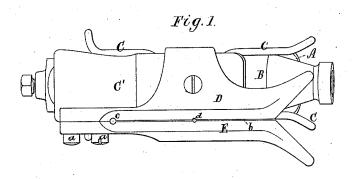
(No Model.)

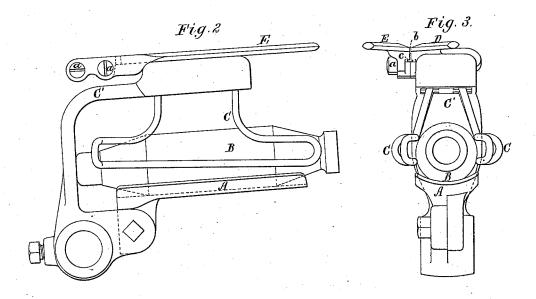
## B. SAUNDERS.

## BOBBIN HOLDER FOR SPOOLING MACHINES.

No. 306,109.

Patented Oct. 7, 1884.





Witnesses SN Piper ED Gratt Inventor.
Benjamin Saunders.
by R K Essy auty.

## UNITED STATES PATENT OFFICE.

BENJAMIN SAUNDERS, OF NASHUA, NEW HAMPSHIRE.

## BOBBIN-HOLDER FOR SPOOLING-MACHINES.

CPECIFICATION forming part of Letters Patent No. 306,109, dated October 7, 1884.

Application filed October 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN SAUNDERS, of Nashua, in the county of Hillsborough, of the State of New Hampshire, have invented a new and useful Improvement in Bobbin-Holders for Spooling-Machines; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which-

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a front end view, of a spooling-machine bobbin-holder provided with my invention, the nature of which is defined in

the claim hereinafter presented.

The bobbin-holder on which my improvement rests is what is well known among manufacturers as the "Wade Bobbin-Holder," it having been patented January 26, 1875, No. 159,053, by Asel M. Wade. It is exhibited in 20 the drawings as consisting not only of a shallow trough, A, upon which the loaded bobbin (represented at B) rests, but of two gravitating lips or jaws, C C, which are pivoted loosely to a carrier or bent arm, C', and ar-

25 ranged with such trough in manner as shown.

In carrying out my invention I combine with the said bobbin-holder means not only of guiding the yarn in its traverse lengthwise of the bobbin, but of removing from it bunches or enlargements or foreign matters objectionable to it in the weaving of the same. To this end there is fastened to the upper part of the arm C' a guide consisting of a member, D, formed as represented, and to such member

there is fixed by screws a a another such member, E, the two being arranged so as to have a narrow and long passage, b, between them,

such passage at one end being open, and at its opposite end opening into a hole, c, formed in both of the members, there being another 40 though smaller hole, d, in the member at or near their middles, as shown. The thread or yarn while being drawn from the bobbin extends from it upward into and through the slot, and in being so unwound traverses 45 through the slot longitudinally thereof, which is arranged over the bobbin lengthwise of it. The holes in the slot are for the purpose of clearing the guides of filamentous bunches or other accumulations removed from the thread 50 or yarn by the guides in its passage between

In this device the members D and E are arranged so as to form a guide having the passage or slot b. As the yarn runs up and down 55 this passage or slot, it pushes any accumula-tion therein before it. The thread does not enter the large hole, but near enough to push accumulations therein. The middle or smaller hole is designed to relieve the thread of any 60 small accumulations as such thread passes along, thereby preventing any chafing or adhesion of the thread. As the accumulations catch in these holes they may be removed.

What I claim is—

A bobbin-holder provided with a slotted guide having the hole d at or near its middle, and a larger hole, c, at one end, the said holes being for the purpose set forth.

BENJAMIN SAUNDERS.

Witnesses:

G. B. FRENCH, CHAS. W. HOITT.