E. N. STEERE.

DEVICE FOR SUPPLYING OIL TO SPINDLE BEARINGS.

No. 30,937. Patented Dec. 18, 1860.

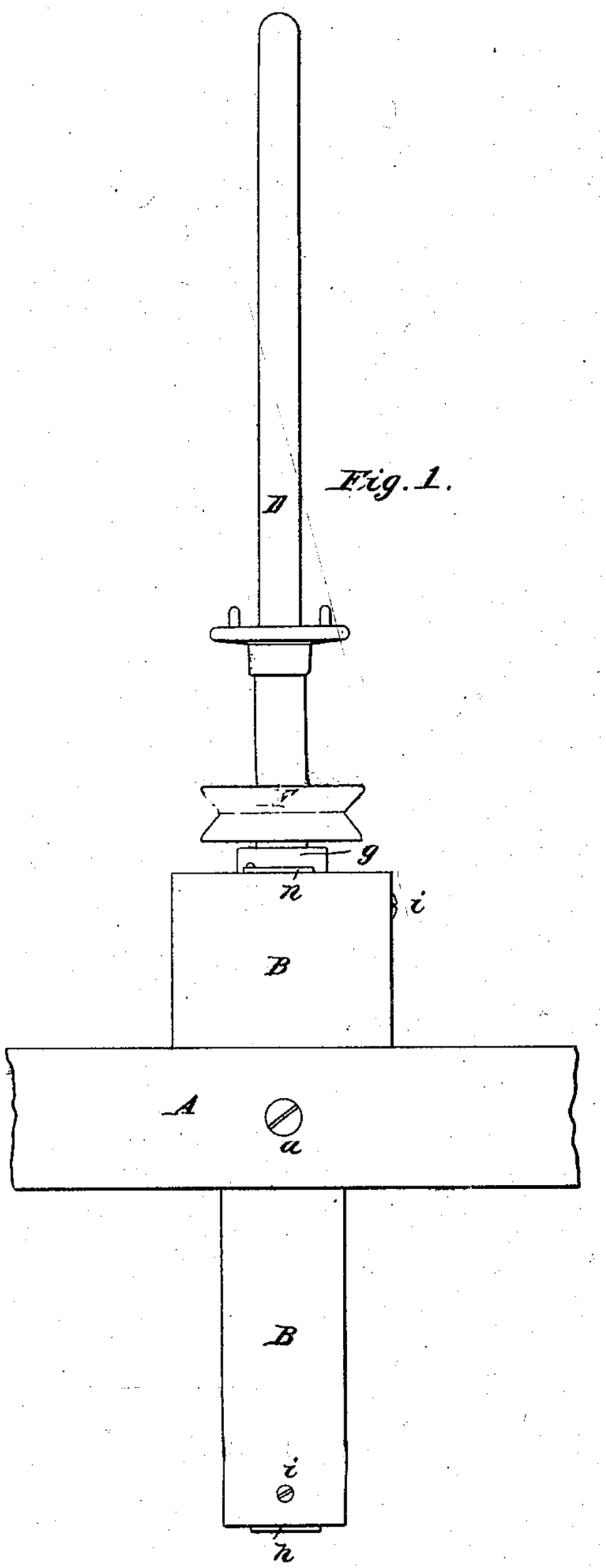

Fig. 1.

