

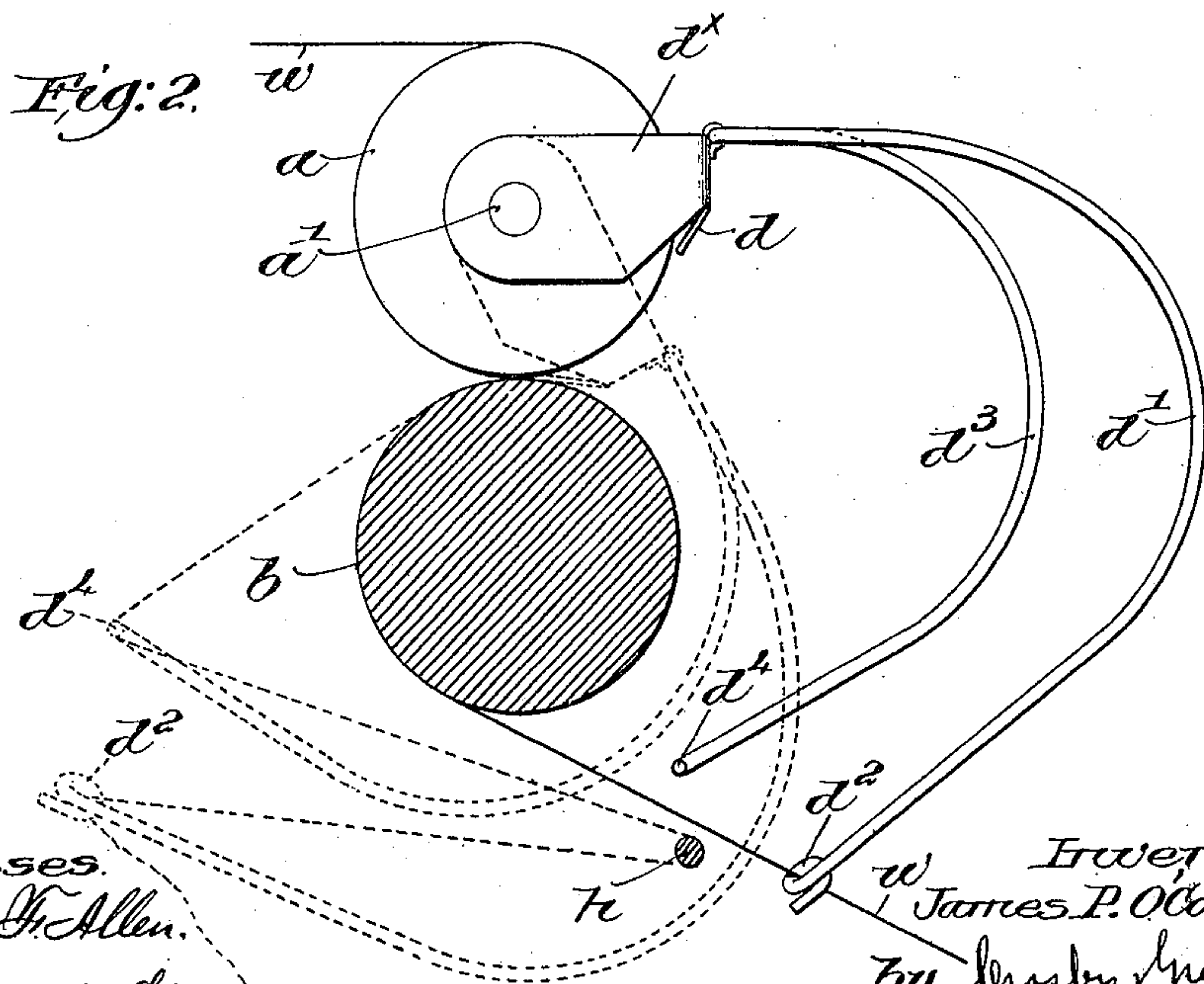
