

[54] **CREEL FOR TEXTILE MACHINES**

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[56]

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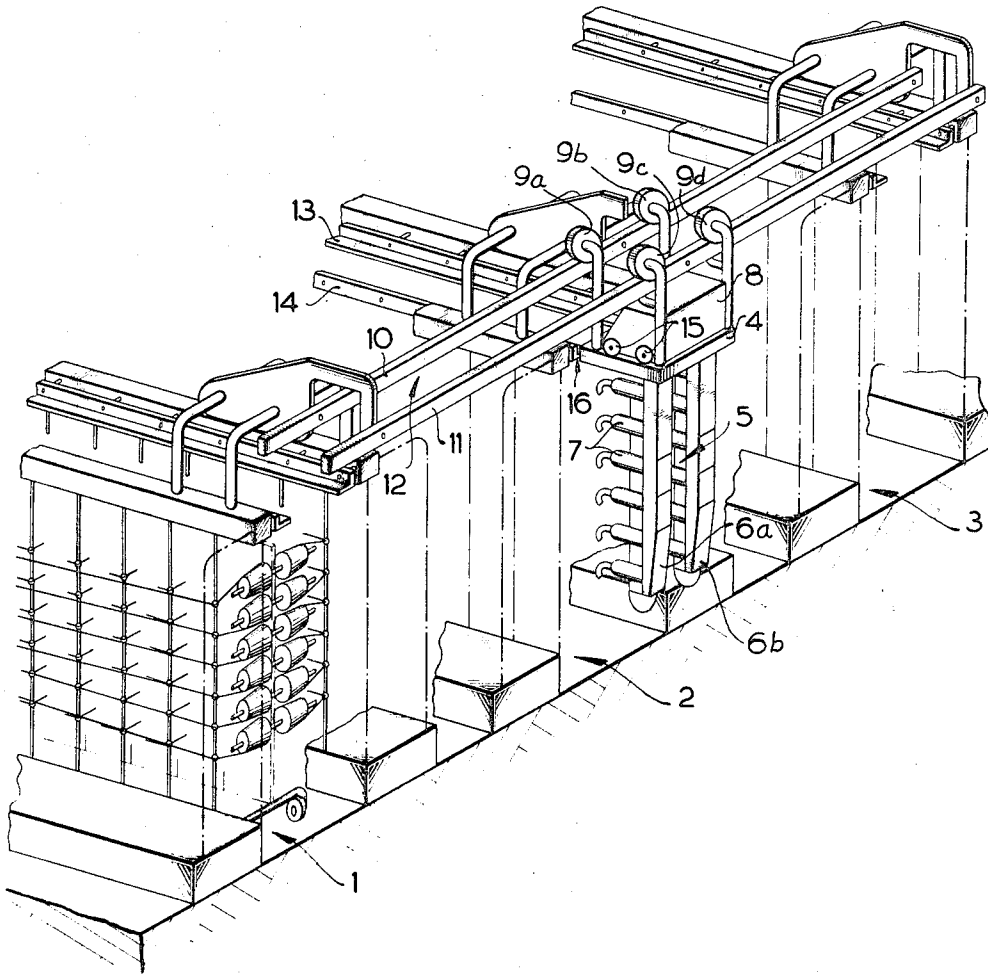
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ABSTRACT

