

(No Model.)

J. TRIPP.
Take Up Eyelet.

No. 243,089.

Patented June 21, 1881.

Fig. 1.

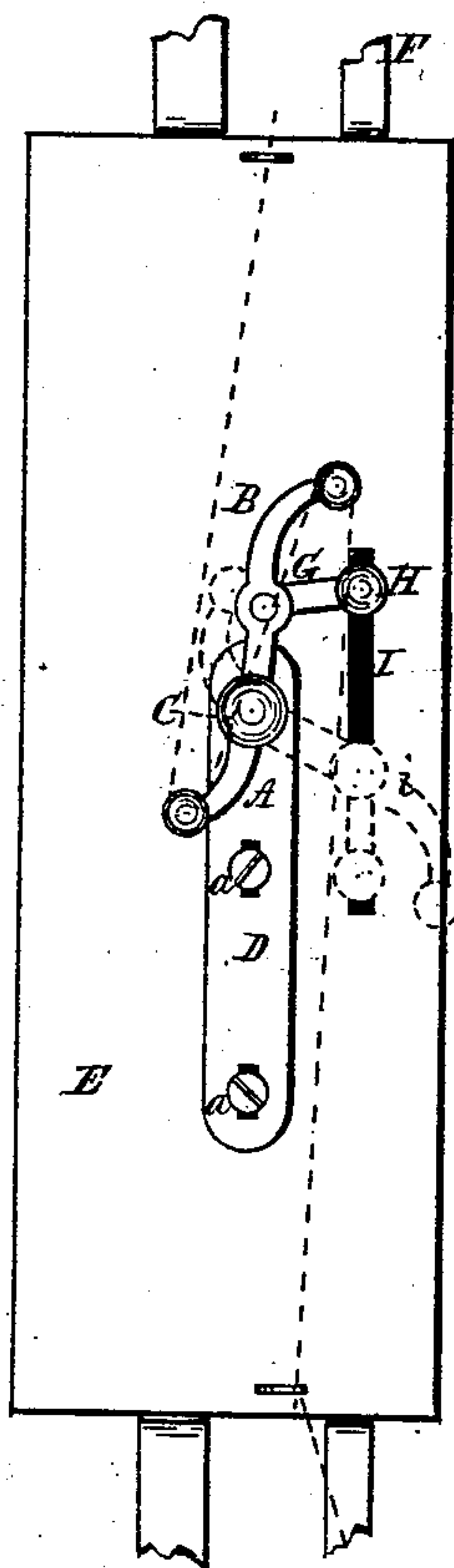


Fig. 2.

