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GUIDE FOR QUILL WINDERS.

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1,388,595.

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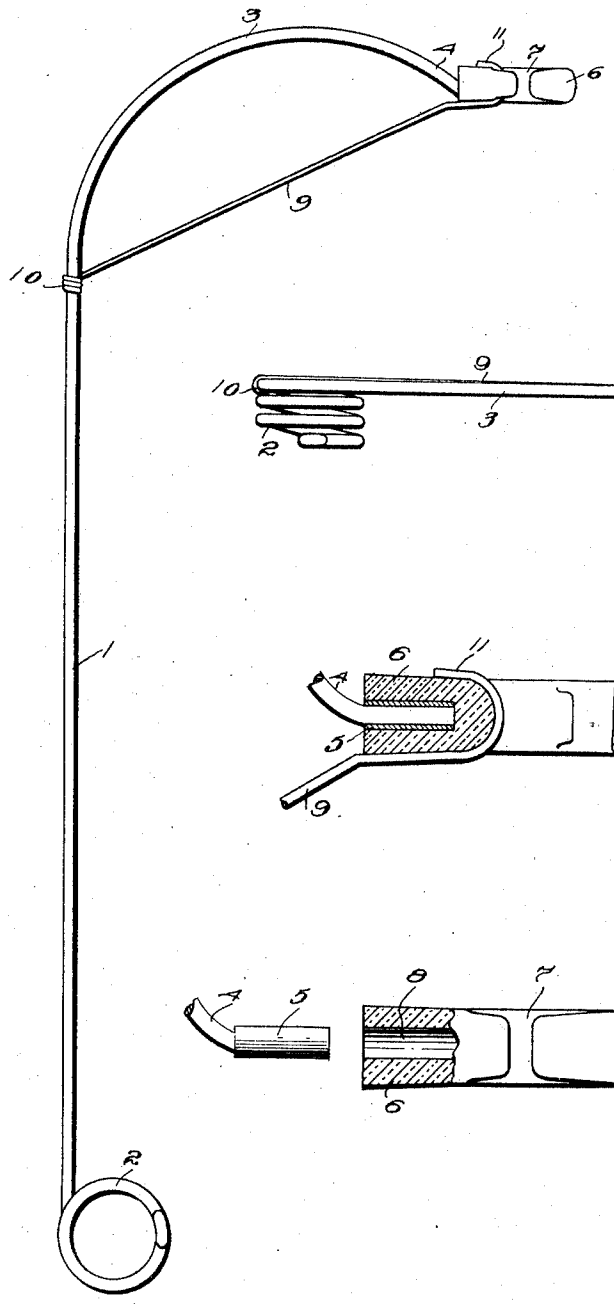

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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To all whom it may concern:

Be it known that I, JOHN A. OLBON, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Guides for Quill-Winders, of which the following is a specification.

This invention relates to tension wires for quill winders, and more particularly to means for securing eyes to said tension wires; and it comprises a tension wire having a curved portion and an offset end, a bushing arranged on the offset end, an eye removably mounted on the bushing and securing means for said eye, said means comprising a member having a hook on one end adapted to engage the eye, and means for securing said member to the tension wire; all as more fully hereinafter set forth and as claimed.

In the present construction of quill winders, tension wires are provided and eyes having openings for the passage of thread are arranged on the ends of the tension wires. These eyes are made of porcelain or like material and frequently become broken. At the present time, the eyes are secured to the ends of the quill winder by applying shellac or other sticky substance to the wire and baking or heating the porcelain eye after it has been placed thereon to secure it in position. The process is necessarily slow and quite often it has been found advantageous to use an entire new tension wire rather than resort to this slow process of replacing the eye.

In the present invention, I have provided an eye that is readily removable and which may be replaced in a very short time. The end of the tension wire is provided with a bushing of brass or similar metal, and the eye is provided with an opening adapted to be received therein. A fastening member of spring wire or the like is secured to the tension wire near a bend or loop therein and this fastening member is provided with a hooked end adapted to be received in the eye to hold it in position.

In the accompanying drawings, I have shown a preferred embodiment of the invention. In this showing:

Figure 1 is an elevation of the tension wire with the eye in place.

Fig. 2 is a top plan view thereof.

Fig. 3 is a vertical longitudinal sectional view through the eye showing it in position on the end of the tension wire, and,

Fig. 4 is a detail view of the end of the tension wire showing the eye detached.

Referring to the drawings, the reference numeral 1 designates a tension wire of a quill winder provided with the usual coil spring 2 at the bottom. The looped portion 3 of the tension wire is somewhat similar to the usual construction, but the curve is of a greater radius and the end 4 curves downwardly and terminates in a substantially horizontal section adapted to receive a metallic bushing 5.

An eye 6 is provided with the usual opening 7, and is also provided with an opening 8, whereby it may be arranged on the bushing on the end of the tension wire. The eye is held in position by a fastening member consisting of spring wire and the body portion thereof is arranged as an arc of the curved portion 3 of the tension wire, as at 9. One end 10 is secured to the tension wire by wrapping or twisting it about the tension wire. The opposite end is provided with a hook 11 shaped to fit the opening in the eye.

When the eye becomes broken or is to be removed for any other reason, the hooked end 11 of the fastening member 9 is removed from the opening in the eye and the eye removed from the bushing. A new eye is then placed in position and the hooked end 11 snapped back into place.

The arrangement of the curvature 3 of the tension wire on a greater radius than in the usual construction with the curve extending downwardly, as at 4, produces a construction wherein there is a substantially direct pull inwardly toward the vertical leg 1 of the tension wire exerted by the fastening member 9. This insures proper support of the eye and eliminates the possibility of displacement.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. The combination with a quill winder embodying a tension wire and an eye detachably arranged thereon, said eye being pro-

vided with the usual guide opening and with an opening adapted to receive the end of the tension wire, of means for securing said eye to the tension wire, said means comprising a fastening element of wire secured to the tension wire engaging the guide opening of the eye.

2. The combination with a quill winder embodying a tension wire and an eye detachably arranged thereon, said eye being provided with a guide opening and an opening adapted to receive the end of the tension wire, of means for securing said eye to the tension wire, said means comprising a fastening element of wire, one end of which is coiled around the tension wire, and a hook formed on the other end of said fastening element adapted to be arranged in the guide opening of said eye.

3. The combination with a quill winder embodying a tension wire and an eye detachably arranged thereon, of fastening means for said eye comprising a member of wire having one end coiled around said tension wire, and a hook arranged on the other end of said fastening elements and engaging said eye.

4. The combination with a quill winder comprising a vertical arm, a curved portion arranged thereon and a substantially horizontal terminal at the end of said curved portion, of means for detachably securing an eye thereto, said means comprising a member of wire having one end coiled about the vertical arm of said tension wire and having the body portion thereof arranged at an angle to said arm, and a hook upon the opposite end of said member, said hook being adapted to engage an eye arranged on the terminal of said tension wire.

In testimony whereof I affix my signature.

JOHN A. OLBON.