

A. S. Walcott.
Spinning.

N^o 4,683.

Patented Aug. 8, 1846.

Fig: 7.

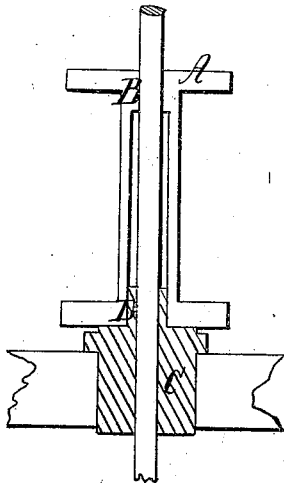


Fig: 8.

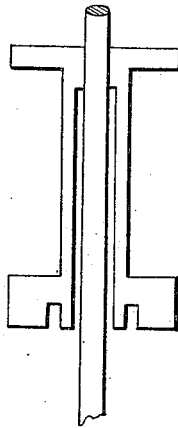


Fig: 9.

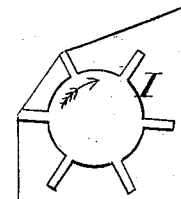
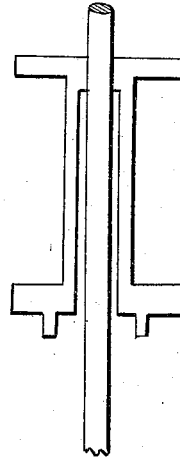


Fig: 12.

Fig: 10.

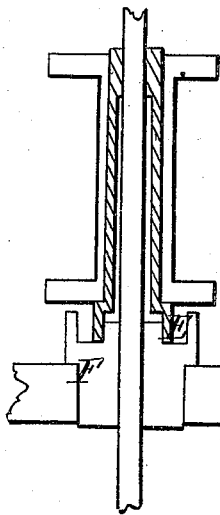
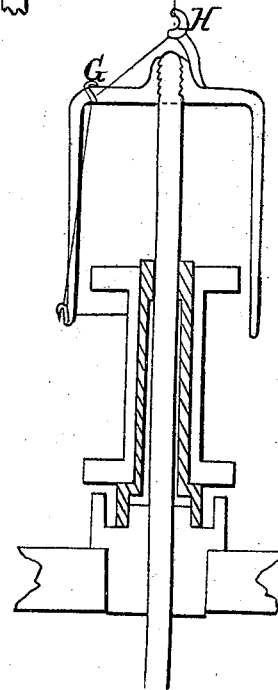
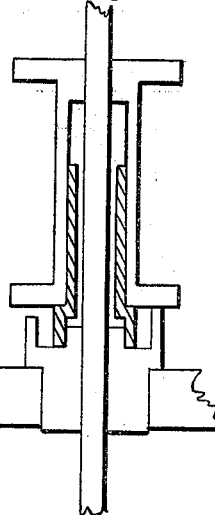


Fig: 11.



UNITED STATES PATENT OFFICE.

GEO. E. WARING AND RICHARD E. PETERSON, ADMINISTRATORS OF ALEX. S. WOLCOTT,
DECEASED, AND JOHN JOHNSON, OF NEW YORK, N. Y.

MACHINERY FOR SPINNING.

Specification of Letters Patent No. 4,683, dated August 8, 1846.

To all whom it may concern:

Be it known that ALEXANDER SIMON WOLCOTT, deceased, and JOHN JOHNSON, of the city, county, and State of New York, did
5 invent new Improvements in Spinning Cotton, Wool, and other Fibrous Substances; and it is hereby declared that the following is a full, clear, and exact description of the construction, operation, and effect of the
10 same, reference being had to the annexed drawings, making part of this specification.

The ALEXANDER SIMON WOLCOTT represented herein is the same to whom Letters Patent was granted in England (Kingdom
15 of Great Britain) in June 18th, 1844, six months for enrollment, and of which it is well known and admitted that JOHN JOHNSON the party to this patent is joint inventor.

