

## SECTION B — PERFORMING OPERATIONS; TRANSPORTING

### B21 MECHANICAL METAL-WORKING WITHOUT ESSENTIALLY REMOVING MATERIAL; PUNCHING METAL

**B21F WORKING OR PROCESSING OF METAL WIRE** (rolling of metal B21B; by drawing, auxiliary operations used in connection with metal-working without essentially removing material B21C; bundling articles B65B 13/00)

#### Subclass index

#### WIRE WORKING CHARACTERISED BY OPERATIONS PERFORMED

Bending, straightening; coiling; twisting.....	1/00, 3/00, 7/00
Upsetting, straining.....	5/00, 9/00
Cutting, splitting, connecting.....	11/00, 13/00, 15/00
Articles jacketed or reinforced with wire.....	17/00
Coating of wire.....	19/00
Other treatments.....	99/00
Feeding wire into apparatus.....	23/00

#### WIRE WORKING CHARACTERISED BY THE PARTICULAR ARTICLES PRODUCED

Barbed wire;network, fencing, wire fabrics.....	25/00, 27/00-33/00
Springs, rings.....	35/00, 37/00
other articles.....	39/00-45/00

#### Wire working characterised by operations performed

<b>1/00</b>	<b>Bending wire other than coiling; Straightening wire [1, 2006.01]</b>
1/02	• Straightening [1, 2006.01]
1/04	• Undulating [1, 2006.01]
1/06	• Bending wire-eyes [1, 2006.01]
<b>3/00</b>	<b>Coiling wire into particular forms [1, 2006.01]</b>
3/02	• helically [1, 2006.01]
3/027	• • with extended ends formed in a special shape, e.g. for clothes-pegs [1, 2006.01]
3/04	• • externally on a mandrel or the like [1, 2006.01]
3/06	• • internally on a hollow form [1, 2006.01]
3/08	• to flat spiral [1, 2006.01]
3/10	• to spirals other than flat, e.g. conical [1, 2006.01]
3/12	• of interconnected helical springs [1, 2006.01]
<b>5/00</b>	<b>Upsetting wire</b> (in the manufacture of nails or pins B21G 3/12) [1, 2006.01]
<b>7/00</b>	<b>Twisting wire; Twisting wire together</b> (for connections of limited size B21F 15/04) [1, 2006.01]
<b>9/00</b>	<b>Straining wire</b> (straining prestressing wires for concrete E04G 21/12; connections or attachments adapted for straining F16G 11/00) [1, 2006.01]
9/02	• by tools adapted also for making connections [1, 2006.01]
<b>11/00</b>	<b>Cutting wire</b> (hand-held metal-shearing or metal-cutting devices B23D 29/00; hand cutting tools with two jaws which come into abutting contact B26B 17/00) [1, 2006.01]

#### **13/00 Splitting wire [1, 2006.01]**

<b>15/00</b>	<b>Connecting wire to wire or other metallic material or objects; Connecting parts by means of wire</b> (tools for both straining and connecting B21F 9/00; jacketing or reinforcing B21F 17/00; manufacture of wire network B21F 27/00; in making bands B21F 43/00) [1, 2006.01]
15/02	• wire with wire [1, 2006.01]
15/04	• • without additional connecting elements or material, e.g. by twisting [1, 2006.01]
15/06	• • with additional connecting elements or material [1, 2006.01]
15/08	• • • making use of soldering or welding [1, 2006.01]
15/10	• wire with sheet metal [1, 2006.01]

**17/00 Jacketing or reinforcing articles with wire** (by winding B65H 54/00, B65H 81/00; by braiding D04C) [1, 2006.01]

**19/00 Metallic coating of wire** (by extruding B21C 23/24; by soldering or welding, e.g. cladding or plating, B23K; by other non-mechanical means C23; electroplating C25D) [1, 2006.01]

**23/00 Feeding wire in wire-working machines or apparatus** (applicable also to feeding rods or strips B21D 43/00) [1, 2006.01]

