

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### SHAPING

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

(NOTES omitted)

## B21H MAKING PARTICULAR METAL OBJECTS BY ROLLING, e.g. SCREWS, WHEELS, RINGS, BARRELS, BALLS (essentially from sheet metal [B21D](#))

### NOTE

This subclass covers rolling operations which are specially adapted for use in the manufacture of particular objects and which are not essentially combined with any different metal-working operation unless the latter is a subsidiary operation performed in the same machine.

### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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| <p><b>1/00</b>    <b>Making articles shaped as bodies of revolution</b><br/>(rolling tubes <a href="#">B21B 17/00</a> - <a href="#">B21B 25/00</a>)</p> <p>1/02    . discs; disc wheels</p> <p>1/04    . . with rim, e.g. railways wheels {or pulleys}</p> <p>1/06    . rings of restricted axial length (extending closed shapes of metal bands by simultaneous rolling at two or more zones <a href="#">B21B 5/00</a>)</p> <p>1/08    . . railway wheel rims</p> <p>1/10    . . rims for pneumatic tyres</p> <p>1/12    . . rings for ball or roller bearings</p> <p>1/14    . balls, rollers, cone rollers, or like bodies</p> <p>1/16    . . for bearings</p> <p>1/18    . cylinders, e.g. rolled transversely {cross-rolling}</p> <p>1/20    . . rolled longitudinally</p> <p>1/22    . characterised by use of rolls having circumferentially varying profile {; Die-rolling}</p> <p><b>3/00</b>    <b>Making helical bodies or bodies having parts of helical shape</b> (helical gears <a href="#">B21H 5/00</a>; forming tubes or tube walls into helical shape <a href="#">B21D 11/06</a>, <a href="#">B21D 15/04</a>)</p> <p>3/02    . external screw-threads {; Making dies for thread rolling}</p> <p>3/022    . . {combined with rolling splines, ribs, grooves or the like, e.g. using compound dies}</p> <p>3/025    . . {Rolling locking screws}</p> <p>3/027    . . {Rolling of self-tapping screws}</p> <p>3/04    . . Making by means of profiled-rolls {or die rolls}</p> <p>3/042    . . . {Thread-rolling heads}</p> <p>3/044    . . . . {working axially}</p> <p>3/046    . . . . {working radially}</p> <p>3/048    . . . . {working tangentially}</p> <p>3/06    . . Making by means of profiled members other than rolls, e.g. {reciprocating flat dies or} jaws, moved longitudinally or curvilinearly with respect to each other</p> <p>3/065    . . . {Planetary thread rolling}</p> | <p>3/08    . internal screw-threads</p> <p>3/10    . twist-drills; screw-taps</p> <p>3/12    . articles with helicoidal surface (bending strip or the like helically <a href="#">B21D 11/06</a>)</p> <p><b>5/00</b>    <b>Making gear wheels {, racks, spline shafts or worms}</b></p> <p>5/005    . {Worms}</p> <p>5/02    . with cylindrical outline {, e.g. by means of die rolls (worms <a href="#">B21H 5/005</a>)}</p> <p>5/022    . . {Finishing gear teeth with cylindrical outline, e.g. burnishing}</p> <p>5/025    . . {Internally geared wheels}</p> <p>5/027    . . {by rolling using reciprocating flat dies, e.g. racks (<a href="#">B21H 5/022</a> takes precedence)}</p> <p>5/04    . bevel gears</p> <p>5/045    . . {Finishing bevel gear teeth, e.g. burnishing}</p> <p><b>7/00</b>    <b>Making articles not provided for in the preceding groups, e.g. agricultural tools, dinner forks, knives, spoons</b> (nails, pins <a href="#">B21G 3/30</a>)</p> <p>7/002    . {Fasteners, rivets}</p> <p>7/005    . {railway sleepers or chains}</p> <p>7/007    . {Taper rolling, e.g. leaf springs}</p> <p>7/02    . spades; shovels</p> <p>7/04    . hoes</p> <p>7/06    . ploughshares; axes</p> <p>7/08    . forks; rakes {spoons}</p> <p>7/10    . knives; sickles; scythes</p> <p>7/12    . horse-shoes; articles of like shape, e.g. wear-resisting attachments for shoes</p> <p>7/14    . knurled articles</p> <p>7/16    . turbine blades; compressor blades; propeller blades</p> <p>7/18    . grooved pins; Rolling grooves, e.g. oil grooves, in articles {(B21H 5/00 takes precedence)}</p> <p>7/182    . . {Rolling annular grooves}</p> <p>7/185    . . . {Filet rolling, e.g. of crankshafts}</p> |
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## B21H

- 7/187 . . {Rolling helical or rectilinear grooves}
- 8/00 Rolling metal of indefinite length in repetitive shapes specially designed for the manufacture of particular objects {, e.g. checkered sheets}**
- 8/005 . {Embossing sheets or rolls}
- 8/02 . Rolls of special shape
- 9/00 Feeding arrangements for rolling machines or apparatus manufacturing articles dealt with in this subclass**
- 9/02 . for screw-rolling machines