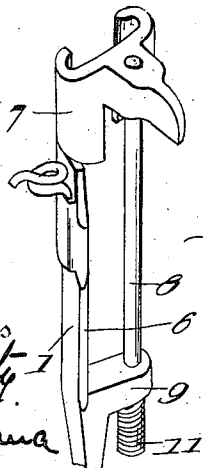
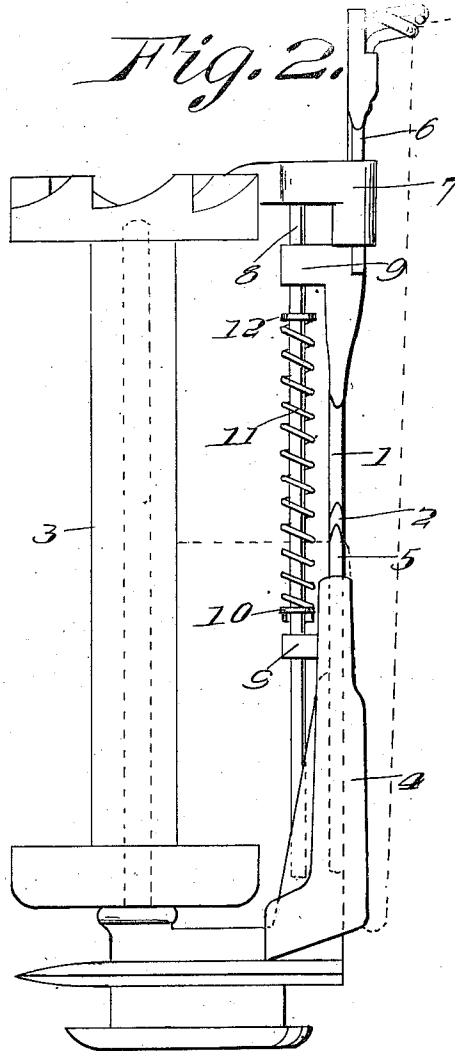
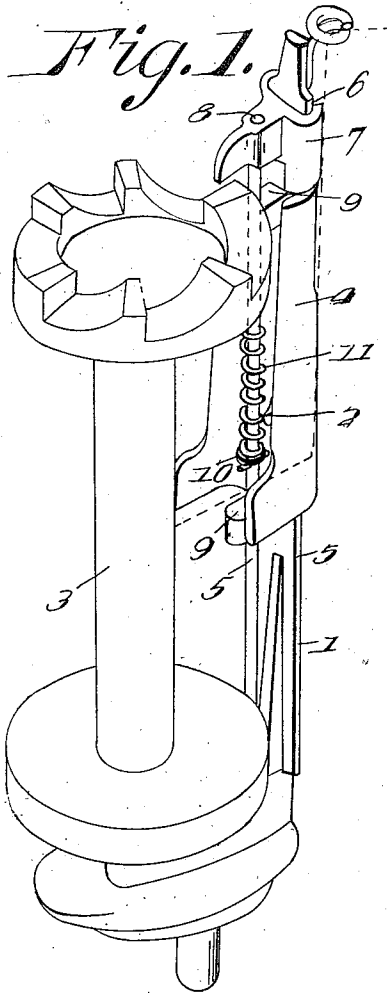


J. E. CHACE.
BOBBIN CARRIER FOR BRAIDING MACHINES.
APPLICATION FILED FEB. 2, 1912.

1,052,215.

Patented Feb. 4, 1913.



Witnesses
Ada C. Hagerty
Elsa B. Hanna

Inventor
J. Eddy Chace
Joseph A. Miller
Attorney

UNITED STATES PATENT OFFICE.

JOHN EDDY CHACE, OF SOUTH ATTLEBORO, MASSACHUSETTS.

BOBBIN-CARRIER FOR BRAIDING-MACHINES.

1,052,215.

Specification of Letters Patent.

Patented Feb. 4, 1913.

Application filed February 2, 1912. Serial No. 675,023.

To all whom it may concern:

Be it known that I, JOHN EDDY CHACE, a citizen of the United States, residing at South Attleboro, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Bobbin-Carriers for Braiding-Machines, of which the following is a specification.

