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Applicant: **Aktionernoe Obschedtvo
Zakrytogo Tipa "Bimet-Nytva"
Oktyabrsky pr., 18
Kirov, 610016 (RU)**

72

Inventor: **STAZAEV, Vladimir Nikolaevich
ul. Lenina, 20-144
Kirov, 610000 (RU)**

74

Representative: **Lins, Edgar, Dipl.-Phys. Dr.jur.
et al
Patentanwälte Gramm + Lins
Theodor-Heuss-Strasse 1
D-38122 Braunschweig (DE)**

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METHOD OF MANUFACTURING WIRE.

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A half-finished product for wire drawing is obtained by cutting ribbon-like material into narrow rectangular strips, welding the strips together and rounding the edges.

EP 0 684 092 A1

Technical Field

The present invention relates to wire production practice.

Background Art

Known in the present state of the art is a method for producing a long-length wire rod by drawing a bar through drawing dies until a preset size is obtained (cf. British Patent # 1,400,872, Int. Cl. B 21 C 37/04, 1975).

The process in question is a labor-consuming one, since it involves special equipment for wire drawing through drawing dies for a number of passes.

According to USSR Patent # 683,606, Int.Cl. B 21 C 37/04, 1979, a less number of a bar drawing passes are required to obtain a required rod dimension, since the bar is preliminarily given a polyhedral cross-sectional shape having the dimensions to a maximum extent approximating the preset wire rod dimensions.

Disclosure of the Invention

The present invention has for its principal object to provide a higher output of the wire production process and a lower power and material consumption.

The foregoing object is accomplished due to producing a wire bar by cutting a strip rolled stock into narrow strips, rounding-off the edges of the strips using the etching process or mechanically, and drawing the resultant wire bar through drawing dies until a preset dimension is obtained. Preparatory to drawing the wire bars are butt-welded together.

Embodiments of the Invention

The herein-proposed method is carried into effect as follows.

To produce dia.1 mm copper wire (from M-3 alloy), a 1.5-mm-thick strip rolled stock is produced on double-stand rolling mills, the rolling process occurring for five passes at a speed of 2 - 3.5 m/s and a 20% reduction per pass.

Then the strip rolled stock is cut into 1.5-mm-wide strips to obtain a square wire bar having a 1.5 x 1.5 mm cross-section.

Next the ends of the resultant wire bars are butt-welded together, whereupon the edges of the resultant long-length bar are rounded off by the edging process.

The final operation, i.e., drawing is performed for three passes at a drawing speed of 0.5 m/s and a 17% reduction per pass.

To produce dia.0.75 mm brass wire a strip stock is rolled for six passes to a thickness of 1 mm, the rolling conditions being the same as in producing copper wire.

The strip stock is cut into 1-mm-wide strips, which are then welded together, the edges are rounded off, and the strips are drawn to a diameter of 0.75 mm for three passes, the reduction per pass being 8%.

Claims

1. A method for wire producing, consisting in that wire bars are obtained and then drawn to a required dimension, CHARACTERIZED in that said wire bars are produced by cutting strip rolled stock into rectangular-cross-section strips and rounding-off the edges thereof.
2. A method according to Claim 1, CHARACTERIZED in that preparatory to rounding-off the edges of the rectangular-cross-section strips they are butt-welded together.
3. A method according to Claims 1 and 2, CHARACTERIZED in that the edges are rounded off by the etching process.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER		
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B. FIELDS SEARCHED		
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 3953250 (Monsanto Company), 27 April 1976 (27.04.76)	1
A	GB, A, 1502400 (A. Tonolli & C. S.p.A.), 1 March 1978 (01.03.78)	2
A	V.V. Zhelobov et al. "Obrabotka tsvetnikh metallov i splavov davleniem", 1955, Moscow METALLURGIZDAT, pages 135-136	3
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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