

Title (en)

Improved apparatus for automatically shaping windings for extremely elongated coils, in particular to form dipole or quadrupole magnets.

Title (de)

Automatische Vorrichtung zum Formen von Wicklungen für extrem langgestreckte Spulen, insbesondere geeignet für Dipol- oder Quadrupolmagnete.

Title (fr)

Appareil pour former automatiquement des enroulements pour bobines extrêmement allongées, en particulier destinées à des aimants dipôles ou quadrupôles.

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Application

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Priority

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Abstract (en)

There are described improvements applied to an apparatus for automatically winding of coils on forms or winding holders (F,11) having a remarkable longitudinal extension in comparison with the transverse sizes, particularly suitable for dipole or quadrupole magnets. The apparatus, already generally known from EP-A-0278924 provides for the reciprocating oscillating movement of said form (F) by about 180 DEG , taken as a whole, being obtained, at least at each end, by meshing a pinion (15) from a geared motor (12, 12a) with a toothed half-ring (19) having a central portion (19a) fixedly mounted to said coil holder (F,11) and two symmetric outer wings (19b, 19c), being hinged at both sides of said central portion (19a), suitable to tilt alternatively by gravity, according to the rotation direction, as soon they are no longer supported by an arc-shaped stationary guide (34) which is coaxial with the said half-ring (19) and such as to minimize the radial clearances The apparatus also comprises a template carriage (2) to support the reel holding arm (3) for the conductor (10) to be wound and preferably provides for a non contemporary but sequential action of the ram means in the length direction of the form (F) for positioning each length of laid down conductor (10).

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