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APPARATUS FOR PREPARING THROWN SILK OR WARP IN A SINGLE OPERATION.

APPLICATION FILED FEB. 19, 1909.

981,122.

Patented Jan. 10, 1911

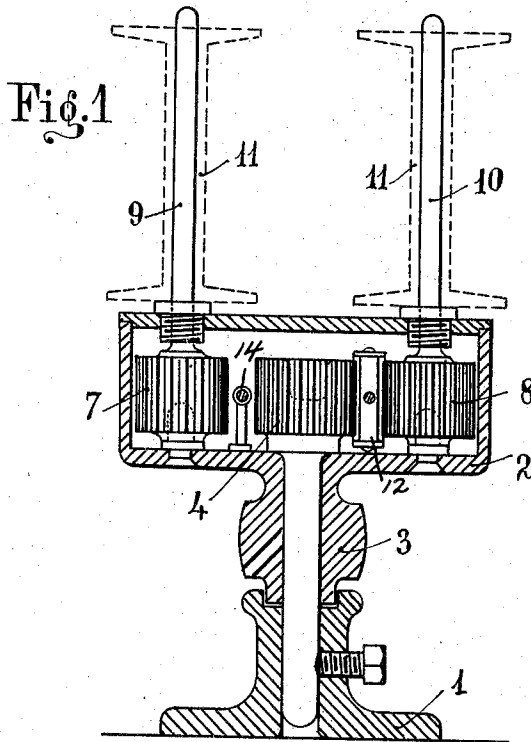
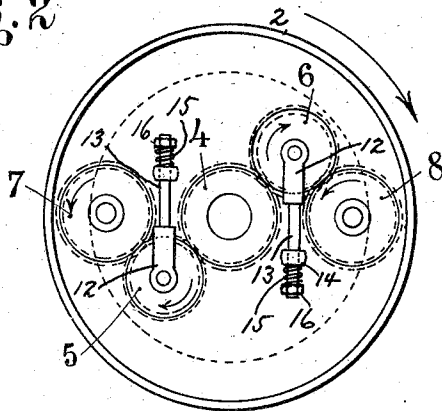


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

PIETRO SARACCO, OF SALUZZO, ITALY.

APPARATUS FOR PREPARING THROWN SILK OR WARP IN A SINGLE OPERATION.

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Specification of Letters Patent.

Patented Jan. 10, 1911.

Application filed February 19, 1909. Serial No. 478,810.

To all whom it may concern:

Be it known that I, PIETRO SARACCO, a subject of the King of Italy, residing at Saluzzo, in Italy, have invented a certain new and useful Apparatus for Preparing Thrown Silk or Warp in a Single Operation, of which the following is a specification.

This invention relates to an apparatus for preparing thrown silk or weft, in which the three last operations, that is to say, spinning (the first twisting), doubling and spinning (the second twisting) are reduced to a single operation, and in which the size is reduced and the regularity of the rotation is secured by the construction of the apparatus.

In the accompanying drawing:—Figure 1 is a vertical section and part elevation of the apparatus, and Fig. 2 a plan partly in section through the casing.

As will be seen from the figures, the apparatus comprises a fixed leg or stand 1, on which is mounted in an easily rotatable manner a box or casing 2 provided with a pulley 3 for the driving belt. To the leg or support 1 is secured a toothed wheel 4 engaging with the pinions 5 6, which have a pivotal connection with the casing 2 through the media of the stirrups 12 and brackets 14 presently referred to and which pinions engage with the toothed wheels 7 and 8 the latter being provided with projecting spindles 9 and 10 intended to receive the spools 11.

When the casing 2 is rotated in one direction the toothed wheels 7 and 8 rotate in the opposite direction with the spools 11 (see the arrows) so that, by suitably calculating the ratio of transmission of the wheels, it is possible to cause the casing to make 500 revolutions in a clockwise direction about the pivot 1 during the time that the spools 11 make 600 revolutions in a counter clockwise direction about their axes, that is to say the ordinary "finish" of 600/500 is obtained; or the casing can make 400 revolutions, and the spools 460 revolutions, so as to get the average finish of 460/400.

By this construction the space required is the smallest possible, so that many of these

apparatus can be grouped in a single machine, and besides all the gears are completely inclosed in a casing.

The motion is applied to the apparatus directly by the pulley 3 solid with the casing 2 and the rotation of this casing causes the spools to rotate, because the wheels 7 and 8 carrying the spindles of the spools and journaled in the casing 2, gear with the pinions 5 6 which are in engagement with the central stationary pinion 4.

As all the transmission parts turn together with the casing 2, this casing serves as a fly-wheel thus causing a regular motion of the apparatus.

The transmission wheels 5 6 are mounted in the casing in such a manner that they can be easily disengaged from the stationary pinion 4, and then the apparatus can be utilized for preparing weft, because then the twisting of the elementary threads coming from the spools 11 does not take place.

Each transmission wheel 5 and 6 is carried in a U-shaped stirrup 12 provided with a shank 13. This shank is mounted in the bracket 14 and is held resiliently in the latter by a nut 16, which bears against the spring washer device 15. Thus by removing the nut 16 the transmission wheels can be disengaged and removed.

What I claim as my invention and desire to secure by Letters Patent is:—

1. In an apparatus for preparing thrown silk or weft, the combination of spools on which the silk is wound, a stationary pinion, a spindle to carry said pinion, a casing adapted to be rotated about the spindle, intermediate transmission toothed wheels carried in said casing and engaging with the pinion and adapted to be disengaged from the said pinion, toothed spool wheels carried in the casing and engaging with the intermediate transmission wheels, and spindles mounted in said spool wheels to carry the spools.

2. In an apparatus for preparing thrown silk or weft, the combination of spools on which the silk is wound, a stationary pinion, a spindle to carry said pinion, a closed casing adapted to be rotated about the spindle, intermediate transmission toothed wheels carried in said casing and engaging with

the pinion and adapted to be disengaged
from the said pinion, toothed spool wheels
carried in the casing and engaging with the
intermediate transmission wheels, spindles
5 mounted in said spool wheels to carry the
spools and a driven pulley for the casing.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

PIETRO SARACCO.

Witnesses:

LOUIS ALLAN,
SECONDO TORTA.