

# C. E. Brown.

## Spindle for Spinning Mach.

N<sup>o</sup> 22,262.

Patented Dec. 7, 1858.

Fig. 1.

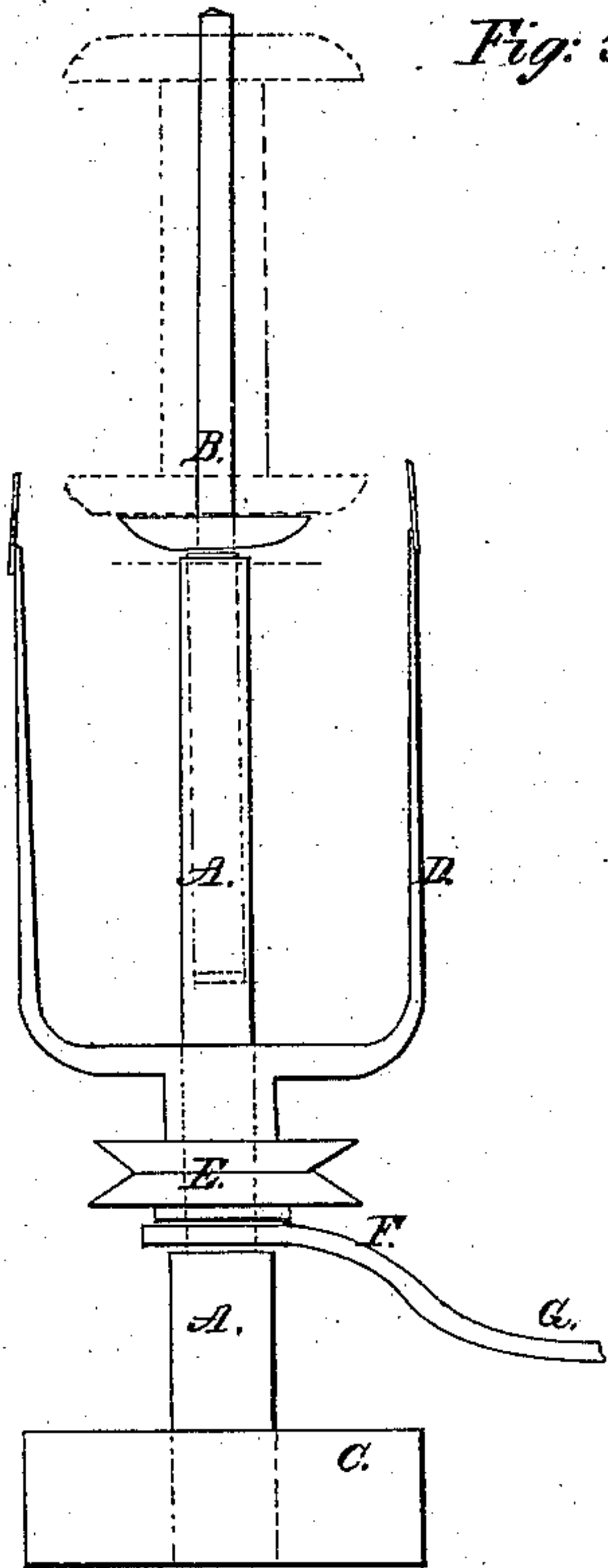


Fig. 3.

