

R. S. MATTESON.  
BOBBIN HOLDER.  
APPLICATION FILED MAY 7, 1909.

955,088.

Patented Apr. 12, 1910.

2 SHEETS—SHEET 1.

FIG. 1.

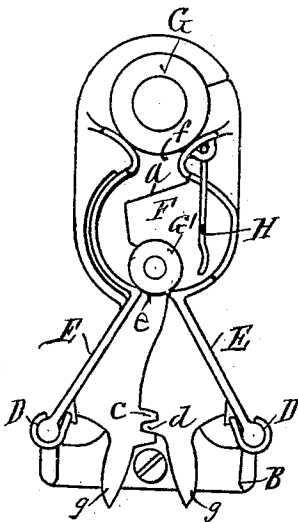
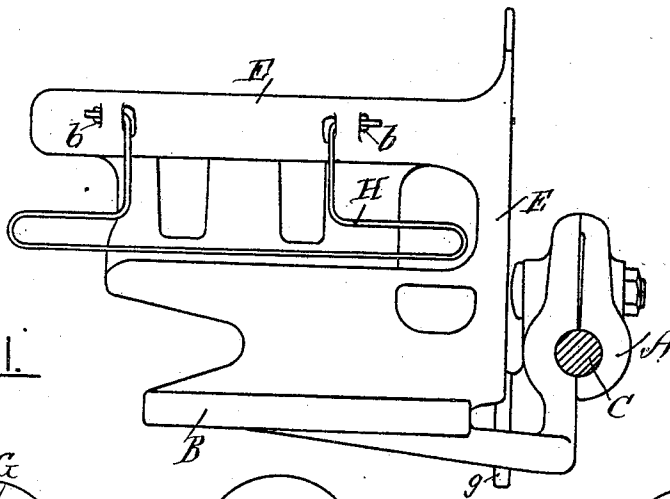


FIG. 2.

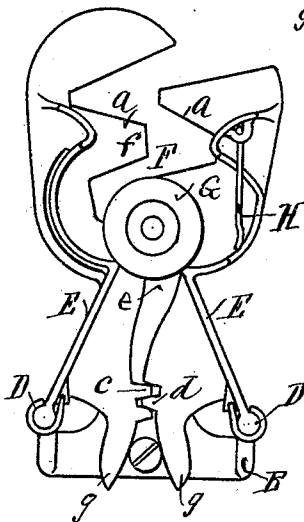


FIG. 3.

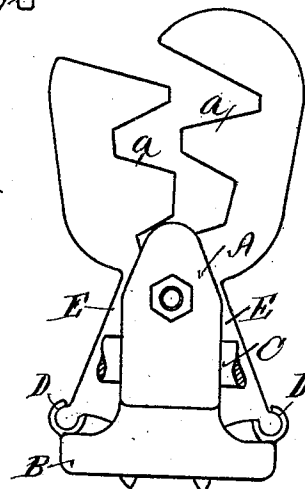


FIG. 4.

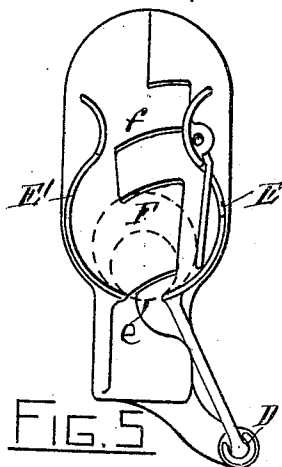


FIG. 5.

WITNESSES

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2 SHEETS—SHEET 2.

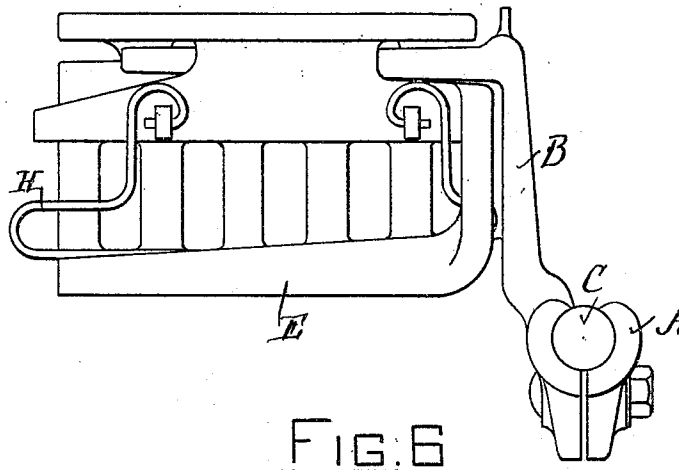


FIG. 6

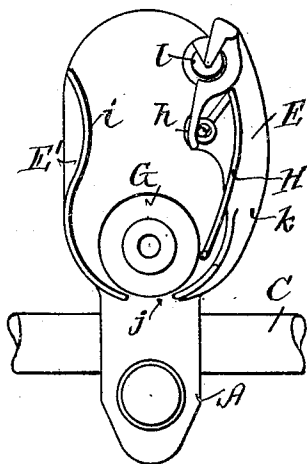


FIG. 7

WITNESSES

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# UNITED STATES PATENT OFFICE.

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## BOBBIN-HOLDER.

