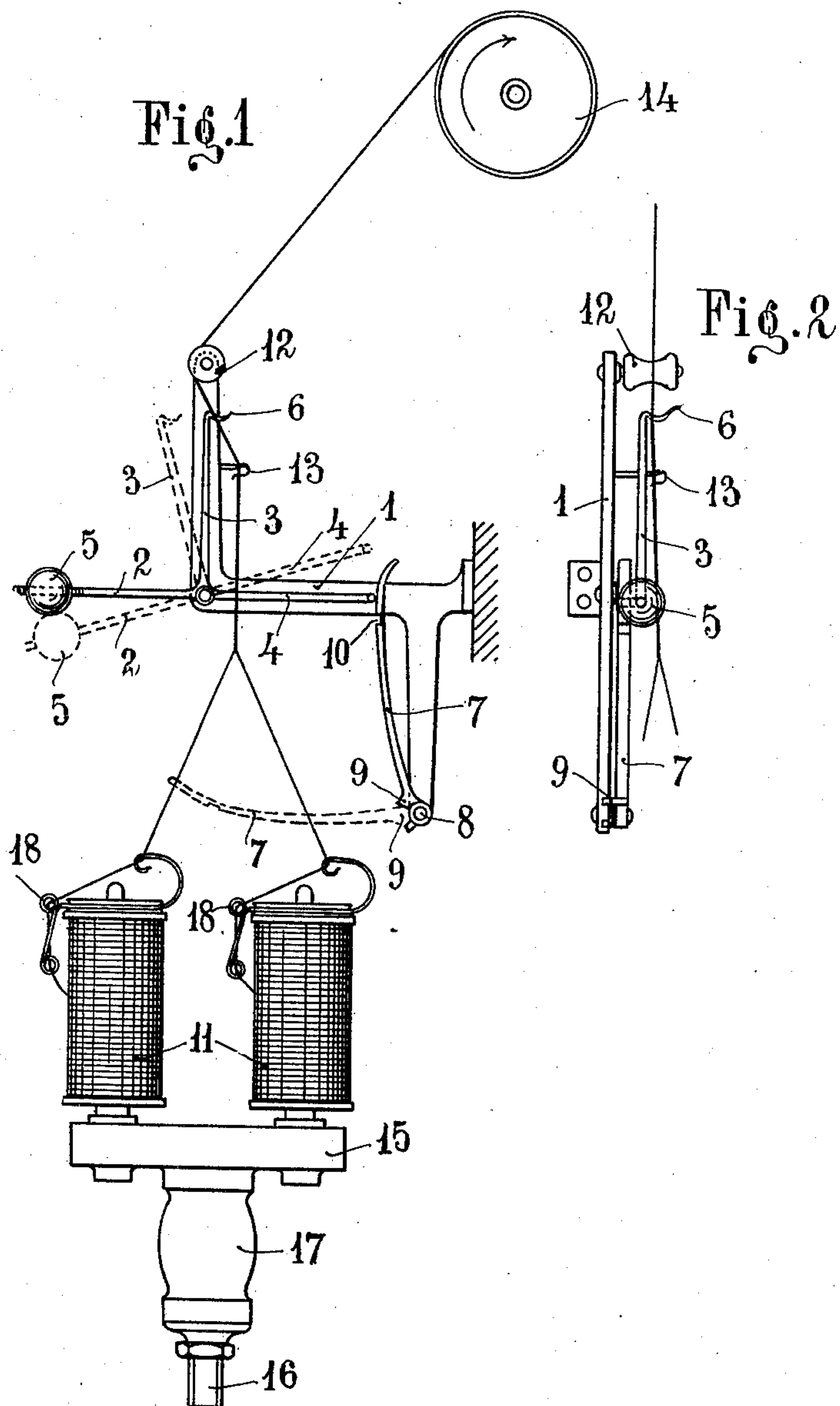


P. SARACCO.  
STOPPING DEVICE FOR SILK DOUBLING MACHINES.  
APPLICATION FILED SEPT. 1, 1909.

976,499.

Patented Nov. 22, 1910.



Witnesses  
C. Schallinger  
R. L. H. H. H.

INVENTOR  
Pietro Saracco  
BY B. Singer  
Att'y



# UNITED STATES PATENT OFFICE.

PIETRO SARACCO, OF SALUZZO, ITALY.

STOPPING DEVICE FOR SILK-DOUBLING MACHINES.

976,499.

Specification of Letters Patent. Patented Nov. 22, 1910.

Application filed September 1, 1909. Serial No. 515,709.

