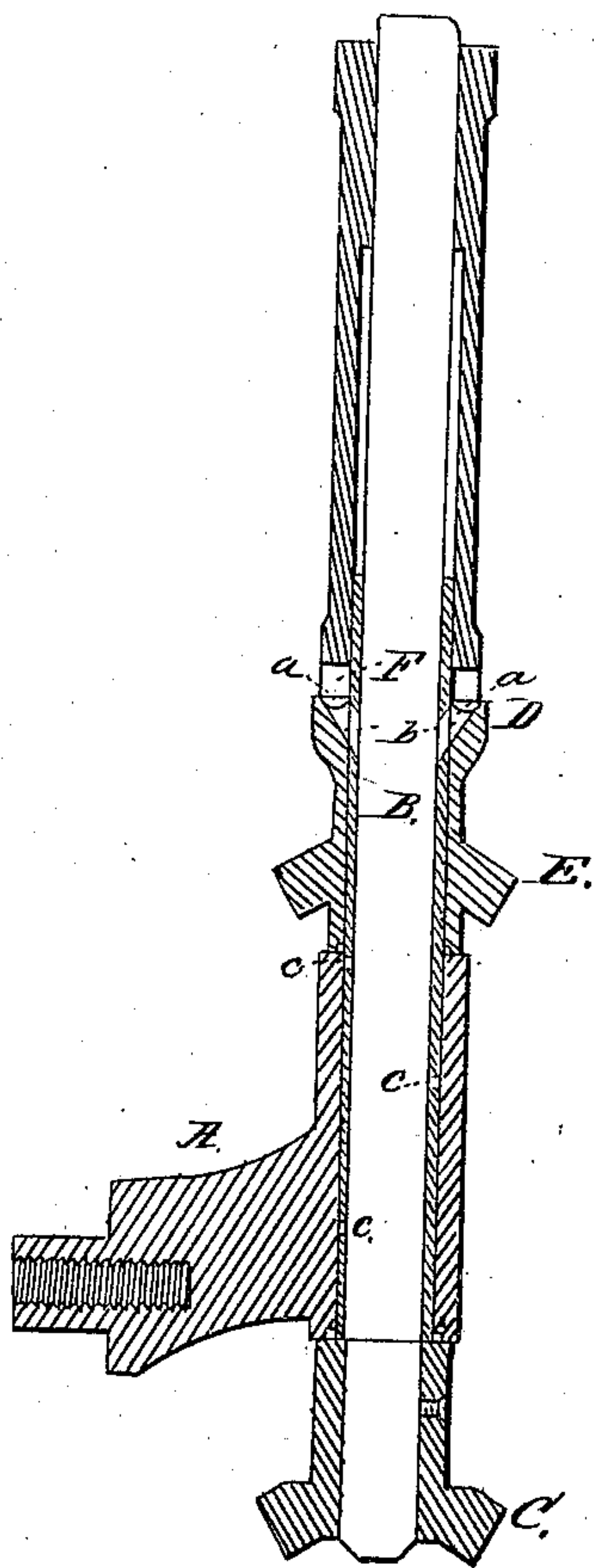


Fig 2.



Witnesses
S. N. Piper.
J. R. Snow

Inventor
Nathan F. Clark
by his attorney,
R. H. Eddy

United States Patent Office.

NATHAN F. CLARK, OF LAWRENCE, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND GEORGE H. COOK, OF SAME PLACE.

Letters Patent No. 79,899, dated July 14, 1868.

IMPROVEMENT IN MACHINE FOR MAKING ROVING.

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

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, NATHAN F. CLARK, of Lawrence, in the county of Essex, and State of Massachusetts, have invented a new and useful Improvement in Machinery for Making Roving; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation of a roving-frame, bolster, spindle, and bobbin-gear or driver, with my improvement applied thereto.

Figure 2 is a vertical section thereof.

In such drawings, A denotes a bolster or spindle-support, and B the spindle, extending through such bolster. C is the driving-gear of the spindle, and E the bobbin-driving gear, the latter being arranged on the top of the bolster and provided with a projection, D, to sustain the bobbin. The spindle extends through the gear E and its projection D.

In carrying out my invention, I make use of an anti-friction tube, F, of brass, or other suitable metal. This tube encompasses the spindle B, and extends through the bolster, the gear E, and its part D, and rises above the latter about one inch, so as to enter and give support to a bobbin when placed on the spindle and the top of the part D. The said tube F, I attach to the gear E, so as to revolve with and be revolved by it.

Furthermore, from a concavity, *a*, made in the top of the part D, I lead a passage, *b*, laterally through one side of the tube F, and in that part of the tube which is within the bolster I form one or more holes, *c*. The stud to enter the base of the bobbin is shown at *d*.

When oil is poured into the concavity *a*, it will run through the passage *b*, and thence into the tube F, and will lubricate the inner surface of such tube and the next adjacent surface of the spindle. Thence the oil will flow through the holes *c* to the outer surface of the tube F, and will lubricate that and the inner surface of the bolster.

Thus, while the tube F serves to support the bobbin-gear E on and by means of the bolster, it also answers as a bearing for the spindle, and to give support to the bobbin, and prevent the latter from being worn by the spindle.

In practice, the bobbin and spindle-gears are revolved in the same direction, the spindle being made to revolve a little faster than the bobbin.

Whenever a tube, F, may become too much worn, it may be easily removed from the bobbin-gear and another tube may be substituted. By means of the tube F and the oil-passages thereof, the lubrication of the spindle and bolster may be easily effected.

I therefore claim the combination and arrangement of the tube F and bobbin-rest D, constructed as described, with the bolster A, the tube F, having the oil-passages *b* and *c*, for conveying the oil to the surface of the spindle and to the interior of the bolster, substantially as and for the purpose set forth.

NATHAN F. CLARK.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.