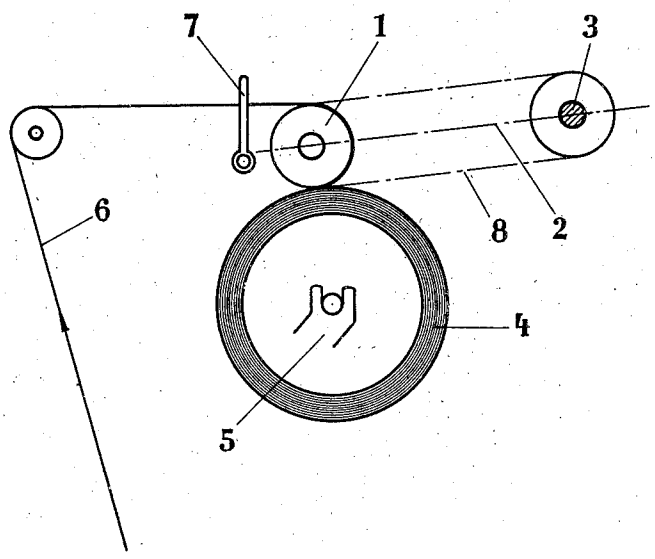
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ARRANGEMENT FOR THE PRODUCTION OF WINDING BODIES

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ARRANGEMENT FOR THE PRODUCTION OF WINDING BODIES

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2 Claims. (Cl. 242—18)

The production of winding bodies or the winding of bobbins whose drive is effected by a driving drum is known. The thread is fed to the body to be wound by the driving drum serving at the same time as delivery roller, this body bearing against the stationary driving drum and moves away from the driving drum corresponding to the growth of the winding. The winding bodies are either mounted in an oscillatable arm or they are laterally guided so that they are capable to yield corresponding to the progress of the winding. This arrangement is, however, open to a great objection, especially when treating fine thread material such as artificial silk and especially when large quantities have to be wound. The winding body rests on the driving drum under the action of gravity and its weight increases corresponding to the increase in the number of thread layers. Thus, during the winding process the pressure exerted by the winding body on the driving drum increases continually with the result that the thread layers, especially in the case of artificial silk, easily become damaged. This objection becomes continually greater, the larger the quantity of thread to be wound is, because the pressure increases correspondingly. However, the tendency today is to wind the largest possible quantity of thread, but the known winding arrangements are by no means suitable for this purpose. Arrangements are certainly known, whose object is to maintain constant the pressure exerted by the bobbin during the winding period. These known arrangements cannot, however, be used for winding fine thread material because the winding bobbin is so arranged that the driving drum cannot be used as delivery roller. Moreover, additional elements, such as weights, brakes or the like are then necessary for attaining the uniform pressure and which make the construction of such an arrangement complicated, which evidently has a detrimental influence on the service and reliability of operation.

These objections are entirely overcome by this invention. It consists in that for driving the stationary winding body the driving drum bears on the winding body under the action of gravity, the driving drum being at the same time so arranged that it can be used also as delivery roller. The driving drum mounted on an oscillatable lever is preferably driven from the oscillatable lever shaft through the intermediary of toothed wheels, belts or the like.

This construction presents the advantage that the winding body is only loaded by the weight of the driving drum, so that pressure caused by the weight remains constant during the winding operation. Consequently, an increasing load corresponding to the growth of the winding body and a resultant increase in the pressure between the driving drum and the winding body can no longer take place, with the result that damaging, especially in the case of fine thread material is reliably avoided. By the present invention it is possible to wind without danger and in any desired quantity artificial silk which is itself very delicate. Therefore, the present day aim of accommodating the largest possible quantities of thread can be attained without any fear of detrimentally affecting the wound material. Another advantage of the invention above described is, that the arrangement of the driving drum is so chosen that it can also be used at any time as delivery roller. Furthermore, the uniform pressure exerted during the winding period is attained without additional elements or the like, so that the arrangement in the present instance is extremely simple and reliable both in construction and service.

An embodiment of the invention is illustrated by way of example diagrammatically and in elevation in the accompanying drawing.

The delivery roller 1, which is mounted on an arm 2 oscillatable about a shaft 3 rests loosely on the winding body 4 which is held stationary in bearings 5. The thread 6 is fed by the thread guide 7 to the delivery roller 1 and thence to the winding body. The winding body is driven by the delivery roller 1 resting loosely thereon and which swings out corresponding to the growth of the winding body. At the same time the roller 1 is driven from the shaft 3 through the intermediary of a belt 8. It is evidently also possible to allow the roller 1 to act only as driving drum and to feed the thread directly to the winding body through the intermediary of the thread guide. This does not in any way affect the idea governing the invention which consists substantially in maintaining constant the pressure exerted on the thread layers during the whole winding process without the aid of additional elements.

I claim:

1. An arrangement for the production of a winding body, comprising in combination a bracket, a winding body rotatable in said bracket on an axis fixed with respect thereto, and a revolubly mounted driving drum resting by gravity on said body and serving at the same time as a thread delivery roller.

2. In an arrangement as specified in claim 1, a driving shaft, an arm revolubly mounted on said shaft and carrying the driving drum, and a belt between said shaft and said driving drum adapted to transmit the rotary movement of said shaft to said drum.

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