**CPC COOPERATIVE PATENT CLASSIFICATION**

**A HUMAN NECESSITIES**

**HEALTH; AMUSEMENT**

**A61 MEDICAL OR VETERINARY SCIENCE; HYGIENE**

**A61B DIAGNOSIS; SURGERY; IDENTIFICATION** (analysing biological material G01N, e.g. G01N 33/48; obtaining records using waves other than optical waves, in general G03B 42/00)

**NOTE**

This subclass covers instruments, implements and processes for diagnostic, surgical and person-identification purposes, including obstetrics, instruments for cutting corns, vaccination instruments, finger-printing, psycho-physical tests.

**WARNINGS**

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

   - A61B 17/03 covered by A61B 17/00
   - A61B 17/125 covered by A61B 17/122
   - A61B 17/138 covered by A61B 17/12
   - A61B 17/76 covered by A61B 17/744
   - A61B 17/90 covered by A61B 17/88, A61B 2017/90
   - A61B 17/94 covered by A61B 17/29

2. 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.

**Diagnosis; Psycho-physical tests**

1/00 Instruments for performing medical examinations of the interior of cavities or tubes of the body by visual or photographic inspection, e.g. endoscopes (examination of body cavities or body tracts using ultrasonic, sonic or infrasonic waves A61B 8/12; instruments, e.g. endoscopes, for taking a cell sample A61B 10/00; endoscopic cutting instruments A61B 17/32; surgical instruments using a laser beam being directed along or through a flexible conduit A61B 18/22; technical endoscopes G02B 23/24; Illuminating arrangements therefor (for the eyes A61B 3/00)

   - 1/00001 [Operational features of endoscopes]
   - 1/00004 [characterised by electronic signal processing]
   - 1/00006 [of control signals]
   - 1/00009 [of image signals (G06T takes precedence)]
   - 1/00011 [characterised by data transmission]
   - 1/00013 [using optical means]
   - 1/00016 [using wireless means]
   - 1/00018 [using electrical cables]
   - 1/0002 [provided with data storages]
   - 1/00022 [removable]
   - 1/00025 [characterised by power management]
   - 1/00027 [characterised by power supply]
   - 1/00029 [externally powered, e.g. wireless]
   - 1/00032 [internally powered]
   - 1/00034 [rechargeable]
   - 1/00036 [Means for power saving, e.g. sleeping mode]
   - 1/00039 [provided with data input arrangements for the user]
   - 1/00041 [for user message recording]
   - 1/00043 [provided with signal output arrangements]
   - 1/00045 [Display arrangement]
   - 1/00048 [Constructional features of the display]
   - 1/0005 [for multiple images]
   - 1/00052 [positioned at proximal end of the endoscope body]
   - 1/00055 [for alerting the user]
   - 1/00057 [provided with means for testing or calibration]
   - 1/00059 [provided with identification means for the endoscope]
   - 1/0006 [provided with means for preventing overuse]
   - 1/00064 [Constructional details of the endoscope body]
   - 1/00066 [Proximal part of endoscope body, e.g. handles (A61B 1/0052 takes precedence)]
   - 1/00068 [Valve switch arrangements]
   - 1/00071 [Insertion part of the endoscope body (A61B 1/0055 takes precedence)]
   - 1/00073 [with externally grooved shaft]
   - 1/00075 [with externally roughened shaft]
   - 1/00078 [with stiffening means]
   - 1/0008 [characterised by distal tip features]
   - 1/00082 [Balloons]
   - 1/00085 [Baskets]
   - 1/00087 [Tools (A61B 17/00234 takes precedence)]
   - 1/00089 [Hoods]
   - 1/00091 [Nozzles]
   - 1/00094 [Suction openings]
   - 1/00096 [Optical elements]
   - 1/00098 [Deflecting means for inserted tools]
   - 1/00101 [the distal tip features being detachable]
Diagnosis; Psycho-physical tests

Flexible endoscopes takes precedence } { Optical arrangements ( A61B 1/002, A61B 1/06 take precedence) }

I/003 ... [designed for single use] I/005 ... [using distributed actuators, e.g. artificial muscles] I/007 ... [using light-conductive means, e.g. fibre optics (A61B 1/07 takes precedence)]

I/008 ... [characterised by self-sufficient functionality for stand-alone use] I/0055 ... [Constructional details of insertion parts, e.g. vertebral elements] I/009 ... [for 90 degrees side-viewing] I/0056 ... [the insertion parts being asymmetric, e.g. for unilateral bending mechanisms]

I/011 ... [Manufacturing of endoscope parts] I/0057 ... [Constructional details of force transmission elements, e.g. control wires] I/012 ... [characterised by internal passages or accessories therefor]

I/014 ... [Fastening elements for attaching accessories to the outside of an endoscope shaft, e.g. clips, clamps or bands] I/0125 ... [Endoscope within endoscope]

I/016 ... [using motor drive units] I/015 ... Control of fluid supply or evacuation I/018 ... for receiving instruments

I/017 ... [Details of single optical fibres, e.g. material or cladding] I/04 ... combined with photographic or television appliances (camera adapters G03B 17/48)
Diagnosis; Psycho-physical tests

3/00 Apparatus for testing the eyes; Instruments for examining the eyes (eye inspection using ultrasonic, sonic or infrasonic waves A61B 8/10; devices for treatment of the eyes A61F 9/00; exercisers for the eyes A61H 5/00; optical systems in general G02B)

3/0008 . [provided with illuminating means (A61B 3/117 takes precedence); gonioscopes for laser treatment A61F 9/009; illuminating means for optical instruments G02B 27/00)]