*To all whom it may concern:*

Be it known that I, PIETRO SARACCO, a subject of the King of Italy, residing at Saluzzo, in Italy, have invented a certain new and useful Stopping Device for Silk-Doubling Machines, of which the following is a specification.

This invention relates to a thread breaking device applicable to a type of apparatus for preparing throwing silk that is exemplified in the patent application Ser. No. 478,810 and it has for its object to provide for the breaking of one of the two threads when the other has accidentally been broken.

The arrangement according to this invention has been devised for the type of apparatus referred to, for as the axes of the bobbins turn around an intermediary axis, the systems ordinarily adopted for breaking a thread when the other is broken would not be applicable.

On the annexed drawing is shown diagrammatically one form of carrying out the invention, by way of example.

Figure 1 is a side view of a small apparatus according to the specification above referred to, provided with the device according to this invention; Fig. 2 is a rear view of the device itself.

As seen in Fig. 1, the device consists of a lever pivoted to a support 1 and having three arms 2, 3, and 4, the first of which carries a weight 5 capable of adjustment on the said arm 2. The arm 3 carries a support 6, of porcelain, or other suitable material, while the arm 4 normally rests with its hooked end against a rod 7 pivoted at 8 on the support 1 and provided, if necessary, with small teeth on its surface. This rod 7 has a stop 9 which, abutting against a corresponding projection on the support 1, prevents the rod 7 from descending below the position shown in dotted lines. The said rod has in addition a notch 10 in which the end of the arm 4 can engage so as to retain it in a certain position. On the support 1 is also mounted the small wheel or pulley 12 as well as the hook 13 for guiding the thread.

The device is mounted on the apparatus in such a manner that the thread, doubled and twisted, enters the hook 13, passes over the support 6 and the wheel 12 in order to be wound on the bobbin 14. By adjusting the position of the weight 5 on the arm 2, the tension of the thread may be so regulated as to maintain the support 6, and con-

sequently the three-armed lever, in the position shown in full lines in Fig. 1.

During the normal working of the apparatus the casing 15 of which, pivoted on the support 16, revolves, driven by a belt on the pulley 17, the doubled and twisted thread as it winds on the bobbin 14 has a tension equal to twice that of thread coming from the two revolving bobbins 11 and traversing the device 18 for keeping the elementary threads stretched so that the support 6 bearing on the thread itself can sustain the weight 5 suitably adjusted on the arm 2. When, however, one of the elementary threads break, the tension of the doubled and twisted thread is reduced by one half and it can no longer sustain the support 6 which under the action of the weight 5 assumes the position shown in dotted lines in Fig. 1. Then the arm 4 of the lever leaves the rod 7, which by its own weight falls into the position shown in dotted lines. The casing 15 and consequently the axes of the bobbins 11 continuing to revolve, the thread which is not broken will now be broken on striking the rod 7.

From what has been said, it will be understood that the device forming the subject of the present application serves to break a thread coming from the bobbins 11 when the other thread is broken.

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

1. A stopping device for silk doubling machines, comprising in combination, unwinding bobbins, a revolving mounting for said bobbins having an axis out of alignment with the axes of said bobbins, a winding bobbin for receiving the doubled thread composed of the single threads of said bobbins, a thread breaking device arranged to fall by gravity into the path of the single threads, and means engaging and controlled by the tension of the threads for holding said breaking device in an inoperative position when the single threads are intact and serving upon breakage of one of said threads to release said device, substantially as and for the purpose set forth.

2. A stopping device for silk doubling machines comprising in combination, unwinding bobbins, a revolving mounting for said bobbins having an axis located between the axes and said bobbins, a winding bobbin for receiving the doubled threads composed



of the single threads of said bobbins, a pivotally mounted gravity acting thread breaking device arranged to fall into the path of the single threads, and a pivoted device  
5 engaging and controlled by the tension of said threads for holding said device in an inoperative position when the single threads are intact and serving upon breakage of one of said single threads to release said device,  
10 substantially as and for the purpose set forth.

3. A stopping device for silk doubling machines comprising in combination, two unwinding bobbins, a revolving mounting  
15 for said bobbins having its axis of rotation disposed between the axes of said unwinding bobbins, a winding bobbin for receiving the doubled threads composed of the single

threads of said bobbins, a thread breaking device pivotally mounted to fall by gravity  
20 into the path of said single threads, and a pivotally mounted trip member provided with an arm engaging the threads and having an arm for holding said breaking device in an inoperative position, and a weight for  
25 said member serving to release engagement thereof with said breaking device upon breakage of one of said single threads, substantially as and for the purpose set forth.

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

PIETRO SARACCO.

Witnesses:

SCEENDO CORTA,  
INGLARTO CORTA.