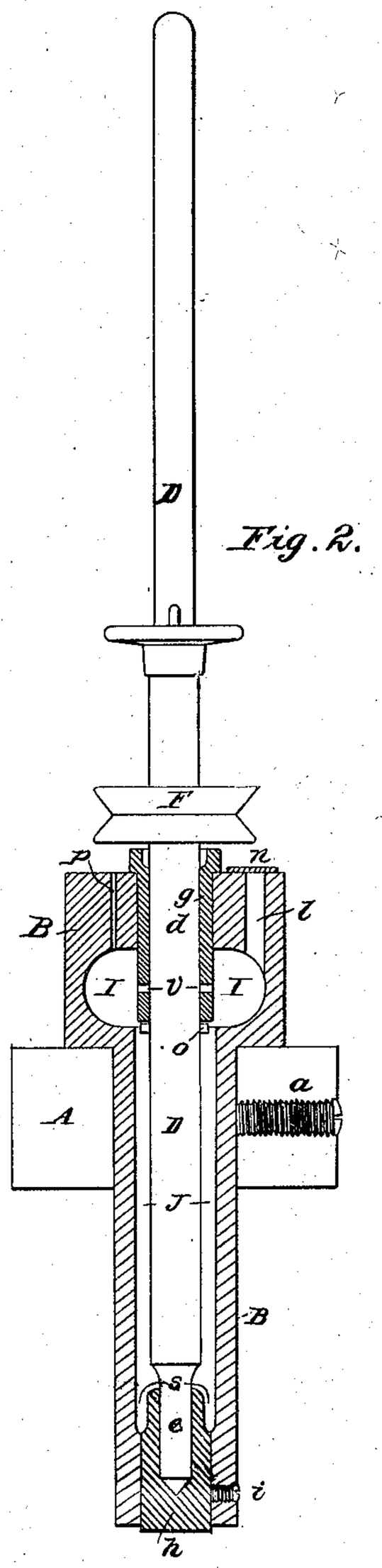

Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

ERASTUS N. STEERE, OF PROVIDENCE, RHODE ISLAND.

OILING SPINDLES.

Specification of Letters Patent No. 30,937, dated December 18, 1860.

To all whom it may concern:

Be it known that I, ERASTUS N. STEERE, of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Device for Supplying Oil to the Bearings of Spindles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation of a spindle arranged with my device. Fig. 2 is a side elevation and transverse section of the same.

Similar letters refer to like parts in both figures.

My invention consists in connecting the step and bolster of a spindle by means of a tube, so as to form a reservoir or chamber for containing oil, and in which the lower part of the spindle is inclosed and revolves submerged in oil, whereby a plentiful supply without waste is afforded at all times, and all dust and injurious matter is excluded from the bearings.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the drawing, A is the rail of a spinning frame, and B, is a tube of cast iron inserted therein, and secured by a set screw *a*. The shoulder formed by the larger diameter of the upper part supports the weight of the tube and its spindle in the rail as shown. In the upper end of the tube is inserted the bolster *g*, and in the lower end is inserted the step *h*. Said bolster and step are generally of brass or bronze metal, and are held in place by set screws *i*, *i*.

D, is the spindle having a bearing in the bolster at *d*, Fig. 2, and in the step at *e*.

F, is a whir or small band wheel upon the spindle above the bolster, by means of which the spindle is revolved.

In the upper part of the tube B, is formed an annular chamber I, which opens into the cylindrical chamber J, in the lower part of the said tube, the latter chamber having a space of about $\frac{1}{8}$ of an inch around the spindle, which is filled with oil. At the bottom of this chamber, and around the step is formed a receptacle *s*, for grit, or any deposits from the oil.

Two passages open into the annular chamber from the top of the tube, one *l*, for introducing oil to the tube, which is covered or stopped by a swinging cap *n*, or by a plug. The other passage *p*, admits air to the tube.

Two openings *v*, *v*, are formed upon opposite sides of the bolster, through which the oil flows from the annular chamber to the spindle bearing. A pin *o*, is put through the spindle beneath the bolster to prevent it (the spindle) from rising.

The tube being constructed as described is filled through the opening *l*, nearly to the top of the chamber I, and by the whirl of the spindle the oil is constantly agitated and made to flow through and around the bearings, in a manner to present new oil constantly to said bearings, and to deposit the sediment in the receptacle around the step.

Having thus described my improved device, what I claim and desire to secure by Letters Patent is—

The tube B, or its equivalent, constructed, and arranged with the step and bolster of a spindle substantially as herein described for the purpose specified.

ERASTUS N. STEERE.

Witnesses:

ISAAC A. BROWNELL,

H. P. TILLINGHAST.