3/0016 . [Operational features thereof]
3/0025 . [characterised by electronic signal processing, e.g. eye models]
3/0033 . [characterised by user input arrangements]
3/0041 . [characterised by display arrangements]
3/005 . [Constructional features of the display]
3/0058 . . . [for multiple images]
3/0066 . . . [with identification means for the apparatus]
3/0075 . [provided with adjusting devices, e.g. operated by control lever (manipulators B25J)]
3/0083 . [provided with means for patient positioning]
3/0091 . [Fixation targets for viewing direction]
3/02 . Subjective types, i.e. testing apparatus requiring the active assistance of the patient
3/022 . . . [for testing contrast sensitivity]
3/024 . . . for determining the visual field, e.g. perimeter types
3/028 . . . for testing visual acuity; for determination of refraction, e.g. phoropters
3/0285 . . . [Phoropters]
3/032 . Devices for presenting test symbols or characters, e.g. test chart projectors (A61B 3/036 takes precedence)
3/0325 . . . [provided with red and green targets]
3/036 . . . for testing astigmatism
3/04 . . . Trial frames; Sets of lenses for use therewith (lenses per se G02C 7/02)
3/06 . . . for testing light sensitivity, e.g. adaptation; for testing colour vision
3/063 . . . [for testing light sensitivity, i.e. adaptation]
3/066 . . . [for testing colour vision]
3/08 . . . for testing binocular or stereoscopic vision, e.g. strabismus
3/085 . . . [for testing strabismus]
3/09 . . . for testing accommodation
3/10 . Objective types, i.e. instruments for examining the eyes independent of the patients' perceptions or reactions
3/1005 . . . [for measuring distances inside the eye, e.g. thickness of the cornea (A61B 3/11 takes precedence)]
3/101 . . . [for examining the tear film]
3/1015 . . . [for wavefront analysis]
3/102 . . . [for optical coherence tomography [OCT]]
3/1025 . . . [confocal scanning]
3/103 . . . for determining refraction, e.g. refractometers, skiascopes
3/1035 . . . [for measuring astigmatism (testing astigmatism A61B 3/036)]
3/107 . . . for determining the shape or measuring the curvature of the cornea
3/11 . . . for measuring interpupillary distance or diameter of pupils
3/111 . . . [for measuring interpupillary distance]
3/112 . . . [for measuring diameter of pupils]
3/113 . . . for determining or recording eye movement
3/117 . . . for examining the anterior chamber or the anterior chamber angle, e.g. gonioscopes
3/1173 . . . [for examining the eye lens]
3/1176 . . . . . . [for determining lens opacity, e.g. cataract]
3/12 . . . for looking at the eye fundus, e.g. ophthalmoscopes (A61B 3/13 takes precedence)
3/1208 . . . [Multiple lens hand-held instruments]
3/1216 . . . [for diagnostics of the iris]
3/1225 . . . [using coherent radiation]
3/1233 . . . . . . [for measuring blood flow, e.g. at the retina]
3/1241 . . . . . . . . . . . . . . . . [specially adapted for observation of ocular blood flow, e.g. by fluorescein angiography]
3/125 . . . with contact lenses (contact lenses per se G02C 7/04)
3/13 . . . Ophthalmic microscopes
3/132 . . . . . . . . [in binocular arrangement]
3/135 . . . Slit-lamp microscopes
3/14 . . . Arrangements specially adapted for eye photography ((apparatus or arrangements for taking photographs per se G03B)
3/145 . . . [by video means]
3/15 . . . with means for aligning, spacing or blocking spurious reflection [; with means for relaxing]
3/152 . . . . . . . . [for aligning]
3/154 . . . . . . . . [for spacing]
3/156 . . . . . . . . [for blocking]
3/158 . . . . . . . . . . . . . . . . [of corneal reflection]
3/16 . . . for measuring intraocular pressure, e.g. tonometers
3/165 . . . . . . . . [Non-contacting tonometers]
3/18 . . . Arrangement of plural eye-testing or -examining apparatus
3/185 . . . . . . . . [characterised by modular construction]
5/00 Detecting, measuring or recording for diagnostic purposes (radiation diagnosis A61B 6/00; diagnosis by ultrasonic, sonic or infrasonic waves A61B 8/00); Identification of persons
Diagnosis; Psycho-physical tests

5/0002 . . [Remote monitoring of patients using telemetry, e.g. transmission of vital signals via a communication network (A61B 5/07 takes precedence; transmission systems for measured values G08C; transmission H04B; transmission of digital information H04L; wireless communication networks H04W)]

5/0004 . . [characterised by the type of physiological signal transmitted]

5/0006 . . [ECG or EEG signals]

5/0008 . . [Temperature signals]

5/0011 . . [Foetal or obstetric data]

5/0013 . . [Medical image data (A61B 1/0001, A61B 6/56, A61B 8/56 take precedence)]

5/0015 . . [characterised by features of the telemetry system]

5/0017 . . [transmitting optical signals (transmission by light H04B 1/00)]

5/002 . . [Monitoring the patient using a local or closed circuit, e.g. in a room or building (A61B 5/0017 takes precedence)]

5/0022 . . [Monitoring a patient using a global network, e.g. telephone networks, internet]

5/0024 . . [for multiple sensor units attached to the patient, e.g. using a body or personal area network]

5/0026 . . [characterised by the transmission medium]

5/0028 . . [Body tissue as transmission medium, i.e. transmission systems where the medium is the human body]

5/0031 . . [Implanted circuitry]

5/0033 . . [Features or image-related aspects of imaging apparatus classified in A61B 5/00, e.g. for MRI, optical tomography or impedance tomography apparatus; arrangements of imaging apparatus in a room (image data processing or generation G06T)]

5/0035 . . [adapted for acquisition of images from more than one imaging mode, e.g. combining MRI and optical tomography]

5/0036 . . [including treatment, e.g., using an implantable medical device, ablating, ventilating]

WARNING

Group A61B 5/0036 is incomplete pending reclassification of documents from groups A61B 5/0033 and A61B 5/4836.

Groups A61B 5/0033, A61B 5/0036 and A61B 5/4836 should be considered in order to perform a complete search.

5/0037 . . [Performing a preliminary scan, e.g. a prescan for identifying a region of interest]

5/004 . . [adapted for image acquisition of a particular organ or body part (A61B 5/0082 takes precedence; arrangements for optical scanning A61B 5/0062)]

5/0042 . . [for the brain]

5/0044 . . [for the heart]

5/0046 . . [Arrangements of imaging apparatus in a room, e.g. room provided with shielding or for improved access to apparatus]

5/0048 . . [Detecting, measuring or recording by applying mechanical forces or stimuli (A61B 5/021, A61B 5/4884 and A61B 5/90 take precedence)]

5/0051 . . [by applying vibrations]
Diagnosis; Psycho-physical tests

5/021 . . . Measuring pressure in heart or blood vessels
(A61B 5/0205 takes precedence)

5/02108 . . . [from analysis of pulse wave characteristics]

5/02116 . . . [of pulse wave amplitude (A61B 5/02225]
takes precedence)]

5/02125 . . . [of pulse wave propagation time]

5/02133 . . . [by using induced vibration of the blood vessel]

5/02141 . . . [Details of apparatus construction, e.g. pump
units or housings therefor, cuff pressureing
systems, arrangements of fluid conduits or
circuits (A61B 5/02233, A61B 5/02435 take precedence)]

5/0215 . . . by means inserted into the body (catheters
A61M 5/20)

5/02152 . . . [specially adapted for venous pressure]

5/02154 . . . [by optical transmission]

5/02156 . . . [Calibration means]

5/02158 . . . [provided with two or more sensor
elements]

5/022 . . . by applying pressure to close blood vessels,
e.g. against the skin; Ophthalmodynamometers

5/02208 . . . [using the Korotkoff method]

