

FORM 2

THE PATENTS ACT, 1970
(39 of 1970)
AND
THE PATENTS RULES, 2003

**COMPLETE
SPECIFICATION**

(See Section 10; rule 13)

TITLE OF THE INVENTION

“ROVING WINDER AND METHOD OF WINDING ROVINGS ON TO BOBBINS”

APPLICANT

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The following specification particularly describes
the invention and the manner in which
it is to be performed

PATENT CLAIMS

1. Roving winder, particularly a turret roving winder, comprising at least a pair of rotating bobbins, each provided with a circumferential toothed strip for holding the roving, the bobbins being fitted on a rotary platform which is rotatably fitted in a frame of the equipment, the winder also comprising a roving guide device located longitudinally with respect to the axis of rotation of the bobbin, positioned outside the rotary platform and adjacent to one bobbin, while the other bobbins are brought towards the roving guide device by the rotation of the rotary platform when each fully wound bobbin is exchanged for an empty bobbin, characterized in that the equipment is provided with a movably fitted impulse means whose direction of movement intersects the direction of movement of the roving between the fully wound bobbin and the empty bobbin near the roving guide device in the area of the circumferential toothed strip on the empty bobbin, the impulse means being provided with a drive means.
2. Winder according to Claim 1, characterized in that the impulse means is made in the form of a hook, a plate, a bent plate, a rod or a rod with a guiding end.
3. Winder according to Claim 1 or 2, characterized in that the impulse means is made from metal, plastics or composite material.
4. Winder according to any one of Claims 1 to 3, characterized in that the part of the impulse means designed to contact the roving is provided with an edge.
5. Winder according to any one of Claims 1 to 4, characterized in that the impulse means can be moved in a reciprocatingly projecting or reciprocatingly oscillating or reciprocatingly linear or rotating way.
6. Winder according to any one of Claims 1 to 5, characterized in that the impulse means can be moved at a velocity such that its impact on the roving breaks the

roving and deflects the free end of the roving on to the circumferential toothed strip on the empty bobbin near the roving guide device.

7. Winder according to any one of Claims 1 to 6, characterized in that, in its movement, the impulse means passes close to, or touches, the circumferential toothed strip on the empty bobbin near the roving guide device.
8. Method of winding rovings on to bobbins, particularly on a turret roving winder, in which the roving is wound with the aid of a roving guide device on to a rotating bobbin, the fully wound bobbin is moved away from the roving guide device after the winding of the full bobbin, and the empty rotating bobbin with a toothed strip for holding the roving is brought towards the roving guide device, while the roving continues to be wound on to the fully wound bobbin, characterized in that, after the roving has been brought towards the toothed strip for holding the roving on the empty bobbin near the guide device, the roving is broken in a controlled way in the area between the fully wound bobbin and the empty bobbin and the free end of the roving on the empty bobbin is simultaneously directed on to the toothed strip for holding the roving on the empty bobbin, where the roving is caught by the toothed strip and starts to be wound on to the empty bobbin without any interruption in the production or the winding of the roving.
9. Method according to Claim 8, characterized in that at least the rate of the winding of the roving is decreased temporarily before the controlled breaking of the roving, and is increased again when the roving has been caught by the toothed strip on the empty bobbin, thus increasing the reliability of the breaking of the roving and the catching of the roving on the the toothed strip on the empty bobbin.
10. Method according to Claim 9, characterized in that the rate is increased above the normal production level after the roving has been caught by the toothed strip on the empty bobbin, thus taking up the excess reserve of roving produced when the winding rate was decreased.

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