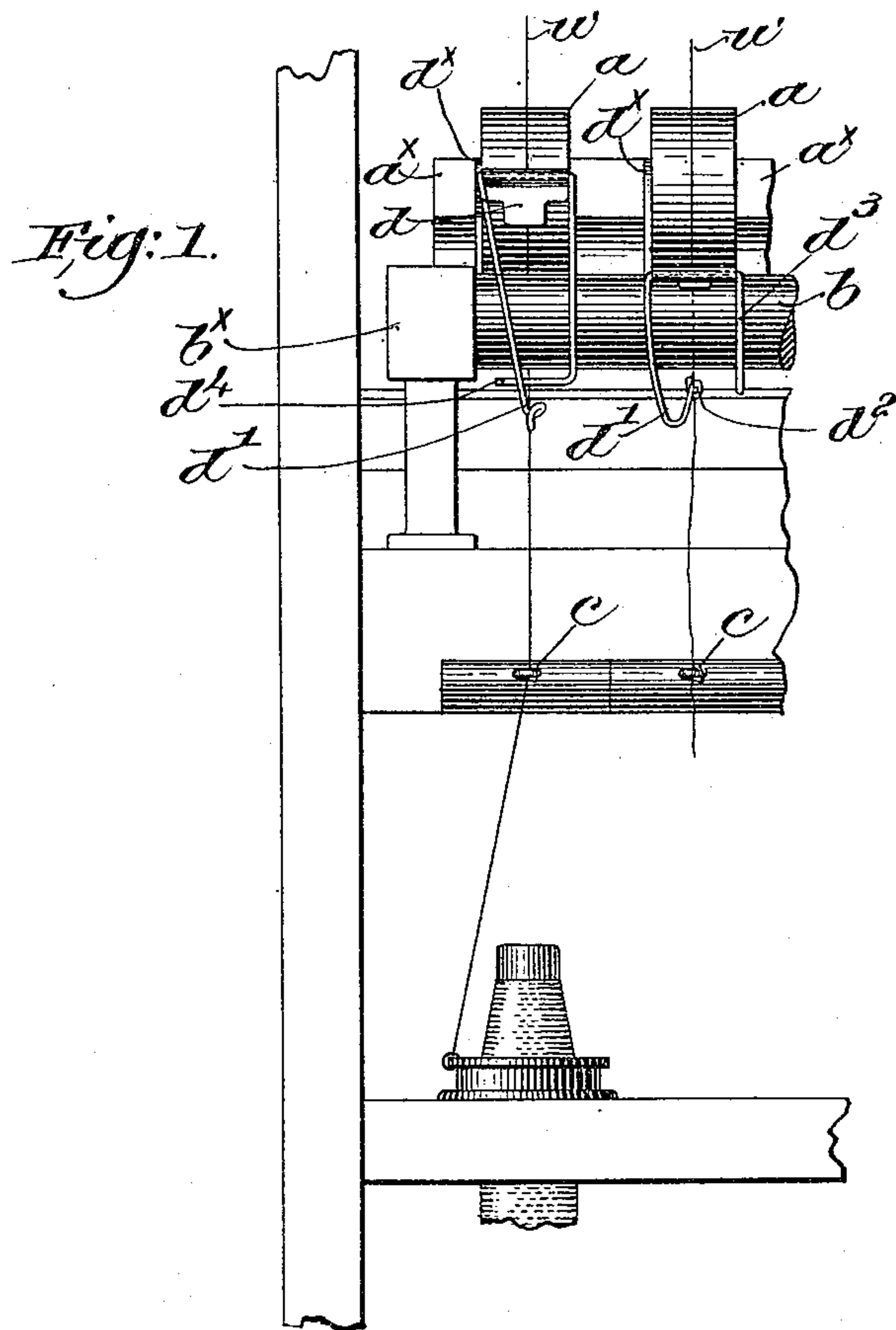
No. 616,850.