5/02216 . . . [Ophthalmodynamometers]

5/02225 . . . [using the oscillographic method]

5/02233 . . . [Occluders specially adapted therefor
(tourniquets A61B 5/1732)]

5/02241 . . . [of small dimensions, e.g. adapted to
fingers]

5/0225 . . . the pressure being controlled by electric
signals, e.g. derived from Korotkoff sounds

5/02255 . . . [the pressure being controlled by
plethysmographic signals, e.g. derived
from optical sensors]

5/023 . . . the pressure transducers comprising a liquid
column

5/0235 . . . Valves specially adapted therefor

5/024 . . . Detecting, measuring or recording pulse rate
or heart rate (A61B 5/0205, A61B 5/021 take precedence)

5/02405 . . . [Determining heart rate variability]

5/02411 . . . [of foetuses]

5/02416 . . . [using photoplethysmograph signals, e.g.
generated by infra-red radiation (A61B 5/14552
takes precedence)]

5/02422 . . . [within occluders]

5/02427 . . . [Details of sensor]

5/02433 . . . [for infra-red radiation]

5/02438 . . . [with portable devices, e.g. worn by the
patient]

5/02444 . . . [Details of sensor (A61B 5/02427 takes
precedence)]

5/0245 . . . by using sensing means generating electric
signals, i.e. ECG signals]

5/02455 . . . [provided with high/low alarm devices]

5/025 . . . within occluders, e.g. responsive to
Korotkoff sounds (electric stethoscopes
A61B 7/04)

5/0255 . . . Recording instruments specially adapted
therefor

5/026 . . . Measuring blood flow ((A61B 3/1233,
A61B 3/1241 take precedence))

5/0261 . . . [using optical means, e.g. infra-red light]

5/0263 . . . [using NMR]

5/0265 . . . using electromagnetic means, e.g.
electromagnetic flowmeter

5/027 . . . using catheters

5/0275 . . . using tracers, e.g. dye dilution

5/02755 . . . [Radioactive tracers]

5/028 . . . by thermo-dilution

5/0285 . . . Measuring or recording phase velocity of blood
waves

5/029 . . . Measuring or recording blood output from the
heart, e.g. minute volume ((A61B 8/065 takes
precedence)]

5/0295 . . . using plethysmography, i.e. measuring the
variations in the volume of a body part
as modified by the circulation of blood
therethrough, e.g. impedance plethysmography

5/03 . . . Detecting, measuring or recording fluid pressure
within the body other than blood pressure, e.g.
cerebral pressure; (Measuring pressure in body
issues or organs (A61B 5/0205 take precedence)

5/031 . . . [Intracranial pressure]

5/032 . . . [Spinal fluid pressure]

5/033 . . . [Uterine pressure]

5/035 . . . [Intra-uterine probes therefor]

5/036 . . . [by means introduced into body tracts
(A61B 5/032 and A61B 5/035 take precedence)]

5/037 . . . [Measuring oesophageal pressure]

5/038 . . . [Measuring oral pressure]

5/04 . . . Measuring bioelectric signals of the body or parts
thereof

5/04001 . . . [adapted to neuroelectric signals, e.g. nerve
impulses]

5/04002 . . . [Measuring direct current (D.C.) or slowly
varying biopotentials]

5/04004 . . . [Input circuits for EEG-, or EMG-signals]

5/04005 . . . [Detecting magnetic fields produced by bio-
electric currents (measuring magnetic variables in
general G01R 33/00)]

5/04007 . . . [specially adapted for magnetocardiographic
signals]

5/04008 . . . [specially adapted for magneto-
encephalographic signals]

5/04009 . . . [by measuring evoked response]

5/04011 . . . [Vector-cardiography]

5/04012 . . . [Analysis of electro cardiograms, electro-
encephalograms, electro-myograms]

5/04014 . . . [by measuring frequency distribution using
a set of filters (arrangements for analysing
frequency spectra in general G01R 23/00)]

5/04015 . . . [provided with alarm devices]

5/04017 . . . [by using digital filtering]

5/04018 . . . [provided with alarm devices]

5/0402 . . . Electrocardiography, i.e. ECG

5/04021 . . . [EGG simulator circuits]

5/04023 . . . [Physical templates or devices for measuring
ECG waveforms, e.g. an electrocardiograph
ruler or caliper (A61B 5/0425 take precedence)]

5/04025 . . . [Preparing electrode site, e.g. by abrasion]

5/04026 . . . [Means for providing electrolyte, e.g. syringes]

5/04028 . . . [Generation of artificial ECG signals based
on measured signals, e.g. to compensate for
missing leads]

5/0404 . . . Hand-held devices
Electrodes specially adapted therefor (for foetal cardiology A61B 5/0448; for electroencephalograph signals A61B 5/0478; for electromyography A61B 5/0492)

[Attached by means of suction]

[Multiple electrode holders (A61B 5/0426, A61B 5/0422 take precedence)]

[Using conductive adhesive means]

[Connected by means of snap fasteners]

[For introducing into the body]

[Endotracheal, oesophageal or gastric probes]

[Multiple electrode holders]

[Protection against electrode failure]

[Input circuits specially adapted therefor]

[Using insulating or floating elements, e.g. transformers, opto-couplers (transformers for specific applications H01F 38/00; amplifiers H03F; opto-couplers H04B 10/80)]

[Capacitive or ionised electrodes, e.g. MOSFET]

[Patient cord assembly, e.g. cable harness]

[Switching circuits]

[Recording apparatus specially adapted therefor]

[Using integrated circuit memory devices]

[Magnetic recording apparatus]

[Playback at speeds other than the recording speed]

[Displays specially adapted therefor (arrangements for displaying electric variables or waveforms, e.g. cathode-ray oscilloscopes, G01R 13/00)]

[Foetal cardiology]

[Electrodes specially adapted therefor, e.g. scalp electrodes]

[Attached by means of suction]

[Detecting specific parameters of the electrocardiograph cycle]

[By template matching]

[Detecting R peaks, e.g. for synchronising diagnostic apparatus (physiological signal analysis for synchronising or triggering a measurement or image acquisition A61B 5/7285)]

[Detecting fibrillation]

[Detecting tachycardia or bradycardia]

[Detecting abnormal ECG interval, e.g. extrasystoles, ectopic heartbeats]

[Detecting abnormal QRS complex, e.g. widening]

[Electroencephalography (devices for psychotechnics A61B 5/16)]

[Electrodes specially adapted therefor]

[Detecting the frequency distribution of signals (analysing frequency spectra in general G01R 23/00)]

[Using biofeedback (biofeedback per se A61B 5/486)]

[Using evoked response]

[Visually]

[Acoustically or auditorily]

[Olfactory or gustatory]

Electromyography

**WARNING**

Group A61B 5/0488 is incomplete pending reclassification of documents from group A61B 5/0488.

