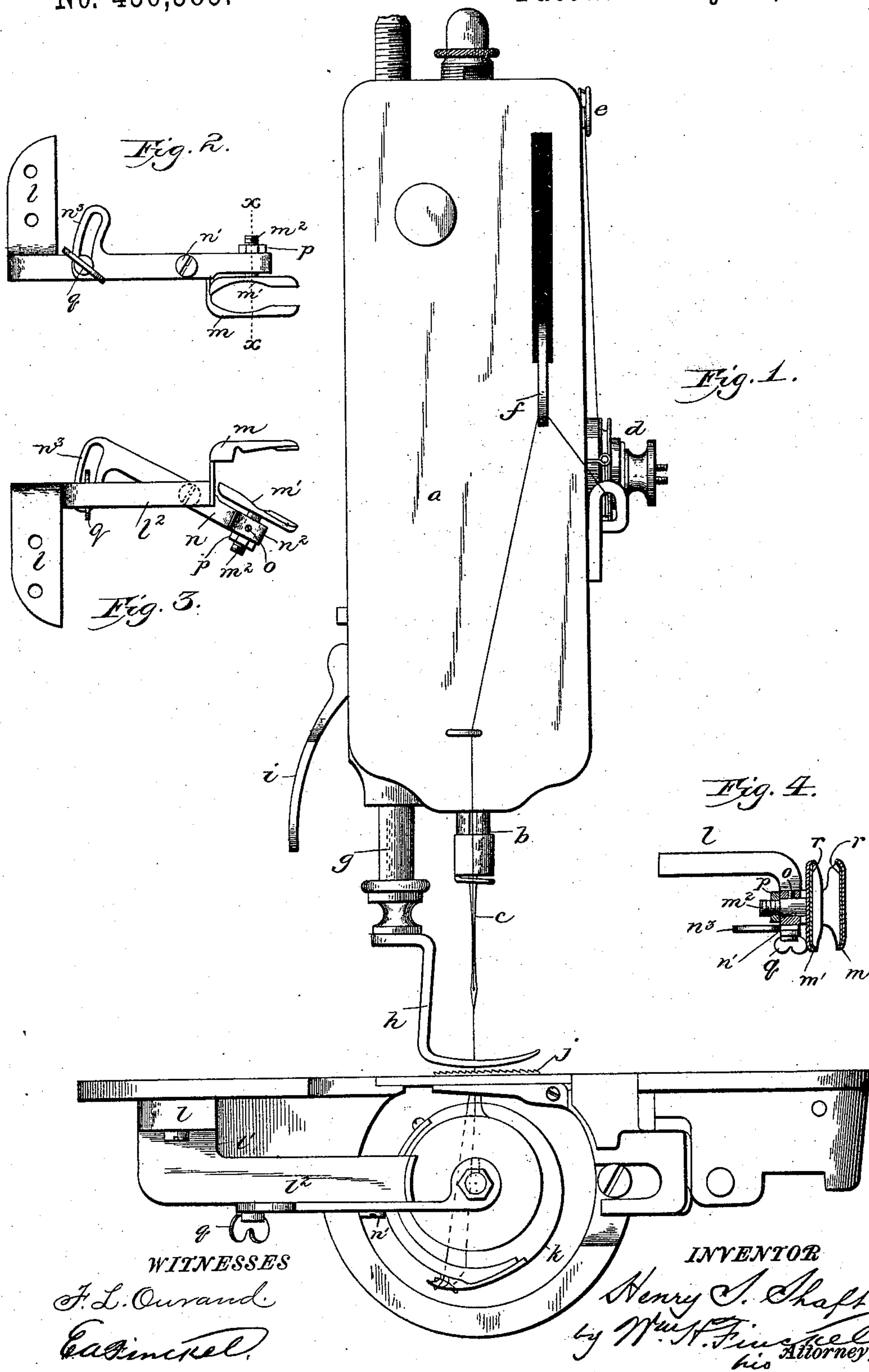


(No Model.)

H. S. SHAFT.
BOBBIN CASE HOLDER FOR SEWING MACHINES.

No. 456,385.

Patented July 21, 1891.



UNITED STATES PATENT OFFICE.

HENRY S. SHAFT, OF GLOVERSVILLE, NEW YORK, ASSIGNOR OF ONE-THIRD EACH TO JOHN W. RICKS AND HARLAN P. SHUTTS, BOTH OF SAME PLACE.

BOBBIN-CASE HOLDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 456,385, dated July 21, 1891.

Application filed April 27, 1891. Serial No. 390,643. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. SHAFT, a citizen of the United States, residing at Gloversville, in the county of Fulton and State of New York, have invented a certain new and useful Improvement in Bobbin or Spool-Case Holders for Sewing-Machines, of which the following is a full, clear, and exact description.

The object of this invention is to provide a readily-operable holder for the bobbin or spool used in that class of sewing-machines known as "rotary hook."

