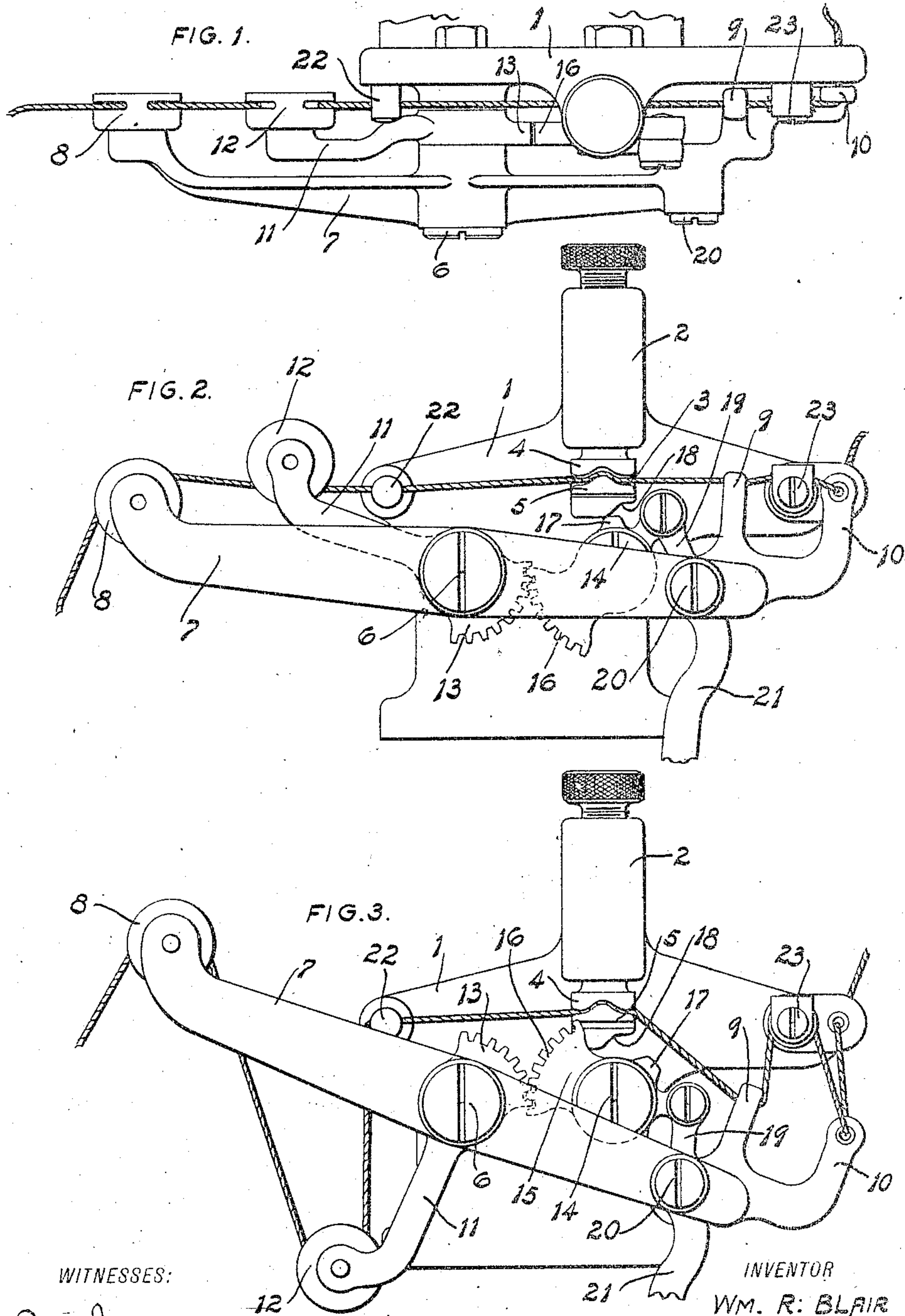


W. R. BLAIR.
 THREAD TAKE-UP FOR SEWING MACHINES.
 APPLICATION FILED JUNE 24, 1910.

978,832.

Patented Dec. 20, 1910.



WITNESSES:

Wm. Janus.
F. M. Harrington.

INVENTOR

WM. R. BLAIR

BY

F. R. Corinvaes.
 ATTORNEY

REISSUED

UNITED STATES PATENT OFFICE.

WILLIAM R. BLAIR, OF ST. LOUIS, MISSOURI, ASSIGNOR TO LANDIS MACHINE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

THREAD TAKE-UP FOR SEWING-MACHINES.

