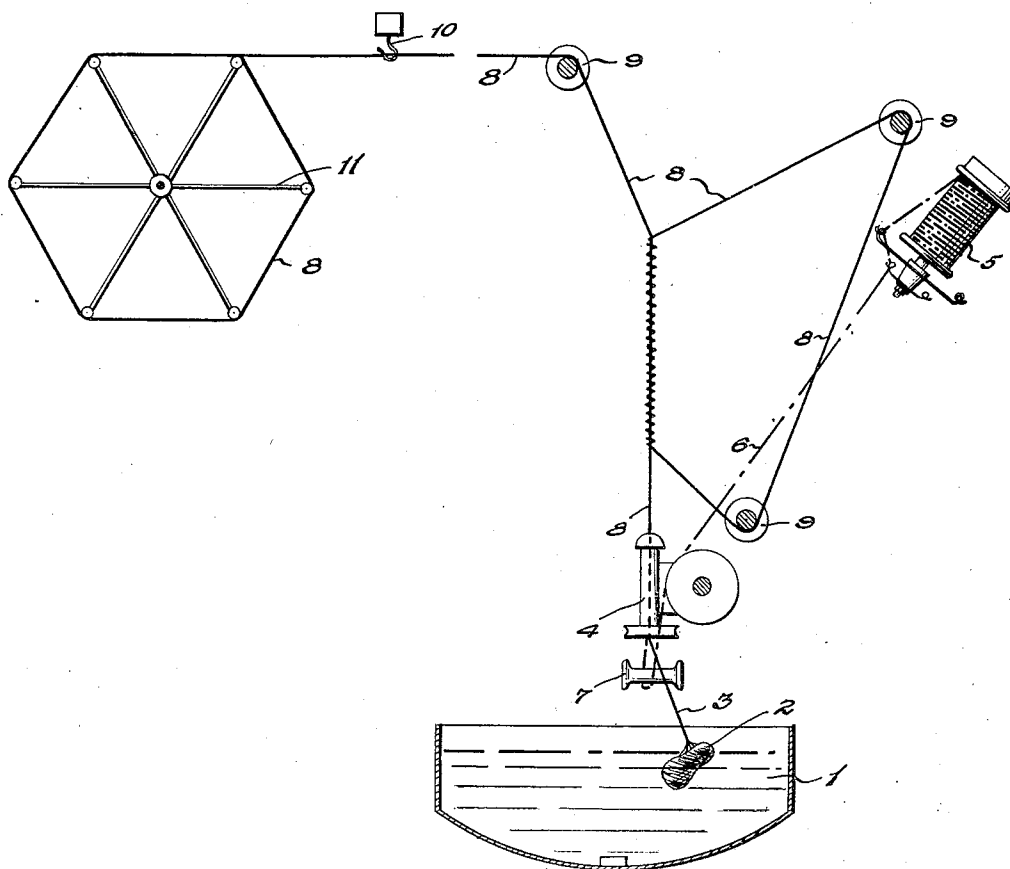


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PROCESS OF MANUFACTURE OF MIXED YARNS OF ARTIFICIAL
TEXTILE FIBER AND NATURAL SILK THREADS
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PROCESS OF MANUFACTURE OF MIXED YARNS OF ARTIFICIAL TEXTILE FIBER AND NATURAL SILK THREADS

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2 Claims. (Cl. 19-3)

The present invention relates to a new process of manufacturing mixed yarns consisting of artificial textile fiber (rayon) and natural silk threads.

It is well known that the operation of coupling said two kinds of yarn is usual in textile industry, either in view of obtaining different effects from dyeing or for imparting a silky touch to the fabrics consisting prevaillingly of rayon; or else, mainly, for conferring to rayon fabrics that strength which rayon alone could not attain within the limits of the whatever desired count.

Up to now, the desired mixed yarn is obtained by doubling one or more rayon threads with one or more raw silk yarns, giving to the whole the desired twist. Such a method, besides being considerably expensive, requires a great number of knots with evident unfavourable consequences for the successive working steps; moreover, said method requires, which is most important, a mixture having a high content of natural silk, even if a mixture of less content would be sufficient, because the raw silk yarns practically available on the market have counts corresponding at least to the coupling of the threads fed by 3 or 4 cocoons together; this fact prevents the formation of mixed yarns having a lower content, such as those which could be formed by using silk threads from one or two cocoons only.

The process according to the present patent application allows the formation in a very cheap way of mixed yarns of any desired composition. Said process consists in doubling and thoroughly uniting rayon and silk threads during the silk reeling step or during any other spinning process, from cocoons directly.

According to a preferred way of carrying out the process, indicated here only as a non-limitative example, a rayon thread is fed to a normal silk reeling apparatus and by means of a normal silk reeling or spinning process united with the filaments drawn from one or more cocoons as desired, a real rayon-silk mixed yarn being thus obtained within a very wide range of possible

proportions of content, as it is possible to employ, as desired, filaments from one or more cocoons.

The accompanying drawing shows diagrammatically, only by way of example, an embodiment of a device for carrying out the process according to the invention, a reeling basin being employed for the above purpose.

1 is a basin for reeling one or more cocoons 2 from each of which the silk filament 3 is fed to the piecer 4. The rayon thread 5 from the bobbin 5 reaches the piecer 4 through the fixed thread guide 7. The mixed thread 8 issues from the piecer, passes on the small guide wheels 9 and forms the twist where the fibers making up the composite yarn become satisfactorily supported by each other; thereafter, the yarn, guided by the movable thread guide 10, is wound on the reel 11.

It is understood that it is possible to attain the same purpose also with arrangements different from the one which has been illustrated. Although with less perfect and more expensive results, it is possible, for instance, to employ, instead of reeling basins, devices not for the reeling process, always obtaining, however, the natural silk required for the mixture directly from the cocoons.

What I claim is:

1. A process for the manufacture of a mixed yarn composed of artificial textile fiber and natural silk filaments including the steps of removing the silk filaments directly from the cocoon, and adding the artificial fiber to the silk filament during the removal of the silk filament from the cocoon.

2. A process for the manufacture of a mixed yarn composed of artificial textile fibers and natural silk filaments comprising simultaneously removing the natural silk filaments from the cocoon and the artificial textile fiber from the bobbin, and adding the artificial textile fiber to the natural silk filament while the removal thereof is being effected.

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