Groups A61B 5/0488 and A61B 5/04888 should be considered in order to perform a complete search.

[Of genito-urinary organs]

[Detecting gastro-intestinal contractions]

[Specially adapted for electroglottography or electropalatography]

[Control of prosthetics]

**FROZEN**

Electrodes specially adapted therefor, e.g. needle electrodes

[Electro-oculography, e.g. detecting nystagmus (measuring or inducing nystagmus A61B 5/4863)]

[Measuring using microwaves or radiowaves by means of electric currents or magnetic fields; means for positioning of patients (for radiation diagnosis or therapy A61B 6/04)]

[Measuring electrical impedance or conductance of a portion of the body]

[Measuring skin impedance]

[Specially adapted for acupuncture]

[Measuring galvanic skin response, e.g. by lie detector]

[Testing vitality of teeth]

[Impedance imaging, e.g. by tomography]

[Measuring body composition by impedance, e.g. tissue hydration or fat content]

[Invasively, e.g. using a catheter]

[Involving electronic [EMR] or nuclear [NMR] magnetic resonance, e.g. magnetic resonance imaging]

[Means for positioning of patients (for radiation diagnosis or therapy A61B 6/04)]

[Devices, other than using radiation, for detecting or locating foreign bodies (for removing same A61B 17/50); determining position of probes within or on the body of the patient]
5/061 . . . (Determining position of a probe within the body employing means separate from the probe, e.g. sensing internal probe position employing impedance electrodes on the surface of the body (A61B 1/00158 takes precedence))
5/062 . . . [using magnetic field]
5/063 . . . [using impedance measurements]
5/064 . . . [using markers (A61B 5/062 takes precedence)]
5/065 . . . (Determining position of the probe employing exclusively positioning means located on or in the probe, e.g. using position sensors arranged on the probe)
5/066 . . . [Superposing sensor position on an image of the patient, e.g. obtained by ultrasound or x-ray imaging]
5/067 . . . [using accelerometers or gyroscopes]
5/068 . . . [using impedance sensors]
5/07 . . . Endoradiosodes
5/073 . . . [Intestinal transmitters]
5/08 . . . Detecting, measuring or recording devices for evaluating the respiratory organs (A61B 5/0205 takes precedence)
5/0803 . . . [Recording apparatus specially adapted therefor]
5/0806 . . . [by whole-body plethysmography (measuring blood flow using plethysmography A61B 5/0295; impedance plethysmography A61B 5/053; measuring volume of the body or parts thereof A61B 5/1073)]
5/0809 . . . [by impedance pneumography]
5/0813 . . . [Measurement of pulmonary parameters by tracers, e.g. radioactive tracers]
5/0816 . . . [Measuring devices for examining respiratory frequency (measuring frequency of electric signals G01R 23/00)]
5/082 . . . [Evaluation by breath analysis, e.g. determination of the chemical composition of exhaled breath (A61B 5/083, A61B 5/091 take precedence)]
5/0823 . . . [Detecting or evaluating cough events]
5/0826 . . . [Detecting or evaluating apnoea events (A61B 5/4818 takes precedence)]
5/083 . . . [Measuring rate of metabolism by using breath test, e.g. measuring rate of oxygen consumption]
5/0833 . . . [Measuring rate of oxygen consumption]
5/0836 . . . [Measuring rate of CO₂ production]
5/085 . . . [Measuring impedance of respiratory organs or lung elasticity]
5/087 . . . [Measuring blood flow]
5/0871 . . . [Peak expiratory flowmeters]
5/0873 . . . [using optical means]
5/0875 . . . [using means carried by the fluid stream, e.g. free floating balls]
5/0876 . . . [using means deflected by the fluid stream, e.g. flaps]
5/0878 . . . [using temperature sensing means]
5/09 . . . [using an element rotated by the flow (toys actuated by air current A63H 33/40)]
5/091 . . . [Measuring volume of inspired or expired gases, e.g. to determine lung capacity]
5/093 . . . the gases being exhaled into, or inhaled from, an expandable chamber, e.g. bellows or expandable bag
5/0935 . . . [Recording apparatus specially adapted therefor]
5/095 . . . within a rigid container, e.g. the boundary being formed by a liquid surface
5/097 . . . [Devices for facilitating collection of breath or for directing breath into or through measuring devices]
5/103 . . . Detecting, measuring or recording devices for testing the shape, pattern, (colour,) size or movement of the body or parts thereof, for diagnostic purposes (A61B 5/08 takes precedence; measuring aids for tailors A41H 1/00; measuring instruments specially adapted for dentistry A61C 19/04)
5/1032 . . . [Determining colour for diagnostic purposes (measuring colour in general G01J 3/46)]
5/1034 . . . [by means of colour cards]
5/1036 . . . [Measuring load distribution, e.g. podologic studies]
5/1038 . . . [Measuring plantar pressure during gait]
5/107 . . . [Measuring physical dimensions, e.g. size of the entire body or parts thereof]
5/1071 . . . [measuring angles, e.g. using goniometers (A61B 5/1123 takes precedence)]
5/1072 . . . [measuring distances on the body, e.g. measuring length, height or thickness (A61B 5/1076 takes precedence)]
5/1073 . . . [Measuring volume, e.g. of limbs]
5/1074 . . . [Foot measuring devices]
5/1075 . . . [for measuring dimensions by non-invasive methods, e.g. for determining thickness of tissue layer (A61B 8/0858 takes precedence)]
5/1076 . . . [for measuring dimensions inside body cavities, e.g. using catheters (A61B 3/1005 takes precedence)]
5/1077 . . . [Measuring of profiles]
5/1078 . . . [by moulding]
5/1079 . . . [using optical or photographic means]
5/11 . . . [Measuring movement of the entire body or parts thereof, e.g. head or hand tremor, mobility of a limb (for measuring pulse A61B 5/02)]
5/1101 . . . [Detecting tremor]
5/1102 . . . [Ballistocardiography]
5/1103 . . . [Detecting eye twinkling]
5/1104 . . . [induced by stimuli or drugs; (A61B 5/1102 takes precedence; investigating medicinal preparations G01N 33/15)]
5/1105 . . . [of laboratory animals, e.g. activity]
5/1106 . . . [to assess neuromuscular blockade, e.g. to estimate depth of anaesthesia]
5/1107 . . . [Measuring contraction of parts of the body, e.g. organ, muscle (apparatus for measuring work or force in general G01L)]
5/1108 . . . [of excised organs, e.g. muscle preparations]
5/1109 . . . [of wounds, e.g. at the operation site]
5/1111 . . . [Detecting tooth mobility]
5/1112 . . . [Global tracking of patients, e.g. by using GPS]
Diagnosis; Psycho-physical tests

