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W. P. WATSON

SPINDLE PROTECTOR

Filed Oct. 17, 1921

Fig. 1.

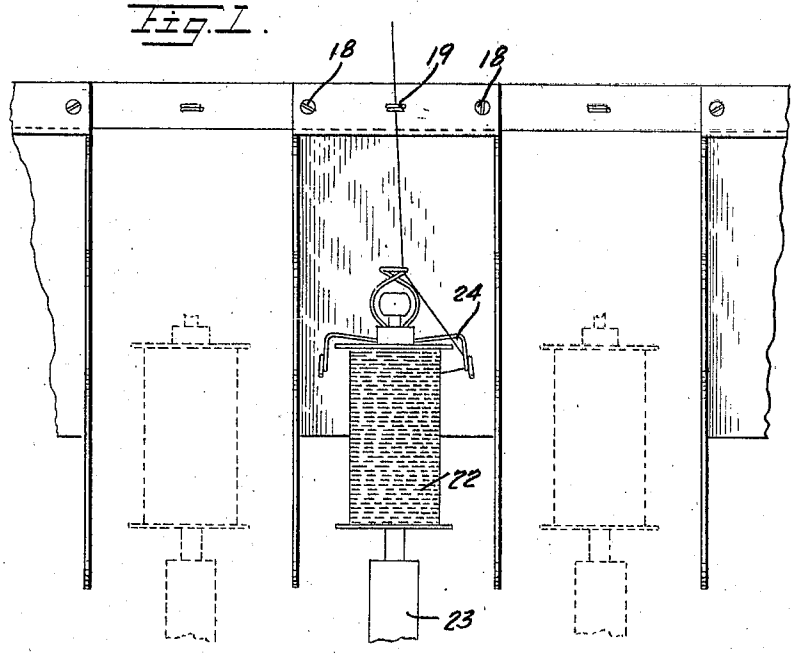
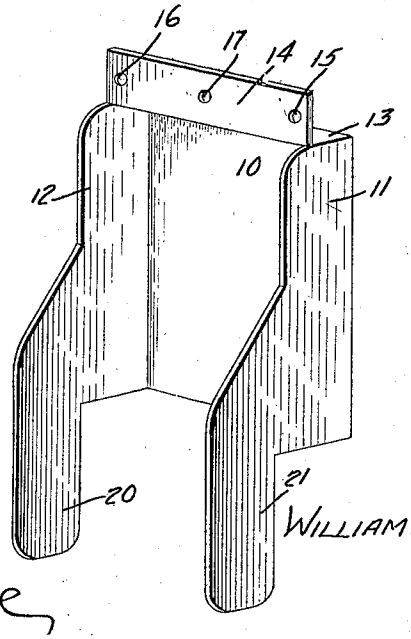


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM PIERCE WATSON, OF PHILLIPSBURG, NEW JERSEY.

SPINDLE PROTECTOR.

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To all whom it may concern:

Be it known that I, WILLIAM PIERCE WATSON, a citizen of the United States, and a resident of Phillipsburg, in the county of Warren and State of New Jersey, have invented a new and Improved Spindle Protector, of which the following is a full, clear, and exact description.

This invention relates to attachments for use in conjunction with the spindles of spinning machines.

The machines provided in the silk spinning industry are not supplied with adequate means for protecting the spindles carrying bobbins and flyers. The result is that when the thread from the bobbin breaks there is nothing to prevent the ballooning of the thread from interfering with the threads of the adjacent bobbins. The final result of the breaking of one thread is that it becomes entangled with the adjacent threads, breaking them, and they, in turn, breaking the threads next to them, until the whole machine ceases to perform useful work. The broken threads have all to be connected before the machine will operate properly and this takes a considerable amount of time thus increasing the expense of manufacturing the silk.

The general object of this invention is to provide a cheap and efficient means for protecting the threads on any spindle from the threads on adjacent spindles should they break.

A further object of the invention is to provide a protecting means for the threads on any spindle which allows the operator access to the spindles but still protects him to a certain extent from being hit by the flyer while working about the spindles.

These objects are accomplished by mounting in conjunction with alternate spindles a protector that extends around the back and on two sides of the spindle thus limiting the distance that a ballooning thread may spread.

These and other objects of the invention will be more clearly understood from the following detailed description and accompanying drawings.

Figure 1 is a front elevation of a protector mounted on a spinning rail; and

Figure 2 is a perspective view of the protector.

Referring to the above-mentioned drawings, the protector consists of a scoop-shaped body portion having a back wall 10, two side walls 11 and 12, and a top 13. In the preferred construction the side walls extend at right angles to the back wall 10, and the top 13 is integral with the back wall and side walls. Extending at right angles to the top is an attaching plate 14 which is provided with three openings 15, 16 and 17. Openings 15 and 16 are so located that they register with threaded openings drilled in the spinning rail. The protector is fixed in position by means of screws 18 which project through the openings 15 and 16 in the attaching plate 14. The opening 17 is provided for a thread guide 19 which extends into the spinning rail. Integral with the side plates 11 and 12 are two rectangular depending legs 20 and 21. These legs extend in the same plane as the walls 11 and 12 and are located in front of a line extending along the upper edges of the walls.

The spindle protectors may be made from any material but are preferably made from some light sheet metal or galvanized iron that may be easily worked. The shape of the protector is as described and the back wall 10 extends about half-way down the bobbin 22 carried on the spindle post 23. The legs 20 and 21 extend between the bobbins and they project below the bottom ends of the same. The upper sloping edges of the legs are on a level with the upper ends of the bobbins and flyers 24.

When these protectors are placed in position on the spinning rail they limit the area affected by the ballooning of a thread. The consequence is that when the thread on one bobbin breaks and balloons it does not affect the thread on the adjacent bobbins and the operator has only one thread to connect. This eliminates a great loss of time.

I would state in conclusion that while the illustrated example constitutes a practical

embodiment of my invention I do not limit myself strictly to the exact details herein illustrated since manifestly the same can be considerably varied without departing from the spirit of the invention as defined in the appended claims.

Claims.

1. A spindle protector for use with spinning machines, comprising a plate for attaching to the spinning machine rail, depending back and side members carried by the attaching plate to protect the upper end of the bobbin, and depending legs integral with the side members.

2. A spindle protector for use with spinning machines, comprising a scoop-shaped body portion, an attaching plate integral with the body portion and extending upward for connecting the protector to the spinning rail, and two depending legs, one attached to each of the side walls of the body portion.

WILLIAM PIERCE WATSON.