955,088.

Specification of Letters Patent. Patented Apr. 12, 1910.

Application filed May 7, 1909. Serial No. 494,712.

*To all whom it may concern:*

Be it known that I, RUFUS S. MATTESON, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Bobbin-Holders, of which the following is a specification.

In the employment of bobbin holders heretofore in spooling machines, it has been necessary to first remove the expended bobbin from the holder by hand, and then to insert therein a filled bobbin, thus requiring the attendant to perform two distinct operations in replenishing the holder whenever the yarn of the bobbin in the holder has been expended.

It is the object of my invention to greatly facilitate the work of an attendant of such machines; and it consists in dividing the holder longitudinally so that the forcible insertion of a filled bobbin laterally of the bobbin, will at the same time cause the ejection of the expended bobbin.

In the accompanying drawings:—Figure 1 represents a side elevation of a bobbin holder provided with my improvement. Fig. 2 represents a forward end view showing an expended bobbin held in the chamber of the holder, with a filled bobbin ready for insertion. Fig. 3 represents the inserted filled bobbin, and consequent ejection of the expended bobbin. Fig. 4 represents a rear end view of the holder, showing the interlocking form of the meeting edges of the arms of the holder. Fig. 5 represents a forward end view showing a form of construction in which a single arm is employed for holding and releasing the bobbin. Fig. 6 represents a side view showing a modification. Fig. 7 represents a forward end view of the same.

In the drawing, A represents the clamp by means of which the frame B, of the holder is secured to the rod C of a spooler, the said frame being provided with the longitudinal grooves D, D, in which are pivoted the opposite arms E, E, which latter serve to form the pocket F for receiving and holding the filled bobbin G, the expended bobbin G' being shown in the closed pocket F, in Fig. 2, and a filled bobbin G shown in the pocket F of Fig. 3. The meeting edges a, a, of the arms E, E, are made in interlocking form, in order to prevent the

accidental escape of the bobbin from the pocket when the arms E E are opened.

H is the usual guide wire which is located to swing at the side of the bobbin being pivoted to one of the arms E at the points b, b. The arms E, E, are so pivoted relatively to each other, that they fall toward each other by gravity, and are connected together for positive simultaneous movement by means of the engaging teeth c and d. The throat e formed between the arms E, E, is made smaller than the diameter of the expended bobbin G', as shown in Fig. 2, and from the said throat the arms E E extend outward, upward and inward, and then again outward to form a tapering throat f, adapted for the forcible passage of the filled bobbin G into the pocket F, as shown in Fig. 2, and when the yarn upon the bobbin G' has been expended, the operator in forcing the filled bobbin G downward through the throat f into the pocket F, as shown in Fig. 3, causes at the same time the discharge of the expended bobbin G', through the throat e, after which the arms E E will automatically close together, as shown in Fig. 2, and then another filled bobbin G may be placed above the throat f, in preparation for the discharge of the subsequently expended bobbin.

By the employment of my improvement, an operative may attend a much greater number of machines than heretofore, the operation of charging the pocket F with a filled bobbin, and discharging the expended bobbin therefrom, being practically instantaneous.

The downwardly extending projections g, g, serve to form a stop to the outward movement of the arms E, E, when discharging the bobbin.

A somewhat different construction of the bobbin holder is shown in Fig. 5, in which one of the arms E' is made stationary and forms a part of the frame while the other arm E is pivotally held as before, the latter arm being adapted for an increased degree of movement, over that of each of the arms E, E, of Fig. 2, taken singly.

A modification in the principle of construction is shown in Figs. 6 and 7, in which the arm E is made to form a fixed portion of the frame, as in Fig. 5, while the movable arm E' is pivoted at the top of the holder

instead of at the bottom, and in this case the engagement of the incoming filled bobbin with the cheeks *h* and *i* of the upper throat *l*, will serve to cause the discharge of the expended bobbin from the holder through the lower throat *j*, the said arm *E'* being weighted at its side *k* whereby it will be caused to gravitate inwardly, to hold the bobbin.

10 It is evident that a spring would constitute an equivalent for the force of gravity in closing the throats of the holder, and it is so considered in this application.

I claim as my invention:

15 1. In a bobbin holder, the combination of a gravitating arm having reëntrant projections which form with corresponding portions of an opposite member a pocket having upper and lower throats, the upper throat serving to admit the forcible entrance of a filled bobbin, while the entrance of the said bobbin causes the opening of the lower throat to discharge the expended bobbin.

20 2. In a bobbin holder, the combination of 25 gravitating arms having reëntrant projec-

tions geared together for simultaneous movement, and forming a pocket having upper and lower throats, the upper throat serving to admit the forcible entrance of a filled bobbin, while the entrance of the said bobbin causes the opening of the lower throat to discharge the expended bobbin. 30

3. In a bobbin holder, the combination of a gravitating arm having reëntrant projections which form with corresponding portions of an opposite member a pocket having upper and lower throats, the upper throat serving to admit the forcible entrance of a filled bobbin while the entrance of the said bobbin causes the opening of the lower throat to discharge the expended bobbin, the abutting edges of the members which form the pocket being interlocked to prevent the longitudinal displacement of the contained bobbin. 35 40

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Witnesses:

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