978,832

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed June 24, 1910. Serial No. 568,732

To all whom it may concern:

Be it known that I, WILLIAM R. BLAIR, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain
5 new and useful Improvement in Thread Take-Ups for Sewing-Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use
10 the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of my improved take-up. Fig. 2 is a side elevational view.
15 Fig. 3 is an elevational view similar to Fig. 2, but showing the parts of the device in another position.

This invention relates to a new and improved form of take-up device, and is particularly adapted to be used in connection
20 with wax thread sewing machines of the well known type, and illustrated in the patent to Campbell No. 374,936, December 20, 1887.

25 My improved device consists of two co-operating arms to perform the take-up action, and a thread clamping device all of which are operated from the same means.

My invention consists in the details of
30 this operating means as will be pointed out in the accompanying claims.

In the accompanying drawings 1 indicates a bracket to be mounted on the overhanging arm of the ordinary wax thread
35 type of sewing machines. On this bracket is a recessed boss within which is mounted the thread clamping device 3 consisting of two jaws 4 and 5, which are operated to clamp the thread therebetween. This tension or clamp is more fully described in my
40 application filed concurrently herewith. On a stud 6 is pivotally mounted the thread lever 7 having a thread engaging roll 8 at one end and thread engaging arms 9 and 10 at the other. Pivoted on this same stud 6
45 is the take-up lever 11 with thread roll 12 at one end, and a segmental gear 13 at the opposite end. On an adjacent stud 14 is mounted a combined segmental gear and
50 cam 15 having teeth 16 which intermesh with the teeth on the gear 13. At one side of this device 15 is mounted a cam lug 17 which co-acts with a cam surface 18 on the lower end of the jaw 4 in order that in the
55 movement of the part 17 the jaw 4 may be

raised from its contact with the jaw 5. The member 15 is connected by means of a link 19 to a pivot stud 20 on the thread lever 7. Connected with this same stud 20 is an operating link 21 operatively connected to the
60 main shaft of the machine in the well known manner. The thread leads over the roll 8 and under the roll 12 through an eye 22 on the bracket 1 between the jaws 4 and 5 of the thread clamp through the arm 9 and over
65 the guide roll 23 fastened on the bracket 1, through the arm 10 to the wax pot.

The operation of my device is clear from the showing in Figs. 2 and 3. As the link 21 is moved down by the operating means
70 the opposite end of the thread lever 7 is moved up, and the lever 11 is moved down through the segmental gearing 13 and 16, and link connection 19 to the stud 20. Simultaneously the cam lug 17 is removed
75 from the cam surface 18 on the jaw 4 to allow the said jaw to be moved down by spring pressure to clamp the thread between the jaws 4 and 5. Also at this time the arms
80 9 and 10 are moved down on either side of the guide roll 23 to draw the thread through the wax pot.

The essential features of my invention are the mounting of the thread, and take-up
85 levers on the same pivot stud, and also having a set of segmental gears to actuate the take-up lever.

I am aware that minor changes in the construction, arrangement and combination of the various parts of my improved device can
90 be made and substituted for those herein shown and described without departing from the nature and spirit of my invention, the scope of which is indicated in the accompanying claims.
95

I claim:

1. A take-up device, comprising a thread clamp, a lever with a thread engaging part at each end, means for operating the same, an auxiliary lever, and means connecting
100 the two levers, whereby the auxiliary lever is operated in conjunction with the first lever, and having a portion adapted to operate the thread clamp.

2. A take-up device, comprising a pivoted
105 lever, a second lever mounted on the same pivot as the first lever, and a gear connection between the two levers, whereby both levers may be actuated from the same means.
110

3. A take-up device, comprising a lever with a thread engaging part, a second lever actuated from the first lever, a tension device, and means connected to the operating
5 means for the second lever for actuating the tension device.

4. A take-up device comprising a lever with a thread engaging part, a second lever with a thread engaging part having a seg-
10 mental gear attached, an independently mounted gear meshing with said segmental gear, and a link connecting the latter gear with the first mentioned lever.

5. A take-up device comprising a lever
15 with a thread engaging part, a second lever

with a thread engaging part having a segmental gear attached, an independently mounted gear meshing with said segmental gear, a thread clamp, means for operating said independently mounted gear, having a
20 projection adapted to engage and operate the thread clamp.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 21st day of June, 1910.

WILLIAM R. BLAIR.

Witnesses:

M. P. SMITH,
J. W. CLIFT.