F. S. CULVER.

SPOOLING OR WINDING MACHINE.

APPLICATION FILED DEC. 8, 1911.

1,039,906. Patented Oct. 1, 1912

Fig. 1.

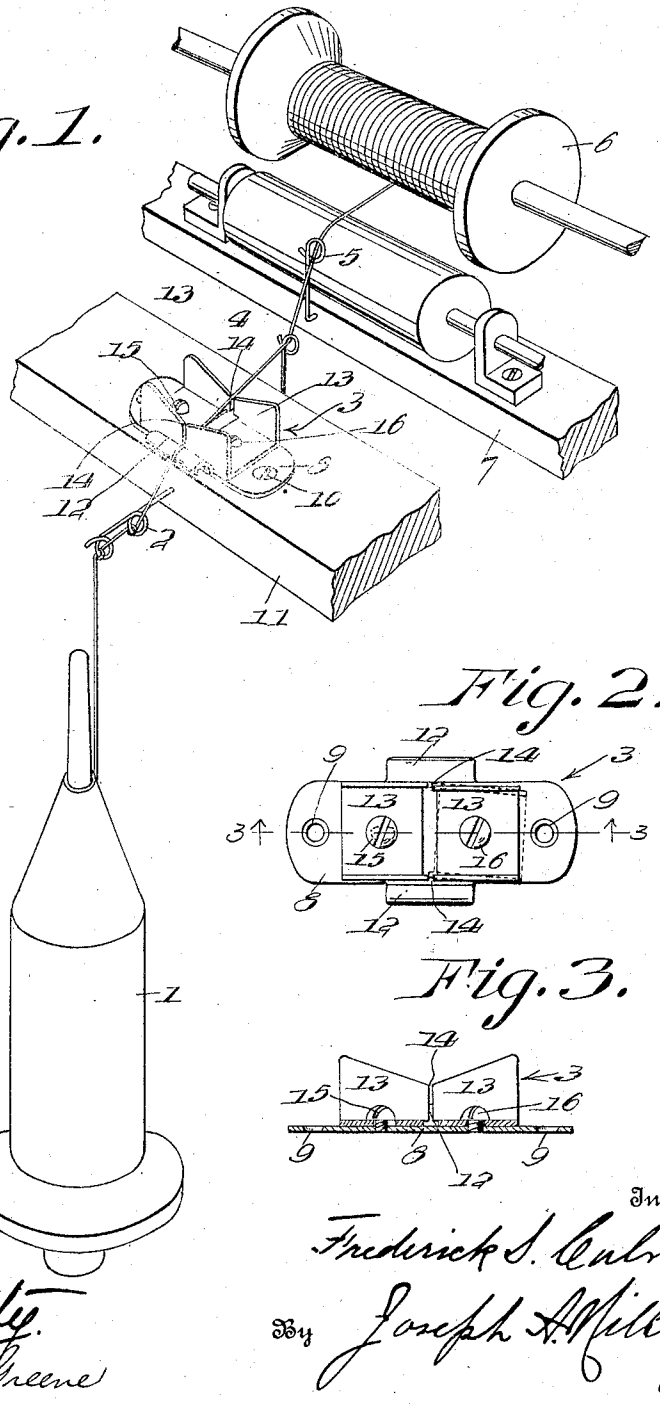

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

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SPOOLING OR WINDING MACHINE.

1,039,906. Specification of Letters Patent. Patented Oct. 1, 1912.

Application filed December 8, 1911. Serial No. 664,615.

To all whom it may concern:

Be it known that I, FREDERICK S. CULVER, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Spooling or Winding Machines, of which the following is a specification.

This invention pertains to certain new and useful improvements in spooling or winding machines, and relates more particularly to a slub detector therefor.

The object of the invention is to provide simple, novel and efficient means for preventing the passing of slubs, bunches, or other imperfections held by or formed in or on the yarn.

Further, the invention aims to provide a slub detector in which same is adaptable to any of the various types of spooling or winding machines.

Further and other objects will be later set forth.

In the drawings: Figure 1 is a fragmentary perspective view of the present invention applied to a spooling or winding machine, Fig. 2 is a top plan view of the slub detector, and Fig. 3 is a section on the line 3—3 of Fig. 2.

The yarn on the bobbin 1 passes up through a guide eye 2, then through the slub detector 3 and through a second guide 4, and an ordinary pig-tail guide 5 to the spool 6 on which latter the thread is wound. The rod 7 which carries the pig-tail guide 5 is given a reciprocating motion by any suitable means, so that the yarn taken from the bobbin 1 will be properly laid on the spool 7 to form either a cone or a roll.

The slub detector consists of a base plate 8 formed with screw holes 9 to receive screws 10 by means of which the plate is secured to the part 11. The opposite sides of the plate 10 are formed with extensions 12 which are curved or curled outwardly to form abutments to engage and restrict the swinging movement of the pivoted wing 13. The wings 13 are of U-shape and have their inner vertical edges formed sharp and confronting each other so as to form spaces 14 therebetween through which space the thread passes as clearly depicted in Fig. 1 of the drawings. One of the wings is preferably stationarily, though adjustably, secured to the base plate 8 by means of a set screw 15, the other wing being pivotally mounted on the base plate 8 by means of a screw 16, so that the wing may have a pivotal movement from the position shown in full lines in Fig. 2 to the dotted line position therein shown. The purpose of having the wing secured by the screw 15 adjustable is to permit same to accommodate yarn having different or varying diameters. The abutments 12 restrict the swinging movement of the pivoted wing, and by virtue of their being rounded on their top faces same will not cut the yarn, but to the contrary will provide faces on which the yarn can easily ride.

In operation the yarn passes in the space 14 between the wings 13, and if a slub carried by the yarn or other defects which vary the diameter of the thread comes along, the pivoted wing will be moved from the full line position shown in Fig. 2 to the dotted line position therein depicted, thus pinching the yarn. By means of the present invention all imperfections on the yarn coming from the bobbin will be stopped, thus preventing them from passing to the spool 6.

Having thus described my invention, I claim as new and desire to secure by Letters Patent;—

1. A slub detector consisting of a base plate having its opposite sides formed with rolled extensions, U-shaped wings mounted between the extensions, means to rigidly secure one of the wings to the base plate, and means to pivotally secure the other wing to the base plate, said wings having confronting front and rear edges which are spaced apart to form thread passages.

2. In a device of the type set forth, a base plate having an extension on one side thereof which is bent in the arc of a circle to provide an abutment and yarn rest, a member rigid on said base and a member pivoted on said base, the pivoted member being disposed so that its swinging movements are restricted by engagement with said abutment.

3. In a device of the type set forth, a sta-

tionary member of U-shape in cross-section and a pivoted member of U-shape in cross-section arranged adjacent the stationary member so that the vertical parts of said member will form front and rear thread passages.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK SLOCUM CULVER.

Witnesses:
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