Patented Dec. 27, 1898.

J. P. O'CONNELL.
TWISTER STOP MOTION.

(Application filed May 14, 1898.)

(No Model.)



Witnesses.
Edward F. Allen.
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UNITED STATES PATENT OFFICE.

JAMES P. O'CONNELL, OF WARWICK, RHODE ISLAND, ASSIGNOR TO THE
DRAPER COMPANY, OF PORTLAND, MAINE, AND HOPEDALE, MASSA-
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TWISTER STOP-MOTION.

SPECIFICATION forming part of Letters Patent No. 616,850, dated December 27, 1898.

Application filed May 14, 1898. Serial No. 680,680. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. O'CONNELL, of Warwick, in the county of Kent and State of Rhode Island, have invented an Improve-
5 ment in Twister Stop-Motions, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention relates to twister stop-motions wherein the holder is mounted on the axis of the top roll and is provided with a tongue which is permitted to feed in between the rolls and stop rotation of the top roll
15 when the leg drops, due to a broken end. Such devices serve to stop the delivery of the end, but it sometimes happens that the end is so long that it can catch around an adjoining thread or even be caught by the adjoining
20 roll in some manner; and this invention has for its object the production of means for so taking up the slack of the loose end when a thread breaks that it cannot be caught by another thread or by the adjoining mechanism.

25 Figure 1 is a partial front elevation of a twisting-machine with my invention applied thereto; and Fig. 2 is an enlarged view of the device, showing its mode of operation when a thread breaks.

30 The top and bottom rolls a b , mounted in suitable bearings a^x b^x , Fig. 1, the pig-tail c for the thread w , the metal-holder d^x , mounted on the axis a' of the top roll, and the tongue d may be and are of usual construction.

35 Instead of the usual single wire leg attached to the holder and provided with a guide-eye for the thread I provide a branched or bifurcated leg the parts of which act upon the thread at opposite sides of an independent
40 fixed stop attached to the twister-frame.

Referring to the drawings, a rod or wire h is extended across the twister-frame below and slightly in front of the bottom roll b and held fixedly in place, the thread w passing
45 between the bottom roll and the rod or stop h , but not touching the latter under normal conditions.

I have herein shown the wire leg d' provided with a guide-eye d^2 for the thread as

continued and bent down at d^3 , with its lower 50
end bent laterally at d^4 in front of the thread to form a foot, the foot and guide-eye being above and below the rod h , respectively. When a thread breaks, the leg drops into dotted-line position, Fig. 2, the tongue feed- 55
ing in between the rolls and stopping rotation of the top roll, and if the end is short the foot d^4 is not called into action. Should the end be a long one, however, the foot d^4 of the branch engages the thread at one side of 60
the rod h and the eye d^2 of the leg d' engages it at the other side, and by the movement of the foot and eye past the fixed stop h at opposite sides thereof the thread is bent several times, as shown in Fig. 2 by dotted lines, 65
so that all of the slack of the end is taken up and it cannot be caught by any of the adjoining parts of the mechanism or by an adjoining thread. The branched or bifurcated leg, cooperating with the fixed rod h , acts as 70
a slack-take-up for the loose end. Inasmuch as the thread does not contact with either the foot d^4 or the stop h under normal conditions no additional friction or strain is put upon the thread by my invention. 75

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a twisting-machine, stop-motion mechanism including a branched leg, and a 80
coöperating fixed stop below the normal path of the thread, the branched leg engaging the loose thread end at opposite sides of said stop and drawing the thread around the stop, to take up the slack of the end upon breakage 85
of the thread, substantially as described.

2. In a twister stop-motion, a depending branched leg having a thread-guide, and a foot normally out of contact with the thread, and a fixed stop below the thread, movement 90
of said guide and foot upon breakage of the thread engaging the loose end at opposite sides of and carrying it around and past the stop in a double loop, to thereby take up the slack of the loose end, substantially as described. 95

3. In a twister stop-motion, a pivotally-mounted holder provided with a tongue, and an attached leg having a thread-eye and a

foot, combined with a fixed stop located between the paths of movement of said eye and foot, whereby upon breakage of the thread the loose end thereof will be bent around the
5 stop by the action of the eye and foot, to take up the slack of the loose end, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES P. O'CONNELL.

Witnesses:

GEORGE E. SHEARN,
ANN E. TIBBITTS.