

(No Model.)

J. WOLF, Jr.

TAKE-UP FOR CONDUCTORS OF CLOTH CUTTING MACHINES.

No. 527,354.

Patented Oct. 9, 1894.

Fig. 1.

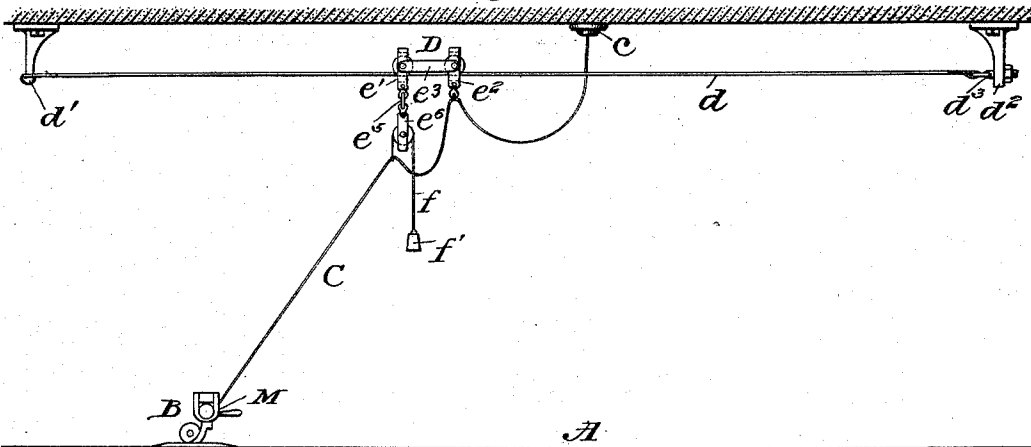


Fig. 2.

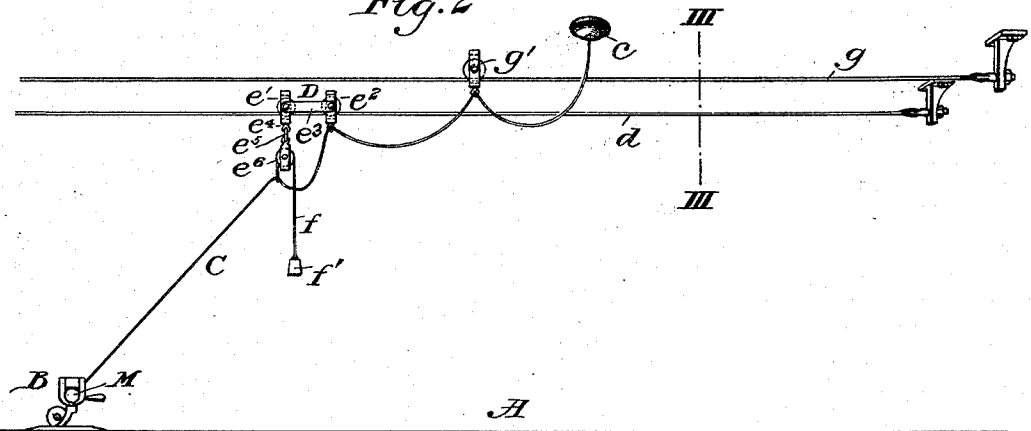


Fig. 3.

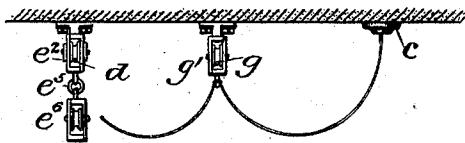
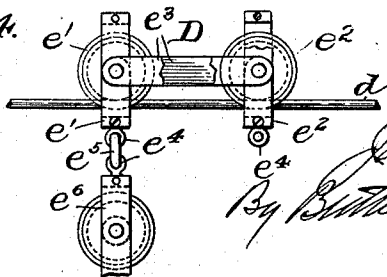


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## TAKE-UP FOR CONDUCTORS OF CLOTH-CUTTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 527,354, dated October 9, 1894.

Application filed May 31, 1894. Serial No. 513,005. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WOLF, Jr., a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Take-Ups for Conductors of Cloth-Cutting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices for taking up the slack in a flexible conductor, but particularly the slack in electrical wires used in connection with electrically operated cloth-cutting instruments or similar machines wherein the cutting mechanism is impelled by a current derived through a flexible conductor connecting with a source of electrical energy or power.

Primarily the object of my invention is to provide a simple, effective and inexpensive device which may be readily applied to advantage in establishments employing a large number of tables arranged upon the floor of a room of considerable size for the purpose of keeping a lengthy wire from becoming entangled with the tables or interfering with the work of the operatives.

A further object is to dispense with the necessity of a separate wire for each table, and the extra expense incident thereto, and at the same time to provide means whereby a wire or conductor of considerable length may be employed, by taking up the slack when not required for use and sustained in an elevated position out of the way of the operatives; but so as to be easily drawn upon or paid out when desired, whereby the operator of a machine connecting with a single wire or conductor may readily move such machine from table to table without the necessity for separate wires for each table and without interfering with the work of other operatives in different parts of the room.

With these objects in view the invention consists in the construction and combination of the parts as will be more fully hereinafter set forth and then defined in the claims at the end of the description.

