

F. S. CULVER.
SPINNING MACHINE.
APPLICATION FILED AUG. 4, 1909.

946,203.

Patented Jan. 11, 1910.

Fig. 1.

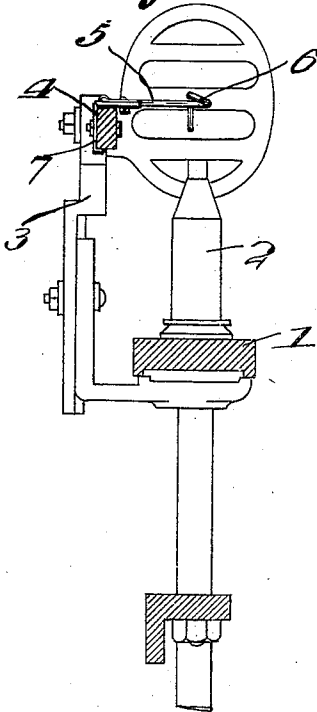


Fig. 2.

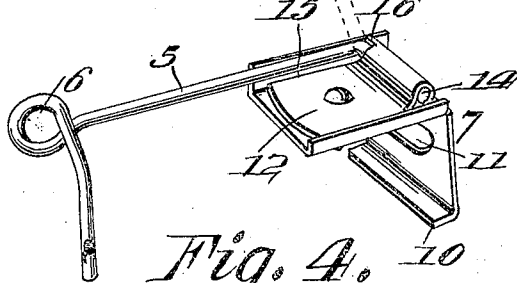
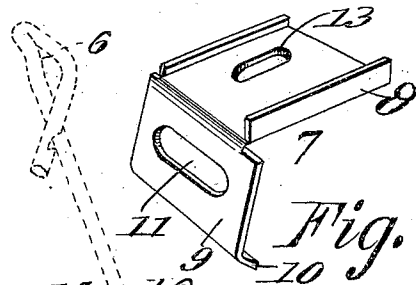
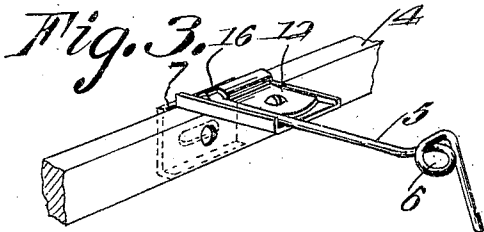
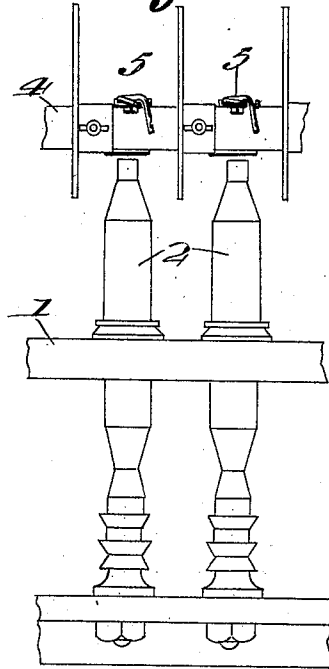


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK S. CULVER, OF TAUNTON, MASSACHUSETTS.

SPINNING-MACHINE.

946,203.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed August 4, 1909. Serial No. 511,135.

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 Spinning-Machines, of which the following is a specification.

This invention relates to guide wires and supports for the same employed in spinning machines to guide the threads and prevent vibration thereof between the bobbins and the spinning rolls.

The object of the invention is to provide a guide wire and support for the same in which the guide wire is pivotally secured.

It is also an object to construct a guide wire which will automatically and readily adjust itself to the vertical pull or movement of the thread, and which may be thrown out of the path of the thread when it is desired to renew or doff the bobbins.

With these objects, and the purpose of improving the general construction of guide wires for spinning machines, in view, my invention will now be hereinafter fully set forth and described, reference being had to the accompanying drawings which form a part of this specification, and in which—

Figure 1 is a vertical sectional view taken through a spinning machine, and showing my improved guide wire in position over a bobbin. Fig. 2 is an elevation, showing the front of a section of a spinning machine. Fig. 3 is a detail perspective view of the guide wire showing the method of its support. Fig. 4 is an enlarged detail view of the guide wire and its support, and Fig. 5 is a perspective view of the supporting member.