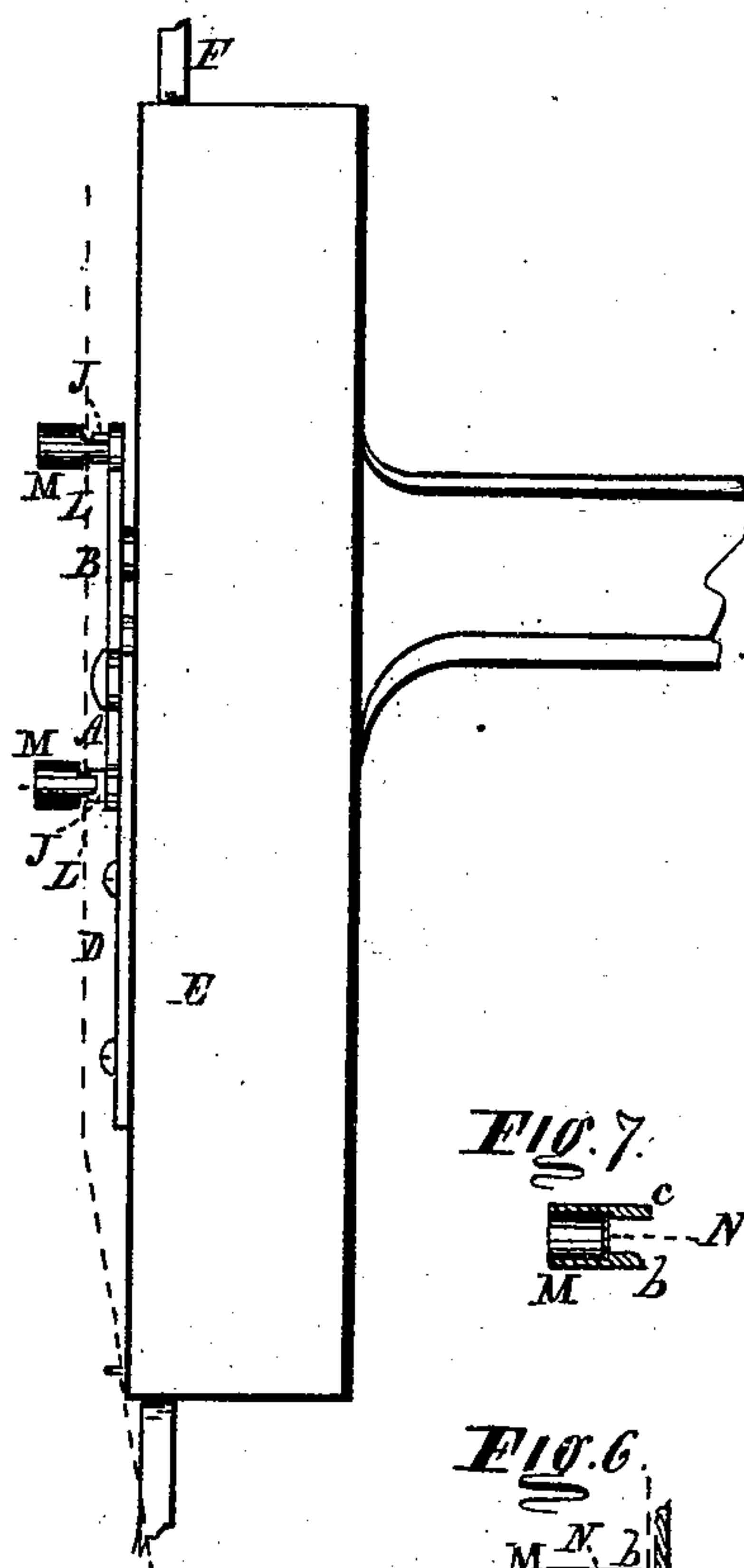


Fig. 7.

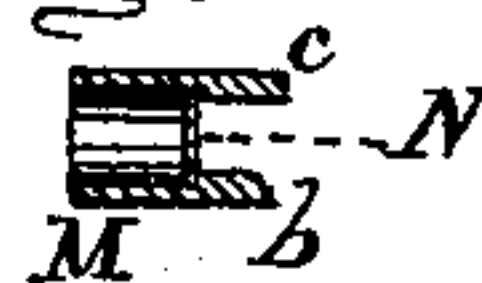


Fig. 6.

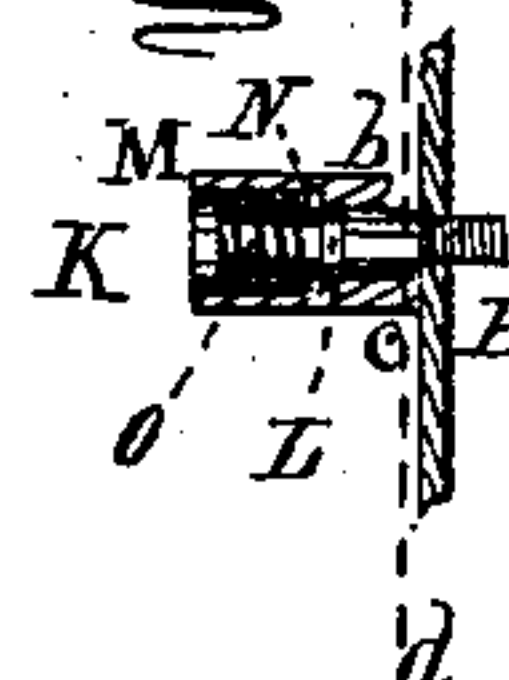


Fig. 3.