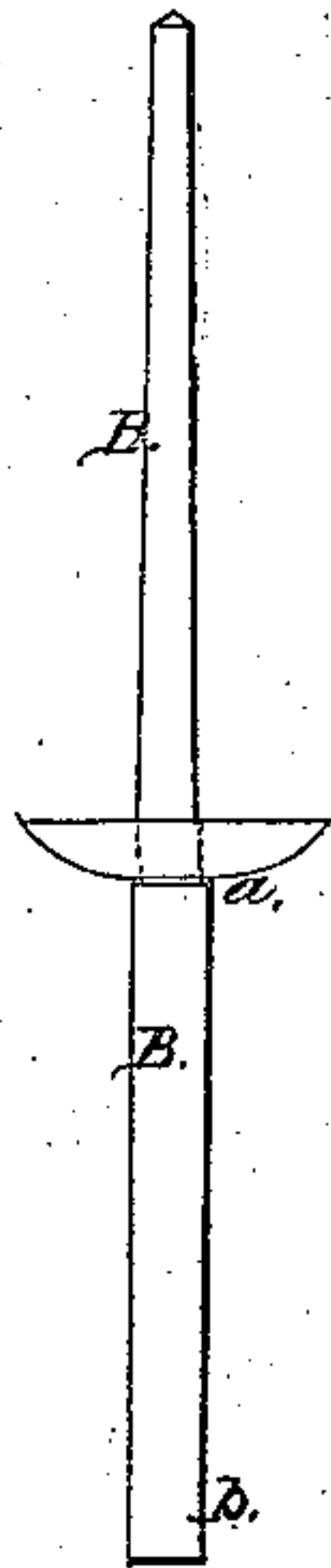


Fig. 4.

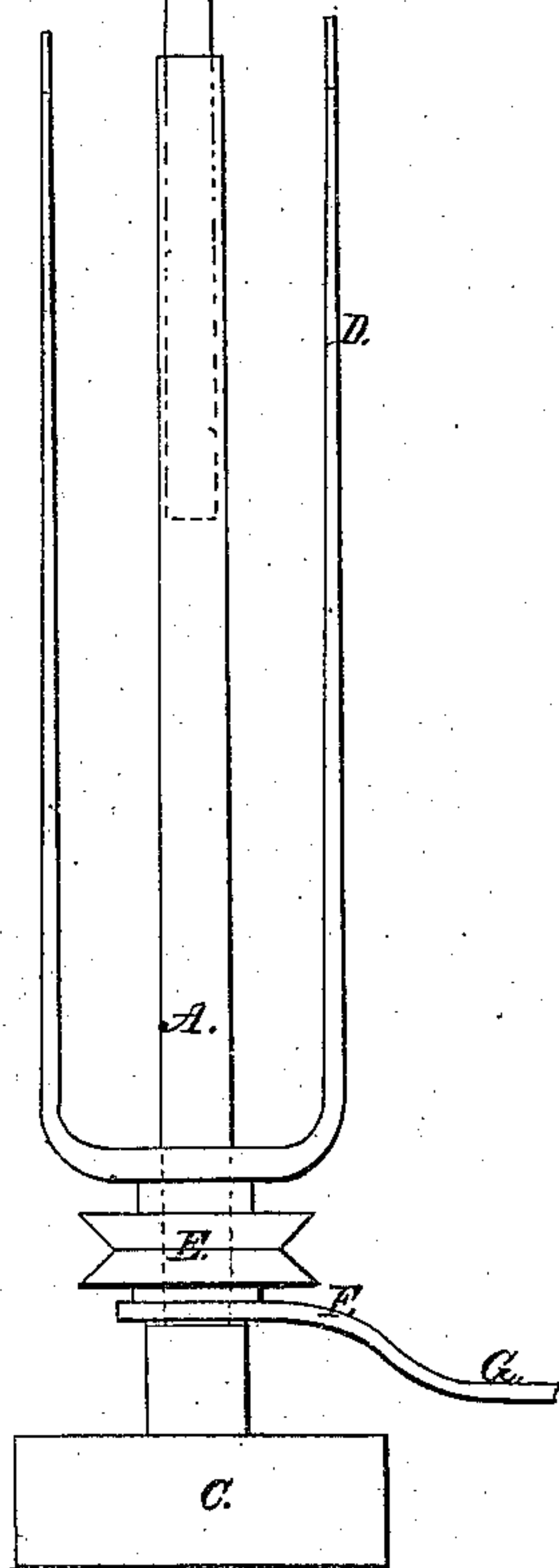


Fig. 2.