#### Wire working characterised by the particular articles produced

**25/00 Making barbed wire [1, 2006.01]**

## B21F

27/00	<b>Making wire network, i.e. wire nets</b> (meshed-ring network B21F 31/00; in making bands B21F 43/00; using looms D03D) [1, 2006.01]	37/00	<b>Manufacture of rings from wire</b> (in chain making B21L; producing bead-rings or bead-cores for tyres B29D 30/48) [1, 2006.01]
27/02	• without additional connecting elements or material at crossings, e.g. connected by knitting [1, 2006.01]	37/02	• or resilient rings, e.g. key-rings [1, 2006.01]
27/04	• • Manufacturing on machines with rotating blades or formers [1, 2006.01]	37/04	• of washers (B21F 37/02 takes precedence) [1, 2006.01]
27/06	• • Manufacturing on twister-gear machines [1, 2006.01]	39/00	<b>Making wheel spokes from wire</b> [1, 2006.01]
27/08	• with additional connecting elements or material at crossings [1, 2006.01]	41/00	<b>Making umbrella frames or members from wire</b> [1, 2006.01]
27/10	• • with soldered or welded crossings [1, 2006.01]	43/00	<b>Making bands, e.g. bracelets, or wire</b> (making chains B21L; using looms D03D) [1, 2006.01]
27/12	• Making special types or portions of network by methods or means specially adapted therefor [1, 2006.01]	45/00	<b>Wire-working in the manufacture of other particular articles</b> (of pins, needles, nails, hairpins B21G; of chains B21L) [1, 2006.01]
27/14	• • Specially bending or deforming free wire ends [1, 2006.01]	45/02	• of clothes hangers [1, 2006.01]
27/16	• • for spring mattresses [1, 2006.01]	45/04	• of elements, e.g. levers or links, for bottle stoppers [1, 2006.01]
27/18	• • of meshed work for filters or sieves [1, 2006.01]	45/06	• of flexible shafts or hollow conduits, e.g. for Bowden mechanisms [1, 2006.01]
27/20	• • of plaster-carrying network [1, 2006.01]	45/08	• of loom heddles [1, 2006.01]
27/22	• • of network for wire-reinforced glass or the like [1, 2006.01]	45/10	• of cards for fabric-napping machines [1, 2006.01]
29/00	<b>Making fencing or like material made partly of wire</b> (B21F 25/00, B21F 27/00 take precedence) [1, 2, 2006.01]	45/12	• of fishing hooks [1, 2006.01]
29/02	• comprising bars or the like connected by wires [1, 2006.01]	45/14	• of end-pieces for laces or ropes [1, 2006.01]
31/00	<b>Making meshed-ring network from wire</b> [1, 2006.01]	45/16	• of devices for fastening or securing purposes [1, 2006.01]
33/00	<b>Tools or devices specially designed for handling or processing wire fabrics or the like</b> [1, 2006.01]	45/18	• • of slide fastener elements [1, 2006.01]
33/02	• Mounting of wire network on frames [1, 2006.01]	45/20	• • of spring hooks; of spring safety hooks [1, 2006.01]
33/04	• Connecting ends of helical springs for mattresses [1, 2006.01]	45/22	• • of paper fasteners or clips (staples B21F 45/24) [1, 2006.01]
35/00	<b>Making springs from wire</b> (by coiling wire B21F 3/00; making resilient rings B21F 37/02) [1, 2006.01]	45/24	• • of staples; of belt-fastening elements [1, 2006.01]
35/02	• Bending or deforming ends of coil springs to special shape [1, 2006.01]	45/26	• • of buttons [1, 2006.01]
35/04	• Making flat springs, e.g. sinus springs [1, 2006.01]	45/28	• • • of "patent-fastener" or press-button type [1, 2006.01]
		99/00	<b>Subject matter not provided for in other groups of this subclass</b> [2009.01]