A61B

5/113 . . . [Local tracking of patients, e.g. in a hospital or private home]
5/114 . . . . [Tracking parts of the body]
5/115 . . . . [Monitoring leaving of a patient, support, e.g. a bed or a wheelchair]
5/116 . . . . [Determining posture transitions]
5/117 . . . . [Fall detection]
5/118 . . . . [Determinating activity level]
5/119 . . . [Gait analysis]
5/112 . . . . [Determining geometric values, e.g. centre of rotation or angular range of movement]
5/121 . . . . [of movement trajectories]
5/123 . . . . [Discriminating type of movement, e.g. walking or running (A61B 5/1116, A61B 5/112 take precedence)]
5/124 . . . . [Determining motor skills]
5/125 . . . . [Grasping motions of hands]
5/126 . . . . [using a particular sensing technique]
5/127 . . . . [using markers]
5/128 . . . . [using image analysis (A61B 5/1127 takes precedence)]
5/113 . . . occurring during breathing
5/1135 . . . . [by monitoring thoracic expansion]
5/117 . . . Identification of persons (methods or arrangements for recognising patterns, e.g. fingerprints, G06K 9/00; identification of persons by analysing their voice or speech G10L 17/00)

WARNING

Group A61B 5/117 is impacted by reclassification into group A61B 5/1171.

Groups A61B 5/117 and A61B 5/1171 should be considered in order to perform a complete search.

5/1171 . . . based on the shapes or appearances of their bodies or parts thereof

WARNING

Group A61B 5/117 is incomplete pending reclassification of documents from group A61B 5/117.

Groups A61B 5/117 and A61B 5/1171 should be considered in order to perform a complete search.

5/1172 . . . using fingerprinting
5/1174 . . . using footprinting
5/1176 . . . . [Recognition of faces]
5/1178 . . . using dental data
5/12 . . . Audiometering {Evaluation or the auditory system, not limited to hearing capacity (A61B 5/04845, A61B 5/4023 take precedence)}
5/121 . . . [evaluating hearing capacity]
5/123 . . . . [subjective methods]
5/125 . . . . [objective methods]
5/126 . . . . [measuring compliance or mechanical impedance of the tympanic membrane]
5/128 . . . . [evaluating tinnitus]

5/14 . . . . [Devices for taking samples of blood (hypodermic syringes A61M 5/00); Measuring characteristics of blood in vivo, e.g. gas concentration within the blood, pH-value of blood (measuring of blood pressure A61B 5/02; non-radiation detecting or locating of foreign bodies in blood A61B 5/06)]

WARNING

This group and its subgroups are no longer used for the classification of new documents as from April 1st, 2010. The backlog of these group is being continuously reclassified to A61B 5/15 and subgroups

5/1405 . . . . [Devices for taking blood samples (devices for taking samples of other body liquids A61B 10/0045)]
5/1411 . . . . . [by percutaneous method, e.g. by lancet]
5/1416 . . . . . [by syringes containing more than one piston (medical syringes in general A61M 5/178)]
5/1422 . . . . [provided with indicating means, e.g. for vein entry]
5/1427 . . . . [Multiple blood sampling, e.g. at periodic or pre-established intervals]
5/1433 . . . . [provided with locking means (details of syringes A61M 5/345)]
5/1438 . . . . [using pre-evacuated means]
5/1444 . . . . . [Safety means, e.g. for locking cannula (removing or disposing of used needles or syringes A61M 5/3205)]
5/145 . . . Measuring characteristics of blood in vivo, e.g. gas concentration, pH value, {Measuring characteristics of body fluids or tissues, e.g. interstitial fluid, cerebral tissue} (measuring of blood pressure or blood flow A61B 5/02, non-radiation detecting or locating of foreign bodies in blood A61B 5/06)
5/14503 . . . [invasive, e.g. introduced into the body by a catheter or needle or using implanted sensors (A61B 5/1459, A61B 5/1464, A61B 5/1473, A61B 5/1482, A61B 5/14865 take precedence)]
5/14507 . . . [specially adapted for measuring characteristics of body fluids other than blood (devices for taking samples of body liquids A61B 10/0045)]
5/1451 . . . . . [for interstitial fluid]
5/14514 . . . . . [using means for aiding extraction of interstitial fluid, e.g. microneedles or suction]
5/14517 . . . . [for sweat]
5/14521 . . . . . [using means for promoting sweat production, e.g. heating the skin (measuring sweat secretion A61B 5/4266)]
5/14525 . . . [using microdialysis]
5/14528 . . . . . [invasively]
5/14532 . . . [for measuring glucose, e.g. by tissue impedance measurement]
5/14535 . . . . [for measuring haematocrit]
5/14539 . . . . [for measuring pH]
5/14542 . . . . . [for measuring blood gases (A61B 5/14551 takes precedence)]
5/14546 . . . . . [for measuring analytes not otherwise provided for, e.g. ions, cytochromes]
5/1455 . . . using optical sensors, e.g. spectral photometrical oximeters
5/14551 . . . . [for measuring blood gases]
Diagnosis; Psycho-physical tests

5/15052 . . . . [Details of sensors specially adapted thereto]  
5/15053 . . . . [specially adapted for cerebral tissue]  
5/15054 . . . . [specially adapted for the eye fundus]  
5/15055 . . . . [by fluorescence (A61B 5/14555 takes precedence)]  
5/15056 . . . . [specially adapted to extracorporeal circuits]  
5/15057 . . . . [by polarisation]  
5/15058 . . . . invasive, e.g. introduced into the body by a catheter (A61B 5/1464 takes precedence)  
5/15059 . . . . specially adapted for foetal tissue  
5/15060 . . . . using chemical or electrochemical methods, e.g. by polargraphic means (A61B 5/1486 takes precedence)  
5/15061 . . . . invasive, e.g. introduced into the body by a catheter (A61B 5/1482 takes precedence)  
5/15062 . . . . comprising an immobilised reagent  
5/15063 . . . . non-invasive  
5/15064 . . . . specially adapted for foetal tissue  
5/15065 . . . . using enzyme electrodes, e.g. with immobilised oxidase  
5/15066 . . . . invasive, e.g. introduced into the body by a catheter or needle or using implanted sensors  
5/15067 . . . . Heated applicators  
5/15068 . . . . Calibrating or testing of in-vivo probes  
5/15069 . . . . Devices for taking samples of blood (hypodermic syringes A61M 5/178)

**NOTE**

In these subgroups, the following terms are used with the meaning indicated:
- "piercing element" means skin penetrating component e.g. blade, needle, lancet, laser beam;  
- "piercing or lancing device" means device ready to be used for lancing;  
- "driving device" means device for driving a piercing element e.g. spring