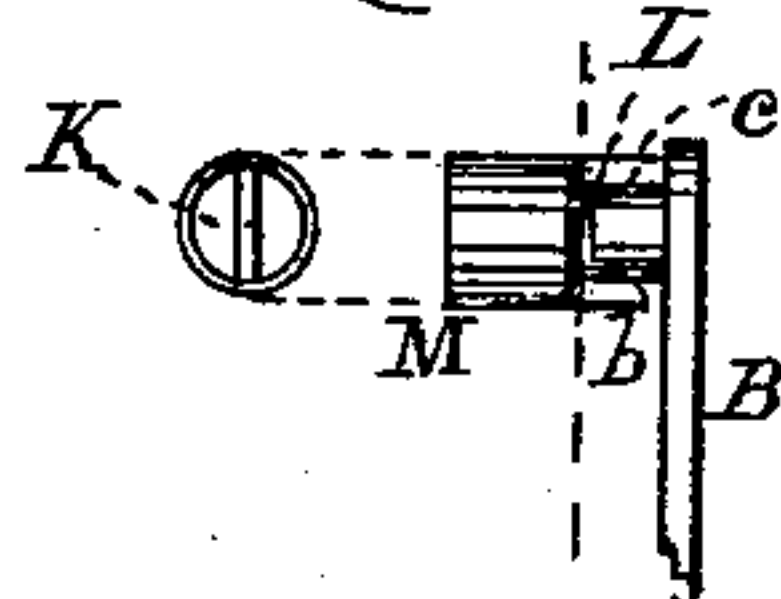


Fig. 4.

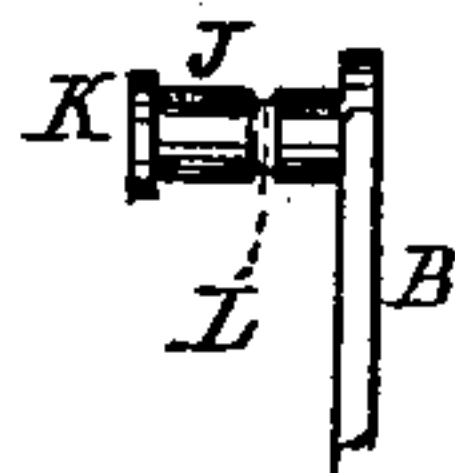
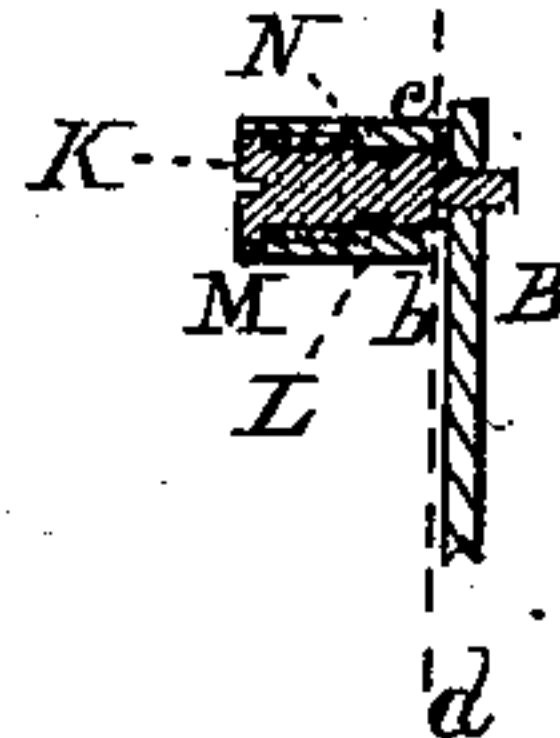


Fig. 5.



Witnesses.

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JAMES TRIPP, OF CLEVELAND, OHIO.

TAKE-UP EYELET.

SPECIFICATION forming part of Letters Patent No. 243,089, dated June 21, 1881.

Application filed September 21, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES TRIPP, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Sewing-Machines, of which the following is a description.

The nature of this invention relates to a device for taking up the needle-thread around that carried by the bobbin and drawing both tightly to the cloth, (said device is known by the trade as a "take-up,") the construction and operation of which are substantially as follows, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a front view or face of the machine having attached thereto the improved take-up. Fig. 2 is a side view of the same. Figs. 3 and 4 are detached sections enlarged. Fig. 5 is a transverse longitudinal sectional view of Fig. 3. Fig. 6 is a view of Fig. 3, partially in section. Fig. 7 is a detached section of said Fig. 3.

Like letters of reference refer to like parts in the several views presented.

The take-up above alluded to consists of one or more arms, A B, Fig. 1, pivoted at C to a plate, D, whereby to attach it to the face E of a machine by set-screws *a*. The arm B of the take-up is connected to the needle-bar F by a link, G, attached thereto by a pivotal pin, H, inserted in the slot I, in which the pin works reciprocally and conjointly with the needle-bar for vibrating the arms of the take-up.

