No. 11,627.

PATENTED AUG. 29, 1854.

J. WHITEHEAD.

COUNTER TWIST SPEEDER.

2 SHEETS—SHEET 1.

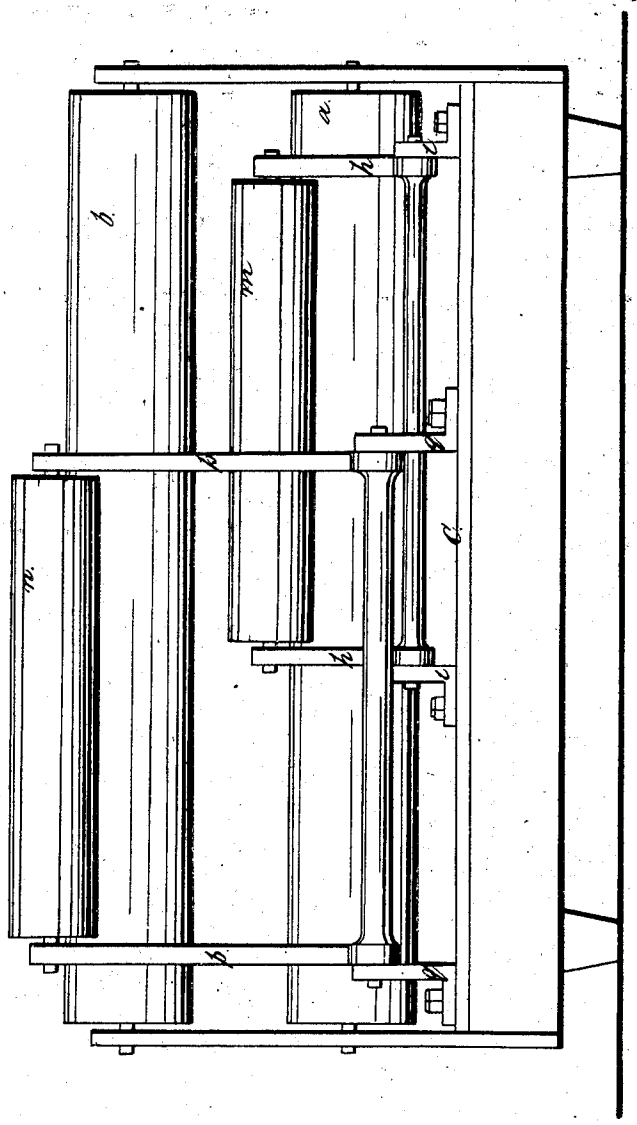


Fig. 1.

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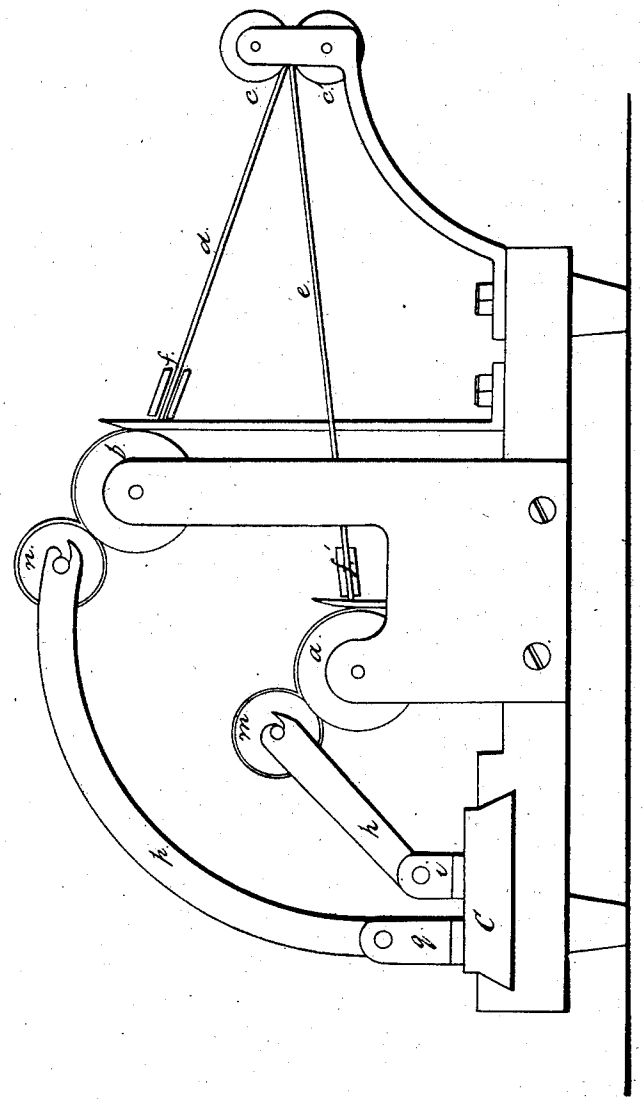
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2 SHEETS—SHEET 2.

