P. Stevens.

Spinning Machinery.

No. 3,553. Patented Apr. 20, 1844.

Fig. 2.

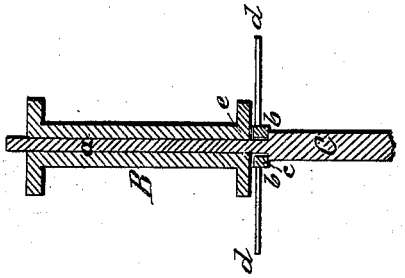
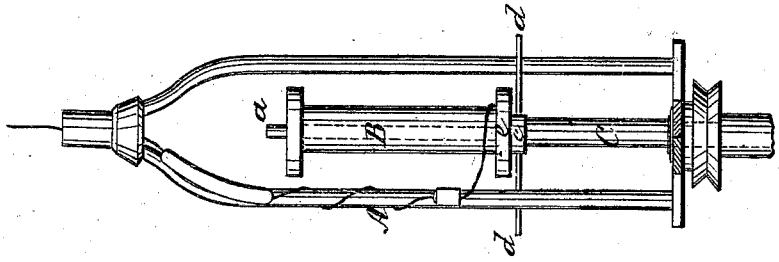


Fig. 1.



UNITED STATES PATENT OFFICE.

PHINEAS STEVENS, OF NASHUA, NEW HAMPSHIRE.

FLIER AND DEAD SPINDLE FOR SPINNING.

Specification of Letters Patent No. 3,553, dated April 20, 1844.

To all whom it may concern:

Be it known that I, PHINEAS STEVENS, of Nashua, in the State of New Hampshire, have invented a new and useful Improvement in Machinery for Spinning or Making Roving and Cotton or other Yarn or Twist, and that the following description and accompanying drawings taken together constitute a full and exact specification of the construction and operation of the same.

Figure 1, represents a vertical side elevation of a flier, bobbin and spindle—and Fig. 2, is a vertical and central section of the same.

A, denotes the flier, B, the bobbin, and C, the spindle; which, in this instance, is what is termed a dead spindle. The top or part *a*, of the spindle, over which the bobbin is placed, is made smaller in diameter than the remainder; or, in other words, is diminished in its size, so as to form a shoulder at *b*, *b*, Fig. 2, for the support of the bobbin, and other parts to be hereinafter described. Upon the shoulder a cylindrical or other proper shaped piece of metal *c*, rests; the said piece having a hole bored through it by which it may be slipped over and upon the spindle, the diameter of the said hole being so great as to permit a free and easy revolution of the piece *c* upon the spindle, with as little friction as possible. Two arms *d*, *d*, extend from the piece *c*, one being on each side thereof, and opposite to each other, as seen in the drawings. The said arms should be long enough to reach by, the flier legs, so that when the flier is revolved, its legs coming in contact with the arms *d*, *d*, will impart to the piece *c*, a corresponding revolution upon the spindle. A leather or other proper washer *e*, may be slipped over the spindle, so as to rest upon the top of the piece *c*, and so that the bobbin will rest upon the washer.

The piece *c*, having its arms *d*, *d*, is a substitute for a live spindle, and by means of it, the amount of friction necessary to spin yarn of very great fineness, and to wind the same upon the bobbin, can be regulated, in a much better and cheaper manner, than by the live spindle. For making roving, this is peculiarly adapted, as so little friction is produced by the revolution of the circular piece or washer *c*, that the amount of friction required to cause the bobbin to operate and wind the roving without straining or breaking it, can be easily obtained.

I claim—

The metallic washer *c*, arranged upon the spindle, and having arms *d*, *d*, or other contrivances of like characters, for the purpose of causing the same to be revolved by the flier, the whole being operated substantially in manner, and for the purpose, as described.

In testimony, that the foregoing is a true description of my invention and improvement, I have hereto set my signature, this fourteenth day of February in the year eighteen hundred and forty four.

PHINEAS STEVENS.

Witnesses:

R. H. EDDY,

HELEM MERRILL.