**WARNING**

This group and its subgroups are not complete pending a reorganisation. See also A61B 5/14, A61B 5/1405 and subgroups

5/150007 . . . . [Details]  
5/150015 . . . . [Source of blood]  
5/150022 . . . . [for capillary blood or interstitial fluid]  
5/150038 . . . . [for blood from umbilical cord]  
5/150045 . . . . [for blood from vagina, placenta, colon or mouth]  
5/150053 . . . . [for enhanced collection of blood or interstitial fluid at the sample site, e.g. by applying compression, heat, vibration, ultrasound, suction or vacuum to tissue; for reduction of pain or discomfort; Skin piercing elements, e.g. blades, needles, lancets or canulas, with adjustable piercing speed]  
5/150061 . . . . [Means for enhancing collection]  
5/150068 . . . . [by tissue compression, e.g. with specially designed surface of device contacting the skin area to be pierced]  
5/150076 . . . . [by heating]  
5/150083 . . . . [by vibration, e.g. ultrasound]  
5/150091 . . . . [by electricity]  
5/150099 . . . . [by negative pressure, other than vacuum extraction into a syringe by pulling on the piston rod or into pre-evacuated tubes]  
5/150106 . . . . [Means for reducing pain or discomfort applied before puncturing; desensitising the skin at the location where body is to be pierced]  
5/150114 . . . . [by tissue compression, e.g. with specially designed surface of device contacting the skin area to be pierced]  
5/150122 . . . . [by heating]  
5/150129 . . . . [by cooling]  
5/150137 . . . . [by vibration (enhancing collection by vibration A61B 5/150175)]  
5/150145 . . . . [by negative pressure, e.g. suction, vacuum]  
5/150152 . . . . [by an adequate mechanical impact on the puncturing location]  
5/15016 . . . . [by accessories for bringing the piercing element into the body, e.g. through rotation of the piercing element]  
5/150167 . . . . [Adjustable piercing speed of skin piercing element, e.g. blade, needle, lancet or canula, for example with varying spring force or pneumatic drive]  
5/150175 . . . . [Adjustment of penetration depth]  
5/150183 . . . . [Depth adjustment mechanism using end caps mounted at the distal end of the sampling device, i.e. the end-caps are adjusably positioned relative to the piercing device housing for example by rotating or screwing]  
5/15019 . . . . [Depth adjustment mechanism using movable stops located inside the piercing device housing and limiting the travel of the drive mechanism (mechanisms using distal end caps A61B 5/150183, mechanisms at the piercing element carrier proximal end A61B 5/150198)]  
5/150198 . . . . [Depth adjustment mechanism at the proximal end of the carrier of the piercing element]  
5/150206 . . . . [Construction or design features not otherwise provided for; manufacturing or production; packages; sterilisation of piercing element, piercing device or sampling device]  
5/150213 . . . . [Venting means]  
5/150221 . . . . [Valves]  
5/150229 . . . . [Pumps for assisting the blood sampling]  
5/150236 . . . . [Pistons, i.e. cylindrical bodies that sit inside the syringe barrel, typically with an air tight seal, and slide in the barrel to create a vacuum or to expel blood]  
5/150244 . . . . [Rods for actuating or driving the piston, i.e. the cylindrical body that sits inside the syringe barrel, typically with an air tight seal, and slides in the barrel to create a vacuum or to expel blood]
Diagnosis; Psycho-physical tests

5/150251 . . . . [Collection chamber divided into at least two compartments, e.g. for division of samples (injection syringes having more than one chamber A61M 5/19; syringes for injection of two or more media A61M 5/2448, A61M 5/284; sample preparation for further analysis A61B 5/150755)]

5/150259 . . . . [Improved gripping, e.g. with high friction pattern or projections on the housing surface or an ergonometic shape]

5/150267 . . . . [Modular design or construction, i.e. subunits are assembled separately before being joined together or the device comprises interchangeable or detachable modules]

5/150274 . . . . [Manufacture or production processes or steps for blood sampling devices]

5/150282 . . . . [for piercing elements, e.g. blade, lancet, canula, needle]

5/15029 . . . . . . . . . . . . [for driving devices, i.e. means for driving the piercing element]

5/150297 . . . . [for piercing devices, i.e. devices ready to be used for lancing or piercing (for piercing elements A61B 5/150282, for driving devices A61B 5/15029)]

5/150305 . . . . [Packages specially adapted for piercing devices or blood sampling devices (kits for diabetes A61M 5/003; packaging in general B65D)]

5/150312 . . . . [Sterilisation of piercing elements, piercing devices or sampling devices (piercing element stocking means, e.g. cartridges, A61B 5/15176)]

5/15032 . . . . . . . . . . . . [by heating]

5/150328 . . . . . . . . . . . . [by aseptic fluid]

5/150335 . . . . . . . . . . . . [by radiation]

5/150343 . . . . [Collection vessels for collecting blood samples from the skin surface, e.g. test tubes, cuvettes (sampling from within body cavities A61B 5/150015, A61B 5/150045)]

5/150351 . . . . [Caps, stoppers or lids for sealing or closing a blood collection vessel or container, e.g. a test-tube or syringe barrel (caps for bottles or containers in general B65D 41/00)]

5/150358 . . . . [Strips for collecting blood, e.g. absorbent (optical reagent test strips G01N 21/8483; chemical reagent test strips G01N 33/4875, G01N 33/52)]

5/150366 . . . . [Blood collection bags, e.g. connected to the patient by a catheter comprising means for removing a small sample of collected blood from the bag (collection bags as such A61J 1/05, A61M 1/0209)]

5/150374 . . . . [Details of piercing elements or protective means for preventing accidental injuries by such piercing elements (double-ended hollow needles A61B 5/150473; A61B 5/150399, single-ended hollow needles A61B 5/150503, A61B 5/150399)]

5/150381 . . . . [Design of piercing elements]

5/150389 . . . . [Hollow piercing elements, e.g. canulas, needles, for piercing the skin]

5/150396 . . . . [Specific tip design, e.g. for improved penetration characteristics]

5/150404 . . . . [Specific design of proximal end]

5/150412 . . . . [Pointed piercing elements, e.g. needles, lancets for piercing the skin (blade-like piercing elements A61B 5/150442)]

5/150419 . . . . . . . . . . . . [comprising means for capillary action]

5/150427 . . . . . . . . . . . . [Specific tip design, e.g. for improved penetration characteristics]

5/150435 . . . . [Specific design of proximal end]

5/150442 . . . . [Blade-like piercing elements, e.g. blades, cutters, knives, for cutting the skin]

5/15045 . . . . [comprising means for capillary action]