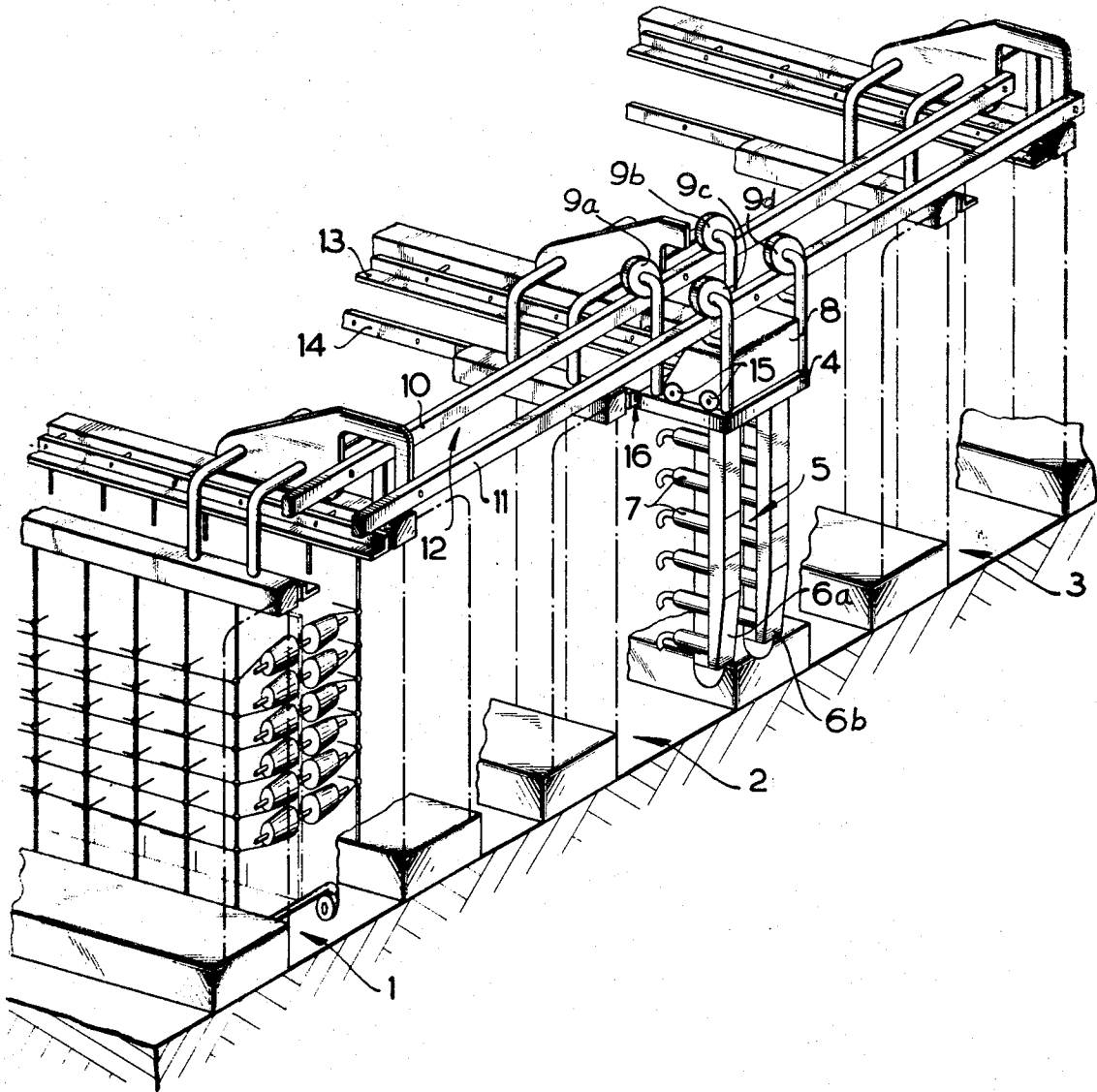
A creel has a dolly for receiving a tying device on the way from one creel to another. The dolly transports the tying device to other creels.

4 Claims, 1 Drawing Figure



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CREEL FOR TEXTILE MACHINES

The invention relates to a creel for textile machines. More particularly, the invention relates to a creel for textile machines with a tying device for the tying of thread ends, which tying device may be moved within the creel.

With creels of this type, the change of unwinding bobbins can be accelerated and the efficiency of the warping and shearing machines associated with the creels can be improved substantially.

It is known for this purpose to equip a creel with a tying device for the tying of thread ends, the tying device consisting of thread finding and tying devices. The tying device may, of course, be equipped with cementing, welding, splicing or similar devices which connect two thread ends with each other, instead of a tying device. The tying device is movable within a creel between the unwinding bobbins and the thread tensioning devices and ties the ends of the thread in the thread tensioning devices with those of the unwinding bobbins newly brought into the creel. All the aforementioned tying devices are complicated and expensive assemblies which are placed in operation only after new unwinding bobbins are introduced and remain unused in a ready position during the remaining time.

My invention is based on the recognition that the afore-described disadvantages of complexity, expensiveness and idle time are eliminated if a tying device may be used for several creels. To accomplish this, however, the track already available within a creel is merely extended to one or several other creels. The tying device, when used from one creel to another, is either confined to a given sequence, or the track must be provided with complicated switches and cross-overs in order to permit universal servicing of the creels.