For convenience of description I have illustrated my invention in connection with the "Standard" sewing-machine modified by the application thereto of the rotary hook forming the subject of the application of John W. Ricks and Henry S. Shaft, filed September 25, 1890, Serial No. 366,170.

In those bobbin-holders or bobbin-case holders where the movable member of the holder is acted upon by a spring, the spring is not always reliable to hold the movable member in such relation to the bobbin-case as to keep it true and prevent chattering. So, also, pressure is not put upon the bobbin-case in proportion to the number of thread used in the machine. Now, my invention is designed to obviate both of these difficulties and to provide a bobbin or bobbin-case holder which may be readily operated to receive and discharge the bobbin-case.

I will proceed now to describe the principle of my invention and to point out the best mode in which I have contemplated applying that principle, and then will particularly point out and distinctly claim the part or improvement which I claim as my invention.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a front elevation of the head of a Standard sewing-machine with my invention and the hook of the Ricks and Shaft invention applied. Fig. 2 is a bottom plan view of the bobbin-holder detached, the parts being in position for containing the bobbin-case. Fig. 3 is a top plan view of the bobbin-holder, the movable member of which is open to receive or discharge a bobbin; and Fig. 4 is a section taken in the plane of line *x x*, Fig. 2.

The head *a*, having the needle-bar *b*, needle *c*, the various thread-guides, tensions *d* and *e*, and take-up *f*, the presser-bar *g*, presser-foot *h*, and a lifter *i*, and feed-dog *j*, and their moving parts may be as in the Standard sewing-machine.

On the main shaft is applied the rotary hook *k* of the Ricks and Shaft invention before mentioned, and I have shown in Fig. 1 the parts in position where the rotary hook is just about to discharge a needle-thread loop.

My holder is composed of a base *l*, which is pierced in order to permit the passage of fastening devices to secure the same to the under side of the bed-plate. A right-angled arm *l'* depends from this base, and another arm *l''* projects from the arm *l'* at right angles toward the main shaft. On one end of the arm *l''* is fixed a stationary half *m* of the bobbin or bobbin-case holder. The movable member *m'* is provided with a stem *m''*, and this stem is supported in a swinging arm *n*, which is pivoted at *n'* to the arm *l''*. The arm *n* is made with a hub *n''* to receive the stem *m''* of the member *m'*, and a set-screw *o* is passed into this hub to bear against the stem *m''* to hold the said stem and its attached member *m'* in adjusted position nearer to and farther from the fixed member *m*. For additional security I prefer to thread the outer end of the stem *m''* and apply thereto a nut or jam-nut *p*. The arm *n* has a slotted segment *n'''* at its outer end, and this segment is engaged by a butterfly or other screw *q*, tapped into the arm *l''* to hold the arm *n* in adjusted position. The members *m* and *m'* are lined internally with linings *r r*, of leather or other soft material, to prevent chattering and undue wear of the bobbin-case.

As already intimated, when it is desired to insert a bobbin-case and bobbin, the butterfly-screw *q* is loosened so as to permit the arm *n* with its attached movable member *m'* to be swung into the position shown in Fig. 3, and then when the case or bobbin has been placed between these two members the arm *n* is swung back into the position shown in Fig. 2 and the butterfly-screw turned up and the arm *n* thereby clamped to the arm *l''* and the parts secured.

In order to adjust the members *m* and *m'*

to the bobbin-case or bobbin, the screw *o* and nut *p* are loosened and the said member *m'* moved back or forth in its hub *n*² to the proper position, and then the screw *o* and nut *p* are made fast again. It will be seen thus that the disadvantages of a spring for holding the movable member on the bobbin or bobbin-case holder are obviated.

Obviously I do not limit my invention to its application to the Standard, or, in fact, any particular kind of machine; but, as already indicated, have selected this form of machine for illustration simply.

The principle of the adjustable and positively moved and locked bobbin-holder are applicable to bobbin-holders adapted for other forms of bobbins or bobbin-cases than those commonly used in the Standard and like machines.

What I claim is—

1. A bobbin or bobbin-case holder for sewing-machines, composed of an arm by which the holder may be secured to the machine-

bed, a fixed member on said arm, an arm pivoted to the first-named arm and provided with a hub, the movable half of the holder provided with a stem inserted in said hub, and means, substantially as described, for effecting the adjustment of the said stem and its member, and means to hold the movable member in proper relation to the fixed member, substantially as set forth.

2. A bobbin or bobbin-case holder for sewing-machines, consisting of an arm by which the holder may be attached to the sewing-machine bed, a fixed member attached thereto, and an independent movable member adjustably arranged in an arm pivoted to the first-named arm, substantially as described.

In testimony whereof I have hereunto set my hand this 24th day of April, A. D. 1891.

HENRY S. SHAFT.

Witnesses:

HALLOCK C. ALVORD,
WILLIAM C. WRIGHT.