This invention pertains to certain new and useful improvements in bobbin carriers for braiding machines, and the objects of the invention are to generally improve, simplify and enable the economical production of a bobbin carrier, to provide spring means for acting on the latch under certain conditions, and to provide a novel structure in which the weight and the latch are mounted to slide on guides that are located in varying planes.

In the drawings—Figure 1 is a perspective view of the invention. Fig. 2 is a side elevation, and Fig. 3 is a detail fragmentary perspective view of the latch in raised or inoperative position.

The upright arm 1 of the carrier is formed with the usual thread slot 2 to receive the thread as it passes from the bobbin 3. The weight 4 slides on guides 5 that are provided on the lower end of the arm 1 being formed on the opposite side edges of said arm. The upper end of the arm 1 is provided with a pair of vertical guides 6 that are located in a vertical plane to the rear of the plane in which the guides 5 are located. The latch 7 is formed to receive and slide on the guides 6, and same has a depending rod 8 secured thereto, the rod sliding through perforated bosses or bearings 9 that are rigidly secured to or formed integral with the arm 1. The rod 8 has a washer 10 rigidly secured above its lower end, the washer being disposed above the lower bearing 9, and supporting the lower end of a coiled spring 11 that surrounds the rod 8. The upper end of the coiled spring 11 supports a washer 12 that is free to slide on the rod 8 and is adapted for engagement with the under face of the upper bearing 9 under conditions now to be described.

The length of the coiled spring 11 is such that same is brought into operation under two conditions, the first being that in which the weight 4 lifts the latch sufficiently high to enable the bobbin to be rotated, and, second when the bobbin is to be removed in which case the bobbin is manually lifted

so that same causes the latch to be raised therewith, and when the latch has been moved to a position above the upper end of the arm 1, the bobbin is turned to one side or the other carrying with it the latch, which latch will be released from the bobbin and due to the action of the spring 11 will be moved downwardly until the latch rests on the top bearing 9. When the bobbin is raised it will be understood that the upward movement thereof is sufficient to raise the latch above the upper guides 6, so that the latch will be turned by the bobbin to cause the same to be out of alinement with the upper guides, whereupon the spring will act to move the latch downwardly, as above described. When the latch is raised above the top end of the arm, the rod 8 thereof will prevent disengagement of the latch from the arm.

In operation the gravity weight 4 will at all times maintain the proper tension on the yarn. When the yarn has been used to the extent that the weight 4 is brought in contact with the latch 7, the latch will be lifted sufficiently to permit the revolution of the bobbin 3 which supplies additional yarn and causes the weight to descend to its normal position. When the yarn on the bobbin has all been used, the bobbin 3 and with it the latch 7 are lifted to a point where the latch can be turned out of engagement with the guides 6. The spring 11 will then act to draw the latch down onto the upper bearing 9, when a full bobbin can be placed on the bobbin spindles, the latch lifted and turned to its proper position, and the carrier is then in operative condition.

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

1. In combination with the vertical arm of a bobbin carrier, guides at the lower end of the carrier, a weight slidably engaged with said guides; second guides at the top end of the arm located out of vertical alinement with the first mentioned guides, a latch slidably engaged with said second guides, a depending rod carried by said latch, bearings on the arm to receive said rod, and a coiled spring surrounding the rod and having its lower end affixed thereto at a point above the lower bearing and having its upper end for engagement with the under face of the upper bearing.

2. In combination with the vertical arm

of a bobbin carrier, guides at the lower end
of the arm, a weight slidingly engaged with
said guides, second guides at the top of the
arm, a latch slidingly engaged with the sec-
5 ond mentioned guides, a rod secured at its
upper end to the latch and depending there-
from, an upper and a lower bearing carried
by the arm to receive the rod, the upper
bearing being spaced from the second guides
10 and arranged to one side thereof, a coil
spring surrounding the rod and located be-
tween said bearings, and means to support

the lower end of said spring on the rod in
spaced relation to the lower bearing, the
upper end of the spring being disposed so 15
as to engage the upper bearing when the rod
is moved upwardly.

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

J. EDDY CHACE.

Witnesses:

ADA E. HAGERTY,
J. A. MILLER.