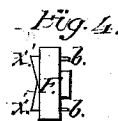
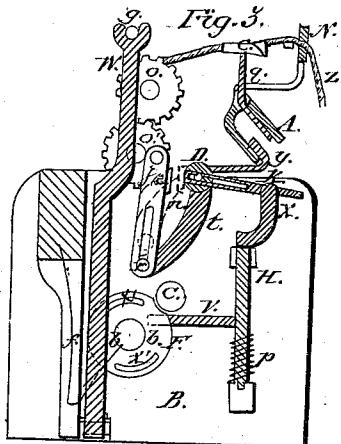
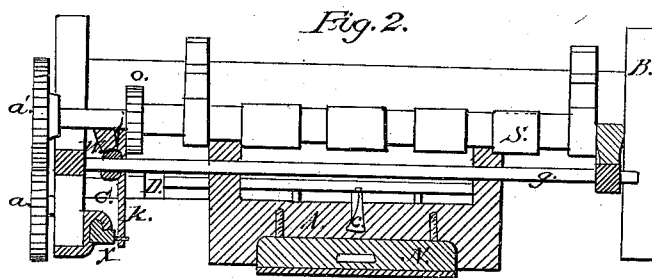
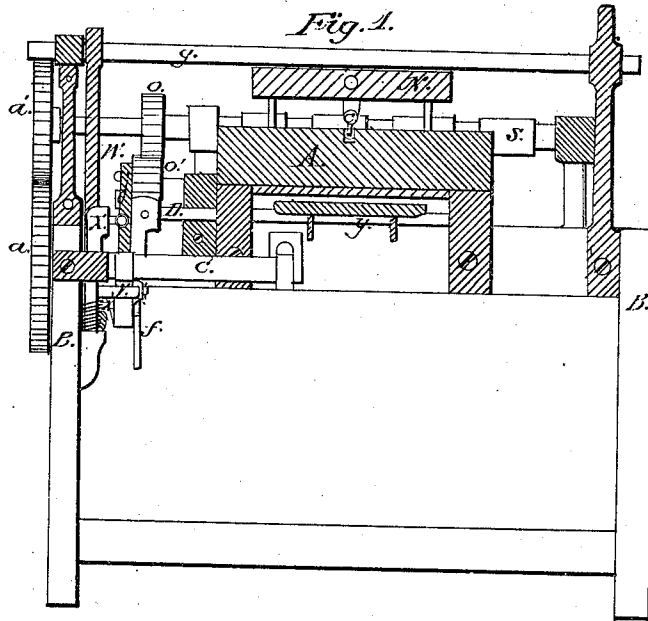


S.B. Westcott,

Cotton Speeder.

No. 106,299.

Patented Aug. 9. 1870.



Witnesses:
Horace A. Foster,
Frank H. Arnold.

Inventor:
Samuel B. Westcott.

United States Patent Office.

SAMUEL B. WESTCOTT, OF RIVER POINT, RHODE ISLAND.

Letters Patent No. 106,299, dated August 9, 1870.

IMPROVEMENT IN STOPPING MECHANISM FOR SPINNING AND OTHER MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, SAMUEL B. WESTCOTT, of River Point, in the county of Kent and State of Rhode Island, have invented new and useful Improvements in Speeders and other Machines for Spinning and Twisting Cotton, &c.; and do hereby declare the following to be a full and correct description thereof, reference being had to the accompanying drawing making part of this specification, and to the letters and numbers of reference marked thereon, similar letters and numbers being used in all the figures to denote the same part.

In the drawing—

Figure 1 is a back elevation of a speeder-frame, showing only so much of the machine as is necessary to explain the improvements.

Figure 2 is a top view of the same.

Figure 3 is a vertical cross-section, taken just inside the end of the frame, to the left.

Figure 4 is a view of wheel F, seen edgewise.

B is the frame of the speeder.

S is the back roll, running in the usual bearings.

A gear-wheel, *o*, on the end of the roll, meshes into and drives a gear-wheel, *o'*, on a stud below.

D is a rocker-shaft, carrying the vibrating bar *y*.

A is an inclined cover placed over the rocker-shaft.

c is a guide-tube fastened to the upper end of a bar, *g*, which passes down through an opening in the cover A, the bar being hung on a pivot at that point, so as to allow it to fall back toward the cover A when the sliver breaks, the lower part of this bar being bent at an angle of about forty-five degrees to the upper.

N is a table or rest, supported by arms projecting from the cover A, and having an opening in it, (see fig. 3,) through which the roving or yarn *z* passes to the tube *c*.

j is an arm fitted to swing on a stud in the face of gear-wheel *o'*.

It has a slot in its lower half, through which a pin in the end of arm *t* works, and there is also a sliding plate, *n*, fitted into the back of the arm *j*, the lower end of which is also fitted onto the pin in the end of the arm *t*.

The upper end of the plate *n* is drawn back of the arm *j* by the spring *e*.

C is a shaft driven by the gear-wheels *a* and *a'*, the last-named gear being fast on the back roll S.

F is a pulley applied to a stud fast to the frame, and having two recesses in its edge, in which the shaft C will turn without revolving the pulley, but the shaft C is placed close enough to be in contact with the other parts of the periphery of the pulley, and to turn it at times by friction.

V is an arm projecting out from the shaft H, and

catching on a pin, *b*, in the side of the pulley F, to prevent it from turning, and a spring, *f*, presses on the other pin *b*, to turn the pulley when the arm V is moved away from the pin *b*.

X' X' are two inclined planes on the back of the pulley F, which, when the pulley turns, press against the lever W, and, through it, slide the rod *g*, which throws off the driving belt.

k is a sliding bar, guided and held by a pin in the end of the shaft D, which projects through a slot in the bar, the other end of the bar being connected with the crank X on the upper end of the shaft H.

A spiral spring, *p*, on the lower end of the shaft H, turns it so as to make arm V press against the side of the pulley F.

The guide-tube *c* has a longitudinal spiral slot in the top and side of it, through which the roving or yarn may be passed, to avoid the trouble of threading it through endwise.

The operation is as follows:

The speeder being put in motion, the gear-wheel *o* in the back roll turns the wheel *o'*, which gives a rocking motion to the shaft D by the bar *j* and arm *t*, and this causes the plate *y* to vibrate in and out under the cover A.

So long as the roving *z* continues whole it holds the guide-tube *c* up level, and keeps the lower end of the bar *g*, to which it is attached, up out of the way of the plate *y*. But, when the roving breaks or runs out, the tube *c* will fall back, and the lower end of the bar *g* will drop down in the way of the plate *y*, and stop its vibrations. This will cause the bar *j* to slide down on the pin in the arm *t*, and throw out the upper end of the plate *n* against the end of the bar *k*, which pushes the shaft H around so as to throw the arm V off from the pin *b*, when the spring *f*, pressing on the other pin *b*, causes the pulley F to turn far enough to impinge against the shaft C, which gives it a half revolution, bringing one of the inclined planes X' against the lever W, which slides the bar *g* and shifts the driving-belt, stopping the speeder.

Having thus described my improvements,

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

1. The combination and arrangement of the pulley F with pins *b b* on one of its sides, and the inclined planes X' X' on the other side, with the springs *f*, arms V and W, and shafts H and C, substantially as set forth, and for the purpose specified.

2. The slotted bar *j*, with plate *n* and spring *e*, in combination with the bar *k*, arms *t*, *y*, and *g*, and shafts D and H, substantially as specified, and for the purpose set forth.

Witnesses:

SAMUEL B. WESTCOTT.

HORACE N. FOSTER,

FRANK H. ARNOLD.