

# 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.

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

## 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