5/150458 . . . . [Specific blade design, e.g. for improved cutting and penetration characteristics]

5/150465 . . . . [Specific design of proximal end]

5/150473 . . . . [Double-ended needles, e.g. used with pre-evacuated sampling tubes (hollow piercing element tip design A61B 5/150396; needle sets for catheters A61M 25/06; needles for bringing media into the body A61M 5/32)]

5/15048 . . . . [Details of construction of proximal end]

5/150488 . . . . [Details of construction of shaft]

5/150496 . . . . [Details of construction of hub, i.e. element used to attach the double-ended needle to a piercing device or sampling device]

5/150503 . . . . [Single-ended needles (hollow piercing element tip design A61B 5/150396, needle sets for catheters A61M 25/06, needles for bringing media into the body A61M 5/32)]

5/150511 . . . . [Details of construction of shaft]

5/150519 . . . . [Details of construction of hub, i.e. element used to attach the single-ended needle to a piercing device or sampling device]

5/150526 . . . . [Curved or bent needles]

5/150534 . . . . [Design of protective means for piercing elements for preventing accidental needle sticks, e.g. shields, caps, protectors, axially extensible sleeves, pivotable protective sleeves]

5/150541 . . . . [Breakable protectors, e.g. caps, shields or sleeves, i.e. protectors separated destructively, e.g. by breaking a connecting area]

5/150549 . . . . [Protectors removed by rotational movement, e.g. torsion or screwing]

5/150557 . . . . [Protectors removed by bending]

5/150564 . . . . [Protectors removed by pulling or pushing]

5/150572 . . . . [Pierceable protectors, e.g. shields, caps, sleeves or films, e.g. for hygienic purposes]

5/15058 . . . . [Joining techniques used for protective means]

5/150587 . . . . [by friction fit]

5/150595 . . . . [by snap-lock (i.e. based on axial displacement)]

5/150603 . . . . [by rotation, e.g. bayonet or screw]

5/15061 . . . . [by material engagement, e.g. welding, bonding]
Diagnosis; Psycho-physical tests

5/150618 . . . . . . [Integrally moulded protectors, e.g. protectors simultaneously moulded together with a further component, e.g. a hub, of the piercing element]

5/150625 . . . . . . [by using additional parts, e.g. clamping rings or collets]

5/150633 . . . . . . [Protective sleeves which are axially extensible, e.g. sleeves connected to, or integrated in, the piercing or driving device; pivotal protective sleeves]

5/150641 . . . . . . [comprising means to impede repositioning of protection sleeve from covering to uncovering position]

5/150648 . . . . . . [fully automatically triggered, i.e. the triggering of the protective sleeve does not require a deliberate action by the user such as terminating the contact with the patient's skin]

5/150656 . . . . . . [semi-automatically triggered, i.e. in which the triggering of the protective sleeve requires a deliberate action by the user, e.g. manual release of spring-biased extension means]

5/150664 . . . . [Pivotable protective sleeves, i.e. sleeves connected to, or integrated in, the piercing or driving device, and which are pivoted for covering or uncovering the piercing element]

5/150671 . . . . . . [comprising means to impede repositioning of protection sleeve from covering to uncovering position]

5/150679 . . . . . . [fully automatically triggered, i.e. the triggering of the pivotal protective sleeve does not require a deliberate action by the user such as terminating the contact with the patient's skin]

5/150687 . . . . . . [semi-automatically triggered, i.e. in which the triggering of the pivotal protective sleeve requires a deliberate action by the user such as manual release of spring-biased extension means]

5/150694 . . . . . . [Procedure for removing protection means at the time of piercing]

5/150702 . . . . . . [fully automatically removed, i.e. the removing does not require any action by the user]

5/150709 . . . . . . [semi-automatically removed, i.e. before puncturing the protection is removed by a mechanism initiated by a deliberate action by the user, such as pressing a button]

5/150717 . . . . . . [manually removed]

5/150725 . . . . . . [removal procedure linked to further actions, e.g. cocking of the piercing device, which indicate that the piercing device is used or tempered]

5/150732 . . . [Needle holders, for instance for holding the needle by the hub, used for example with double-ended needle and pre-evacuated tube,]

5/15074 . . . . . . [Needle sets comprising wings, e.g. butterfly type, for ease of handling]

5/150748 . . . . [Having means for aiding positioning of the piercing device at a location where the body is to be pierced (means for aiding positioning of devices for bringing media into the body A61M 5/427, locating blood vessels A61B 5/489)]

5/150755 . . . . [Blood sample preparation for further analysis, e.g. by separating blood components or by mixing]

5/150763 . . . . [with identification means (identification means for surgical instruments A61B 90/90)]

5/15077 . . . . [characterized by physical shape]

5/150778 . . . . [having complementary physical shapes for indexing or registration purposes]

5/150786 . . . . [Optical identification systems, e.g. bar codes, colour codes]

5/150793 . . . . [Electrical or magnetic identification means]

5/150801 . . [Means for facilitating use, e.g. by people with impaired vision; means for indicating when used correctly or incorrectly; means for alarming]

5/150809 . . . . [by audible feedback]

5/150816 . . . . [by tactile feedback, e.g. vibration]

5/150824 . . . . [by visual feedback]

5/150832 . . . . [by topography of the surface, e.g. Braille, embossed printing]

5/150839 . . [Aesthetic features, e.g. distraction means to prevent fears of child patients]

5/150847 . . . [Communication to or from blood sampling device (transmitting measured data A61B 5/0002)]

5/150854 . . . . [long distance, e.g. between patient's home and doctor's office]

5/150862 . . [intermediate range, e.g. within room or building]

5/15087 . . . . [short range, e.g. between console and disposable (using implanted devices A61B 5/150877)]

5/150877 . . . . [with implanted devices]

5/150885 . . [Preventing re-use]

5/150893 . . . . [by indicating if used, tampered with, unsterile or defective]

5/1509 . . . . [by disrupting a seal, e.g. puncturing a piston seal]

5/150908 . . [by disconnecting components, e.g. breaking or rupturing of connected parts, e.g. piston and rod]

5/150916 . . [by blocking components, e.g. piston, driving device or fluid passageway]

5/150923 . . [by means for destroying components or parts, e.g. by cutting or piercing]

5/150931 . . [by including soluble parts]

5/150938 . . [by blunting or disabling needle]

5/150946 . . [Means for varying, regulating, indicating or limiting the speed or time of blood collection]

5/150954 . . [Means for the detection of operative contact with patient, e.g. by temperature sensitive sensor]

5/150961 . . [Means for the detection of the presence or absence of a module, a component or an abnormal condition; detection of leaks]

5/150969 . . [Low-profile devices which resemble patches or plasters, e.g. also allowing collection of blood samples for testing]
Diagnosis; Psycho-physical tests