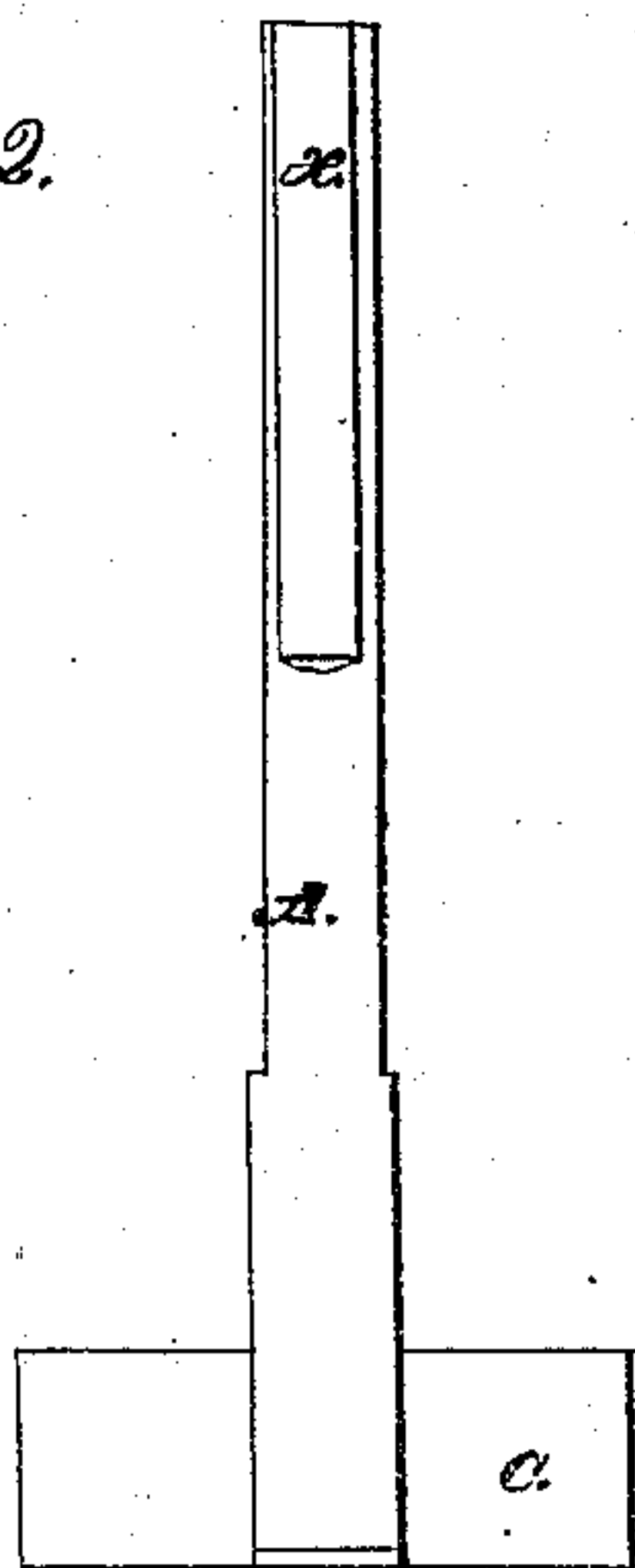
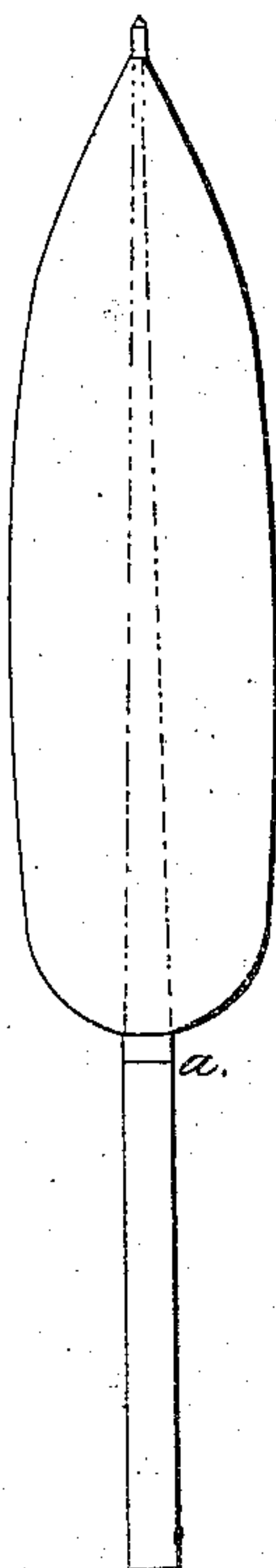


Fig. 5.