The forming the bobbin, or tube carrying the bobbin, so that it shall only touch the spindle at its (the tube or bobbin's) upper end, the lower end being supported as described. A Figure 7, is a bobbin (without a tube to carry it) formed so that it only
25 touches the spindle at the part B, the lower part of the bobbin rests on the collar or bolster C, which is fastened into the rail from the top of the collar C, a short tube D, enters the lower part of the bobbin, which
30 is made of a corresponding size, thus the bobbin is supported laterally at the top of the spindle, and at the bottom by the tube D. It is evident that a lateral support to the bobbin can be obtained by turning into
35 the lower part of the bobbin, a concentric groove at any distance from the center of the bobbin as at Fig. 8, and having a corresponding tube rising from the collar, and that the bearing of the tube may be either
40 against the inner or outer side of the groove, and it is also evident that instead of turning a groove into the bobbin, a tubular projection may be formed on it as at Fig. 9, which can run into a corresponding groove
45 formed into the collar, or bolster beneath but all these changes would still have the same character of a lateral support to the bobbin by the stationary body beneath. Fig. 10 represents the bobbin carried by a tube.
50 E is the tube which bears against the spindle at its (the tube's) upper part, the lower part runs in the groove, turned in the top of the collar or bolster F. This groove is made much larger than what would be merely necessary
55 for the tube E to run in, for the purpose of

holding a supply of oil. The bobbin itself may form the upper bearing against the spindle and the tube not pass quite through the bobbin as at Fig. 11. The same remarks that were made respecting the changes of
60 form that might be made in the lower part of the bobbin may be applied to the tube E in its connection with the collar or bolster beneath. The form that we consider best is that represented at Fig. 10. When very
65 fine numbers are to be spun we would recommend an eye G Fig. 12 to be placed just at the bend of the flyer and another H, directly over the center of the spindle, and in case the thread cannot pass directly from
70 the rollers to the spindle, instead of passing it over the thread board, it should be passed over a roller I, which roller I, is made to revolve in the direction of the arrow, and
75 six to ten times as fast as the front drawing rollers; the roller I, may be made by grooving out a solid rod of metal of fixing disks of metal to a small rod, holes being made in the disks, through these holes rods of metal, or glass, should be passed, the action of this
80 roller, will much assist the passing up the twist, and consequently greatly assist in preventing the breaking down of the thread; in order that the improvement may be appreciated, it will be necessary to state the
85 cause of the irregularity in the drag in the ordinary machines. If the spindle is the least out of true, it follows, that when the spindle shall have acquired a certain velocity, this little irregularity will cause it to
90 strike a blow against the bobbin, by which the bobbin will be thrown against the spindle, in the opposite direction, just as this action takes place, the spindle has completed say a half revolution, which again
95 brings the most prominent part of the spindle in contact with the bobbin. To such an extent will the effects of this vibratory motion extend particularly when assisted by an irregularity in the bobbin itself, that the
100 bobbin will cling to the spindle without scarcely any tendency to descend by its own weight, and sometimes these succession of blows, will take place at such a peculiar succession of points on the bobbin as to
105 drive the bobbin faster than the spindle, when of course there will be no take-up at all. In the improved form just described, the spindle can never act on the bobbin in the above described manner, for, if a blow 110

is struck against the top of the bobbin (the only part where the spindle is allowed to touch it) it will cause a reacting blow against the stationary collar or bolster beneath, which will neutralize the affects of the blow from the spindle, and it will be found, that the joint effect of the action of the revolving spindle against one end of the bobbin, and the action of the stationary part against the other end of the bobbin, will be such that at almost any velocity at which the spindle can be run there will still be a uniform and gentle drag. We are aware that tubes have been made to pass up into the bobbins for the purpose of running them on these as a staff or support, but this is evidently another thing as the figures will show.

What we claim as our invention is—

1. The forming the bobbin or the tube carrying the bobbin, or the tube itself, or the tube and bobbin combined as in Fig. 11, in such a manner, that the upper bearing at

the upper end of the tube or bobbin shall be against the spindle, and the lower bearing laterally shall be against a fixture, on or in the rail below, as described, or against a lateral bearing on the rail itself; the bobbin or tube, not having any other bearing except at its two extremities. 25 30

2. And we also claim as new, and of our invention the placing of the roller I, in front of the drawing rollers and revolving same in the direction of the arrow and the use of same in connection with spinning fibrous substances. 35

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Witnesses:

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