In the extreme end of each of the arms A and B above referred to is secured a stud, J, Fig. 2, also shown enlarged in Fig. 4. The outer end of the stud is provided with a collar or head, K. The stud is also provided with an annular groove, L, the purpose of which will presently be shown. M is a sleeve fitting loosely on the stud, so that it will slide and rotate freely thereon.

It will be observed that the sleeve does not cover the entire length of the stud, but only so much thereof that is outside of the groove L, including the collar K, as seen in Figs. 5 and 6.

Projecting from the inner end of the sleeve are fingers *b* and *c*, forming a part of the sleeve and fitting closely to the stud and extending across the groove thereon.

It will also be observed that the finger *c* extends to the arm B, to which the stud is secured, whereas the finger *b* does not touch the arm, there being a space between the end of the finger and the arm, as shown in the drawings, in which it will be seen that both fingers extend across the groove.

The sleeve is prevented from coming off from the stud by the collar K and an annular shoulder, N, Figs. 5 and 7, on the inner surface of the sleeve. Between said shoulder and the collar K is coiled around the stud a spring, O, Fig. 6, the tension of which tends to force the sleeve onto the stud, thereby causing the finger *c* to impinge against the arm to which the stud is secured. On forcing the sleeve back from the arm the spring is compressed, the resiliency of which will force the sleeve again toward the arm, and in relation thereto, as shown in the drawings, in which it will be seen that both fingers extend across the groove L. On forcing the sleeve back from the arm B the short finger *b* will be drawn from over the groove, whereas the finger *c*, in consequence of its greater length, will continue across the groove.

Having described the construction of the take-up, the practical working of the same is as follows: The take-up above described is by the trade known as a "self-threader"—that is to say, the thread is not passed through holes and slots in connection with said holes, as is required to be done in many take-ups in use. This threading the ordinary take-up is often attended with much trouble in getting the thread through the holes, which in many cases are not convenient of access for that purpose; and, furthermore, the thread is sometimes cut by the edge of the holes, and, if not cut, it draws hard across the edge, causing the machine to run with more labor. These difficulties are wholly avoided by the take-up above described, and which is threaded by simply bringing the thread down upon the stud between the end of the finger *b* and the arm in which the stud is fixed, as indicated by the dotted line *d*; then by a slight side pressure, by drawing the thread against the end of the finger *b*, the sleeve thereby will be pushed outward until the said finger reaches the groove L. The thread will then slip from the end of

the finger into the groove, over which and the groove the finger will slide back by the reaction of the spring, and thereby hold the thread securely, but loosely, in the above-said groove. 5 The broken lines in Fig. 1 show the direction of the thread through the take-up while in practical use. The longer finger, *c*, in abutting against the arm, keeps the shorter from the said arm, so that the thread can be readily 10 placed between them for the purpose above specified.

The vibratory movement of the arms of the take-up and the effective operation of the thread are substantially the same as take-ups 15 in ordinary use, and for the same purpose.

The position of the take-up, as shown in Fig. 1, is such as when the arm B is at its highest point and has drawn the thread into the cloth, together with that carried by the bobbin. The 20 position of the take-up, as indicated by the dotted lines *i*, is when the arm B is at its lowest point and the needle-thread loosened into a loop for the shuttle to pass through.

It will be observed that the shoulder of the 25 sleeve, between the junction of the fingers therewith, is flush with the outer edge of the groove. The effect of the said shoulder upon the thread near the groove is to crowd it toward the arm to which the stud is secured, and thereby prevent the thread from becoming entangled over 30 the end of the sleeve and stud.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the stud J, provided with a collar and groove, a sleeve partially in- 35 closing said stud, and having fingers *b* and *c* projecting therefrom in alignment with the stud and across the annular groove, substantially as described, and for the purpose set forth.

2. In combination with the collared grooved 40 stud and sleeve M, having an internal annular shoulder, N, a spring arranged between said collar and shoulder, substantially as and for the purpose specified.

3. In combination with the grooved stud, 45 the sleeve provided with fingers *b* *c*, and having between said fingers, at their junction with the sleeve, a shoulder or shoulders, as and for the purpose set forth.

4. In take-ups for sewing-machines, with the 50 collared grooved stud and arms, the combination of the fingered sleeve and spring, substantially as described, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES TRIPP.

Witnesses:

J. H. BURRIDGE,
J. H. LAPHAM.