Referring to the accompanying drawings

forming a part of this specification, Figure 1 is a side elevation of the take-up supported from the ceiling of a room and connected to the conductor leading to the cutting machine. Fig. 2 is a perspective view of a slightly modified form of take-up. Fig. 3 is a transverse section on the line III—III of Fig. 2, with the conductor broken away; and Fig. 4 is a side elevation, partly broken away, of the traveling carriage and the support therefor.

In the drawings A may denote the upper surface of a cutting table upon which is placed a cloth-cutting machine B of any suitable construction, but preferably of the type patented by myself, No. 505,690, of September 26, 1893, in which is employed an electric motor M for driving the cutter and which is connected to an electric supply by means of the wires of the conductor C, which I preferably connect to a rosette c arranged upon the ceiling.

The wires of the conductor are properly insulated and of sufficient length to permit the machine to be moved back and forth on the table, or from one table to another.

To permit a wire of considerable length to be used and to prevent the wire from dropping upon the floor or tables, which would seriously interfere with the operations of the workmen, I provide a take-up carriage D arranged to travel upon a track *d*. This track is preferably a flexible metallic wire supported by the brackets or hangers *d'*, *d''*, depending from the ceiling, as shown, or which may be secured to the side walls or to a frame-work as desired. At one end of the track a loop is formed to engage the hooked end of the bracket *d'*, while the opposite end is secured to an adjusting bolt *d<sup>3</sup>* arranged in the end of the bracket *d''*, and by which the wire track is made taut, the loop at the opposite end of the wire serving to allow the track to be readily applied to or removed from the hangers.

The carriage D is provided with sheaves or pulley-wheels *e*, journaled in suitable shells or frames *e'*, *e''* secured together by the bars *e<sup>3</sup>*, *e<sup>3</sup>* arranged on opposite sides of said frames. These frames are preferably made in two pieces secured together at their upper and lower ends by screws, or their equivalents,

and provided with an eye  $e^4$  for the purpose, as will presently appear.

Depending from the frame  $e'$  and secured thereto by the ring  $e^5$  passing through the eyes of said frames, is a frame  $e^6$  carrying a sheave over which passes a rope or cord  $f$  secured at one of its ends to the conductor C and at its other end having a weight  $f'$  secured thereto for the purpose of yieldingly holding the said conductor in an elevated position.

The conductor C or other flexible body is secured in any proper manner to the eye of the frame  $e^2$ , sufficient slack being given between this point and the rosette  $c$  and between this point and the point where the rope  $f$  is secured to permit the carriage to travel along the track and to permit further movement of the cutting machine independent of the travel of said carriage.

The operation of the machine will be readily understood from the foregoing description. It will be seen that as the carriage travels from the rosette it will take up the slack between same and the rosette, while the yielding connection between one end of the carriage and the other will permit the machine to be moved a considerable distance beyond the travel of said carriage, both the positive and yielding connection of the carriage serving to give sufficient movement to the cutter, and at the same time preventing the conductor from interfering with the operatives.

Where the ceilings are low and the rooms are very long, I provide an auxiliary track  $g$  arranged by the track  $d$ , as shown in Figs. 2 and 3, the rosette being placed a sufficient distance away to permit this.

Upon the track  $g$  is a frame or carriage  $g'$  similar to the frames of the carriage D, provided with an eye to which is secured the conductor, such arrangement serving to elevate the slack in the conductor between the carriage D and the rosette, thus permitting further movement of the carriage without having the slack interfere with the operatives. Instead, however, of securing the conductor to the frame  $g'$ , I may provide a yielding connection to the conductor similar to the connection between the fore end of the carriage D and said conductor.

It is obvious that I might vary the number of tracks, take-ups and yielding connections, or that I might provide an adjusting bolt in each hanger for securing and tightening the wire track, if so desired.

It will be understood, of course, that the invention is not limited to any particular type

or class of machines, as it may be used in connection with any other movable body, such as a movable gas or electric lamp. I may make other changes substantially the same as disclosed without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a take-up device, the combination with a flexible conductor connected to a movable body, of a track and a support therefor, a carriage adapted to travel along said track, and a yielding connection between the carriage and the flexible conductor, substantially as described.

2. In a take-up device, the combination with a flexible conductor connected to a movable body, of a track and a support therefor, a carriage adapted to travel along said track and having the conductor secured to one end, together with a yielding connection between the other end of the carriage and said conductor, substantially as described.

3. In a take-up device, the combination with a flexible conductor, of a series of tracks and supports therefor, a carriage adapted to travel along each track arranged to hold the conductor in an elevated position; the said conductor being secured to one carriage and then to one of the ends of a second carriage and having a yielding connection between the other end of said second carriage and said conductor, substantially as described.

4. In combination with the cutting machine, the electric motor mounted thereon, and the flexible electric conductor extending from said motor to a source of electric supply, of a track and a support therefor, a carriage adapted to travel along said track, together with a yielding connection between the carriage and the conductor, substantially as described.

5. The combination with a flexible conductor connected to a movable body, the traveling carriage and a track and a support therefor, of a frame carrying a sheave depending from the carriage, and a rope passing over the sheave and secured at one of its ends to the conductor, and carrying a weight at its other end, substantially as described.

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

JOHN WOLF, JR.

Witnesses:

DAVID WERTHEIM,  
JOS. H. LITTELL.