An object of the invention is to provide a creel for textile machines which overcomes the disadvantages of known creels relating to the tying device.

Another object of the invention is to provide a creel for textile machines which has a tying system which is simple in structure, inexpensive in manufacture and operation and eliminates idle time.

Still another object of the invention is to provide a creel for textile machines which functions with efficiency, effectiveness and reliability.

In accordance with the invention, the tying device is supported on a dolly which accepts the tying device on the way from one creel to another and transfers the tying device to other creels. The dolly permits, in a particularly simple manner, a single tying device to be brought to the place where it is used within a warping or shearing installation consisting of one or several creels, and thereby utilizes the tying device to a far greater extent than before. In this connection, a "dolly" is understood to be any device suitable for supporting a tying device and movable via wheels, rollers, runners, or the like.

It is particularly advantageous if the dolly is movably guided on a suspension track which connects the individual creels with each other. The dolly can then be a mobile frame which the similarly mobile tying device is merely inserted into or removed from at the connection points of the individual creels.

In accordance with another, particularly advantageous characteristic of the invention, the suspension track may be arranged for the dolly in a straight line behind the ends of the creel. With such an arrangement,

several creels installed side by side may be serviced in any desired sequence. However, the creels may also be installed in groups in such a manner that the creel ends face each other. In any event, an operator can easily push the tying device supported by the dolly from one creel to another and bring the tying device, by simply pulling it out of the dolly, into the starting position at the end of one creel. The thread tying process takes place from the starting position within the creel.

In order that the invention may be readily carried into effect, it will now be described with reference to the accompanying drawing, wherein the single FIGURE is a perspective view of an embodiment of the creel of the invention for textile machines.

In the FIGURE, three creel ends 1, 2 and 3 are indicated of a series of creels installed side by side. A dolly 4 is located in front of the creel end 2. A tying device 5 is supported on the dolly 4. The dolly 4 has two arms 6a and 6b at which it is equipped with thread finding and tying devices 7. The thread finding and tying devices 7 correspond in number to the number of decks of a creel.

Drive elements are located in an upper part 8 of the tying device 5. The drive elements transport the tying device 5 within the creel and operate the thread finding and tying devices 7. The dolly 4 comprises a frame movable by means of rollers 9a, 9b, 9c and 9d. The tying device 5 can be inserted into and removed from the dolly 4 without effort by means of its truck. The truck of the dolly 4 has rollers 15 which are visible in the Figure. The dolly 4 runs over tracks 10 and 11 of a suspension track 12 via its rollers 9a, 9b, 9c and 9d.

In the embodiment of the Figure, the track 12 is led past the ends of the creel in a straight line. From the position of the dolly 4, supporting the tying device 5 in front of the creel end 2, it can clearly be seen how said dolly, with tracks 13 and 14 running inside the creel, forms a junction point 16 via which the tying device 5 can be pushed off said dolly into the starting position at the end of the creel.

It is seen from the Figure that the suspension track 12 may comprise simple rails and switches or cross-overs are unnecessary.

While the invention has been described by means of a specific example and in a specific embodiment, I do not wish to be limited thereto, for obvious modifications will occur to those skilled in the art without departing from the spirit and scope of the invention.

I claim:

1. In a creel assembly for use with textile machines having a tying device movable within a creel for tying thread ends, said creel assembly being provided with a mobile positioning means for receiving and positioning said tying device on its way from one creel to another, and guide means formed in cooperative relation with said mobile positioning means for fixing the relative position of said tying device with respect to a starting point at the end of said creel.

2. In a creel assembly as claimed in claim 1, wherein: suspension track means are provided in working relation with said mobile positioning means for movably mounting said mobile positioning means thereon, said track means serving to connect individual creels to each other, while fixing the position of said creels with respect to said tying device.

3. In a creel assembly as claimed in claim 1, wherein: said mobile positioning means comprises a frame

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means having associated roller means mounted thereon, for frame movement along said track means relative to said individual creels.

4. In a creel assembly as claimed in claim 2, wherein said suspension track means is disposed behind the

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ends of said individual creels in a straight line for relative placement of said mobile positioning means with respect to select creels.

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