

G04D

APPARATUS OR TOOLS SPECIALLY DESIGNED FOR MAKING OR MAINTAINING CLOCKS OR WATCHES

Definition statement

This place covers:

Apparatus, devices, tools and machines for manufacturing, processing, assembling, lubricating and testing clocks or watches and units thereof.

Relationships with other classification places

The general aspects of machine tools or metal-working not specially adapted for [G04D](#) are covered by class [B23](#). Grinding and polishing in general are covered by class [B24](#). The general aspects of hand tools, portable power-driven tools, handles for hand implements or manipulators are covered by class [B25](#).

Special rules of classification

In horology only a low percentage of patent applications deal with machines and tools, however manufacturing methods have become very popular: these are normally classified in [G04B](#) (for example [G04B 17/066](#): manufacture of the spiral spring) however the working process of the machine may suggest a manufacturing process, so please consider searching in the relevant [G04D](#) subgroup when dealing with a manufacturing method.

G04D 1/00

Gripping, holding, or supporting devices {(stands in general [F16M](#); for instruments [G01D 11/30](#), [B01L](#))}

Definition statement

This place covers:

Tools for assembling, disassembling and mounting such as tweezers, vice clamps; Supporting and holding devices for clockworks or parts of time-pieces; Equipment for opening or closing watch bottoms or covers.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surgical pinsetters	A61B 17/30
Vices, hand vices, pliers, work holders or positioners in general	B25B
Manipulators	B25J
Supports in general	F16M
Supports specially adapted for an instruments or a set of instruments	G01D 11/30
Mounting the clockwork in the cases	G04B 37/04
Component assemblies of electronic time-pieces	G04G 17/02
Resilient or clamping means for holding component to structure	H05K 7/12

G04D 3/00**Watchmakers' or watch-repairers' machines or tools for working materials
{(metal working in general class [B23](#))}****Definition statement***This place covers:*

Machines and tools for burnishing, lathing, gauging, lapping or for other processes of treatment of clocks or watches; Devices for fixing bearing jewels, placing the elements of bearings; Devices for shaping or setting watch glasses; Machines or apparatus for cleaning.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Tools for setting gems in jewellery	A44C 17/04
Making jewellery or other personal adornments	A44C 27/00
Cleaning in general	B08B
Setting gems or the like on metal parts, e.g. diamonds on tools	B23P 5/00
Machines for assembling or disassembling parts	B23P 19/04
Bearings and details thereof	F16C 15/00 - F16C 33/00
Jewel bearings for mechanical watches	G04B 31/00
Sealing watch crystals or glasses	G04B 39/02
Automatically operating machines in a manufacturing environment	G05B 19/18

G04D 5/00**Oiling devices; Special lubricant containers for watchmakers {(bearings constructed with regard to oiling of the clockwork [G04B 31/08](#); oilcans for lubricating in general [F16N 3/04](#))}****Definition statement***This place covers:*

Devices or arrangements for lubricating; Special lubricant containers for watchmakers.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Arrangements for lubricating tools or work	B23Q 11/10
Special parts or details of bearings in view of lubrication	F16C 33/66
Lubricating in general	F16N
Lubrication of bearings using in clocks or watches	G04B 31/08

G04D 7/00

Measuring, counting, calibrating, testing or regulating apparatus {(measuring devices and calibers in general [G01B](#); counters in general [H03K](#))}

Definition statement

This place covers:

Arrangements or apparatus used for measuring, counting, calibrating, testing or regulating of clock's units or parts, e.g. such as gearworks, balance wheels or hairsprings.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Instruments for measuring linear dimensions, angles, length or thickness	G01B
Instruments for measuring stress, force or torque in general	G01L 1/00 - G01L 3/00
Instruments for measuring torque, adapted for special purposes	G01L 5/00
Testing static or dynamic balance of machines or structures	G01M 1/00
Arrangements for measuring frequencies of electronic signals	G01R 23/00
Adjusting escapements	G04B 15/12
Mechanisms for setting frequency of mechanically-driven clocks or watches	G04B 18/00
Time-interval measuring	G04F

G04D 9/00**Demagnetising devices****Definition statement**

This place covers:

Devices or apparatus used for removing the magnetic field from clocks or watches or from parts thereof.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Demagnetising devices in general	H01F 13/00
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