# UNITED STATES PATENT OFFICE.

CYRIEL E. BROWN, OF MILLBURY, MASSACHUSETTS, ASSIGNOR TO HIMSELF, JNO. TENNEY,  
AND JNO. RHODES, OF SAME PLACE.

## SPINDLE FOR THROSTLE-SPINNING.

Specification of Letters Patent No. 22,262, dated December 7, 1858.

*To all whom it may concern:*

Be it known that I, CYRIEL E. BROWN, of Millbury, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Spinning; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, due reference being had to the accompanying drawings, in which—

Figure 1 shows a view of the arrangement and construction of the spindle, flier and adjacent parts. Fig. 2 shows a section of the stationary spindle with its socket; Fig. 3 the movable spindle. Fig. 4 shows a variation adapted to cop spinning; Fig. 5 the cop and spindle ready to be placed in the shuttle.

In constructing my improvements make a spindle A, Fig. 2, with a socket X in its end to receive and sustain the movable spindle B, Fig. 3. The spindle A fasten into the rail C and on it fit the flier D with its whir E. The flier D I reverse or place in the position shown in Figs. 1 and 4. Below the whir place a loose collar F and below it the strap or slip G, which sustains the whir and flier and secures them to the frame or rail, which is made stationary, and the traverse motion, or rise and fall to fill the bobbin or make a cop is given to the rail C with its spindle or vice versa the motion given to the slip G and the rail C be stationary. The former however I consider preferable. The ends of the fliers are made with hooks or loops to retain and guide the yarn to the bobbin or cop. The movable spindle B is made with its lower end or part from *a* to *b* fitting in the socket in A and its upper part to receive the bobbin or cop, and when used with a cop may be removed with it as in Fig. 5 and be placed in the shuttle to use the yarn or filling from, and thus prevent the loss of waste. The other parts necessary to make a spinning frame or machine may be of most any of the common forms, as what little variations may be deemed advisable will suggest themselves at once to the maker, therefore a more particular description of them is not deemed necessary to be given here.

In operation the flier receives motion by

a belt on the whir and the yarn is brought from the guide or roll over the spindle to the flier and passing through its loop thence to the loose spindle or bobbin placed thereon, the action of which in its socket causing or giving the draft and the traverse motion being given to the spindle A the yarn has a constant strain or whip or distance from the flier to the guide or roll above this with the facility of piecing and doffing either singly or otherwise and the adaptation to the different numbers of yarn without change, as even for the coarser hard yarn for satin warps or for similar purposes where a hard twist is necessary, another turn at the loop of the flier is sufficient to produce the desired effect, and the convenience of the movable spindle to be used in the shuttle or spooler or other machines saving much waste and the keeping the spindle A well oiled by the motion of the flier up and down it and the socket retaining the oil around the loose spindle, are some of the principal advantages of my improvements though the main one is the increase of the amount spun with the same power and help.

It is evident that other variations than those shown in the drawings may be made and will suggest themselves in adapting or applying it to different kinds of work or machines.

I am aware that various forms of fliers and spindles have been used and do not claim them of themselves as heretofore used but only in the combination, arrangement and use of them as hereinbefore described. But

What I claim as new and desire to secure by Letters Patent is—

The combination and arrangement of the stationary socket spindle, the loose spindle, and the reversed flier and whir, when constructed and operating in the manner and for the purposes as above set forth and described.

In witness whereof I have hereunto set my hand this eighth day of Oct. 1858 in the presence of two witnesses.

CYRIEL E. BROWN.

Witnesses:

SAML. A. ARNOLD,  
JAS. G. ARNOLD.