Fig: 2.



THE NORRIS PETERS CO PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JESSE WHITEHEAD, OF MANCHESTER, VIRGINIA.

COUNTER-TWIST SPEEDER.

Specification of Letters Patent No. 11,627, dated August 29, 1854.

To all whom it may concern:

Be it known that I, JESSE WHITEHEAD, of Manchester, in the county of Chesterfield and State of Virginia, have invented a new and useful Improvement in Counter-Twist Speeders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, forming part of this specification, in which—

Figure 1 is a front elevation of the speeder. Fig. 2 is an end elevation of the same.

Similar characters of reference in the several figures denote the same part of the machine.

The nature of my invention consists in constructing the speeder with an additional shaft, for driving the bobbins, elevated above the ordinary bobbin shaft; and in combining with this upper bobbin shaft, curved bobbin bars overlapping the lower tier of bobbins, and by their curved form permitting the removal of the lower bobbins when filled, the curved bobbin bars carrying a tier of bobbins equal in length to those in the lower tier; the particular arrangement and advantages of this construction being such as will be hereafter set forth.

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 ordinary shaft for driving the bobbins when but one row is employed, as is the usual mode; *b* is the additional bobbin shaft, elevated above the shaft *a*, and slightly in rear of the same; *c c'* represents the front pair of fluted rollers, from between which issues the roving *d* and *e*, *f f'* are the twisting bands between which the roving runs before passing to the bobbin shafts *a* and *b;* these portions of the speeder being well known will not here require particular description. In front of the shaft *a* and resting against the same is a row of bobbins *m* placed in a continuous line the entire length of the speeder; these bobbins are held by bars *h* movable upon the bearing *i* in the ordinary manner; the particular devices for regulating the pressure of the bobbins not being essential to this invention are not shown. In front of the shaft *b* is a row of bobbins *n* held by the curved bars *p* movable in the bearings *q;* the bars being so placed that the bobbins in the two tiers overlap each other as shown in Fig. 1. The curved form of the bars *p* enables the lower bobbins to be removed when filled, and also admits of the overlapping of the bobbins in the two tiers.

C is the carriage which causes the traversing of the bobbins; a reciprocating motion being given to it by any well known means.

The operation of my improved speeder is as follows: The roving as it issues from the fluted rollers *c c'* is carried alternately to the lower and upper tier of bobbins, no consecutive threads running to the same tier. The traversing of the carriage C on which the bars of both upper and lower tiers of bobbins rest, causes the longitudinal movement of both sets of bobbins; producing the even winding of the roving on the respective bobbins. This arrangement of bars and upper shaft is not confined to any particular mode of condensing or making the counter twist roving, consequently I will not here describe any mode of making said roving, but refer merely to the effect of this invention in winding the roving after it has been made.

By the use of the double tier of bobbins as herein described, the bobbins may be doubled in length, and the same number contained in a given frame as would be held in the single row; for example, if a speeder of ordinary construction held twelve six inch bobbins in a single row, my improved construction will enable the same frame to contain twelve bobbins of twelve inches in length. The advantage of the employment of long bobbins consists in the diminution of the labor of removing and replacing the bobbins, the long bobbins holding more than double the quantity of roving, held by a bobbin of half its length. This saving of labor extends to the spinning department also, as the roving requires less than one half the usual amount of labor in placing the full bobbins in the spinning frames, and removing the empty ones. The number of splicings is also diminished by the use of long bobbins.

What I claim as my invention and desire to secure by Letters Patent, is—

The combination of the upper bobbin shaft *b*, with the curved overlapping bobbin bars *p*, arranged and operating as herein described for the purposes specified.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

JESSE WHITEHEAD.

Witnesses:

GEO. PATTEN,

SAML. GRUBB.