Referring more particularly to said drawings, in which like numerals indicate like parts throughout, 1 indicates a ring rail upon which are supported the spinning rings for the bobbins 2.

3 is the supporting frame work which carries on its upper portion the guide wire rail 4 which in the construction shown takes the place of the well-known thread board.

In practice the guide wires are located above the bobbins with the eyes arranged concentrically with the tops of the bobbins in order to guide the thread smoothly and thoroughly as it is unwound from the bobbin.

In the drawings, which illustrate a preferred embodiment of the supporting means

for my guide wire, the guide wire is shown secured to the guide wire rail of a spinning machine of ordinary construction. It is to this rail 4 that the guide wire 5 support is secured. Said guide wire 5 comprises a normally longitudinally disposed member of steel wire or other suitable metallic material, which terminates at its outer end in an eye 6 and is hinged at its rear end to a supporting plate 7. Said plate 7 comprises a horizontal channeled member 8, and a rear vertically-disposed member 9 which terminates at its lower edge in an upturned flange 10. Said vertical member 9 is provided with a longitudinal slot 11, said slot being provided to form a longitudinally adjustable means for mounting the supporting plate 7 to the rail 4. Thus, the member 8 overlies the rail 4 and projects over the forward edge thereof, the member 9 lies upon the vertical rear face of said rail 4 and the flange 10 embraces the lower side of said rail 4, and a bolt projected through said slot 11 and through said rail 4 serves to secure the supporting plate 8 in position. Within said channeled member 8 is seated a hinge leaf 12, said hinge leaf 12 being provided with a bolt which passes through said leaf and through a slot 13 formed in said channeled member 8, whereby said leaf may be longitudinally adjusted in said channel member 8. The rear end of said leaf 12 is curved as shown in Figs. 3 and 4 to provide a socket for a transversely projected end 14 of the guide wire 5, and said leaf is also cut away at one side, as at 15 to permit the horizontal portion of said guide wire 5 to lie horizontally against the channel member 8 between said leaf and one of the upstanding flanges of the channel member 8. In order to limit the backward movement of the guide wire 5 as it swings upwardly and backwardly by reason of its pivoted connection with the leaf 12 and member 8, the curved portion of said leaf 12 is provided with a projection 16, which extends transversely behind the end of said guide wire 5 and forms a stop therefor. This projection may be provided by simply cutting away a portion of the side of the leaf 12 when said leaf is being formed to provide the seat for the guide wire 5.

It is evident that the device is capable of adequate adjustment longitudinally and transversely of the machine to center the same over its individual bobbin. It is understood that the described application of

the guide wire support is only one possible way of attaching it to a spinning machine. Instead of being secured directly to a rail 4, it may be secured to a finger rail, or to any
5 suitable portion of the frame of a spinning machine which will adequately hold the guide wire over the bobbins.

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

1. A guide wire for spinning machines, comprising, in combination, a supporting plate, having a longitudinal channeled portion, a leaf plate fitted in said channeled
15 portion and having a curved portion at its rear end, and a guide wire having a transversely extended end hinged in said curved portion.

2. A guide wire for spinning machines,
20 comprising, in combination, a supporting plate, having a longitudinal channeled portion, a leaf plate fitted in said channeled

portion and having a curved portion at its rear end, a guide wire having a transversely extended end hinged in said curved portion, 25 and a stop to limit the upward movement of said hinged guide wire.

3. A guide wire for spinning machines, comprising, in combination with the rail of a spinning machine, a supporting plate se- 30 cured on said rail and being longitudinally adjustable thereon, a leaf plate carried by said supporting plate and having a curved portion at its rear end, said plate being mounted for adjustment on said supporting 35 plate, and a guide wire hinged in said curved portion of said leaf plate.

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

FREDERICK S. CULVER.

Witnesses:

ADA E. HAGERTY,

J. A. MILLER.