[Arrays of piercing elements for simultaneous piercing]

[Microneedles or microblades]

[Blood sampling from a fluid line external to a patient, such as a catheter line, combined with an infusion line; blood sampling from indwelling needle sets, e.g., sealable ports, luer couplings, valves (tubing connectors and couplings A61M 39/00)]

[Devices] specially adapted for taking samples of capillary blood, e.g. by lancets [, needles or blades]

[Details]

[Piercing procedure]

{Purely manual piercing, i.e. the user pierces the skin without the assistance of any driving means or driving devices]

{Piercing being assisted by a triggering mechanism}

{Fully automatically triggered, i.e. the triggering does not require a deliberate action by the user, e.g. by contact with the patient's skin]

{Semi-automatically triggered, e.g. at the end of the cocking procedure, for instance by biasing the main drive spring or when reaching sufficient contact pressure, the piercing device is automatically triggered without any deliberate action by the user}

{Manually triggered, i.e. the triggering requires a deliberate action by the user such as pressing a drive button]

[Driving means for propelling the piercing element to pierce the skin, e.g. comprising mechanisms based on shape memory alloys, magnetism, solenoids, piezoelectric effect, biased elements, resilient elements, vacuum or compressed fluids]

[comprising biased elements, resilient elements or a spring, e.g. a helical spring, leaf spring, or elastic strap]

[comprising shape memory alloys]

[comprising piezos]

[comprising magnets or solenoids]

[comprising a vacuum or compressed fluids]

[Means for controlling the lancing movement, e.g. 2D- or 3D-shaped elements, tooth-shaped elements or sliding guides]

[comprising 2D- or 3D-shaped elements, e.g. cams, curved guide rails or threads (comprising tooth-shaped elements A61B 5/15132)]

[comprising linear sliding guides (comprising tooth-shaped elements A61B 5/15132)]

[comprising tooth-shaped elements, e.g. toothed wheel or rack and pinion]

[Bladeless capillary blood sampling devices, i.e. devices for perforating the skin in order to obtain a blood sample but not using a blade, needle, canula, or lancet, e.g. by laser perforation, suction or pressurized fluids]

[by use of radiation, e.g. laser]
Diagnosis; Psycho-physical tests

5/165 . . . [Evaluating the state of mind, e.g. depression, anxiety]
5/167 . . . [Personality evaluation]
5/168 . . . [Evaluating attention deficit, hyperactivity]
5/18 . . for vehicle drivers (or machine operators)
5/20 . for measuring urological functions (restricted to the evaluation of the urinary system (A61B 5/4375 takes precedence)]
5/201 . . . [Assessing renal or kidney functions]
5/202 . . . [Assessing bladder functions, e.g. incontinence assessment]
5/204 . . . [Determining bladder volume]
5/205 . . . [Determining bladder or urethral pressure]
5/207 . . . [Sensing devices adapted to collect urine]
5/208 . . . [adapted to determine urine quantity, e.g. flow, volume]
5/22 . Ergometry; Measuring muscular strength or the force of a muscular blow (exercising apparatus A63B 21/00); measuring of work or force in general G01L)
5/221 . . . [Ergometry, e.g. by using bicycle type apparatus]
5/222 . . . [combined with detection or measurement of physiological parameters, e.g. heart rate]
5/224 . . . [Measuring muscular strength]
5/225 . . . [of the fingers, e.g. by monitoring hand-grip force]
5/227 . . . [of constricting muscles, i.e. sphincters]
5/228 . . . [of masticatory organs, e.g. detecting dental force (measuring instruments for dentigraphy A61C 19/04)]
5/40 . Detecting, measuring or recording for evaluating the nervous system (A61B 5/4806, A61B 5/4821, A61B 5/4824 take precedence]
5/4005 . . . [for evaluating the sensory system (A61B 5/12, A61B 5/4058 take precedence]
5/4011 . . . [Evaluating olfaction, i.e. sense of smell]
5/4017 . . . [Evaluating sense of taste]
5/4023 . . . [Evaluating sense of balance]
5/4029 . . . [for evaluating the peripheral nervous systems (A61B 5/04001 takes precedence]
5/4035 . . . [Evaluating the autonomic nervous system]
5/4041 . . . [Evaluating nerves condition]
5/4047 . . . [afferent nerves, i.e. nerves that relay impulses to the central nervous system]
5/4052 . . . [afferent nerves, i.e. nerves that relay impulses from the central nervous system]
5/4058 . . . [for evaluating the central nervous system (A61B 5/4806, A61B 5/4821 take precedence]
5/4064 . . . [Evaluating the brain (A61B 5/031, A61B 5/0476, A61B 5/14532 take precedence]
5/407 . . . [Evaluating the spinal cord (A61B 5/4896 takes precedence]
5/4076 . . . [Diagnosing or monitoring particular conditions of the nervous system (A61B 5/4821, A61B 5/4824 take precedence]
5/4082 . . . [Diagnosing or monitoring movement diseases, e.g. Parkinson, Huntington or Tourette]
5/4088 . . . [Diagnosing of monitoring cognitive diseases, e.g. Alzheimer, prion diseases or dementia]
5/4094 . . . [Diagnosing or monitoring seizure diseases, e.g. epilepsy]
5/41 . . [Detecting, measuring or recording for evaluating the immune or lymphatic systems]
Diagnosis; Psycho-physical tests

5/411 . . . (Detecting or monitoring allergy or intolerance reactions to an allergenic agent or substance)
5/412 . . . (Detecting or monitoring sepsis)
5/413 . . . (Monitoring transplanted tissue or organ, e.g. for possible rejection reactions after a transplant)
5/414 . . . (Evaluating particular organs or parts of the immune or lymphatic systems)
5/415 . . . [the glands, e.g. tonsils, adenoids or thymus]
5/416 . . . [the spleen]
5/417 . . . [the bone marrow]
5/418 . . . [lymph vessels, ducts or nodes]
5/42 . . . (Detecting, measuring or recording for evaluating the gastrointestinal, the endocrine or the exocrine systems (A61B 1/00, A61B 5/4857, A61B 5/486, A61B 5/4866, A61B 5/4869 take precedence) }
5/4205 . . . (Evaluating swallowing)
5/4211 . . . (Diagnosing or evaluating reflux)
5/4216 . . . (Diagnosing or evaluating gastrointestinal ulcers)
5/4222 . . . (Evaluating particular parts, e.g. particular organs)
5/4227 . . . [endocrine glands, i.e. thyroid, adrenals, hypothalamic, pituitary]
5/4233 . . . [oesophagus]
5/4238 . . . [stomach]
5/4244 . . . [liver]
5/425 . . . [pancreas]
5/4255 . . . [Intestines, colon or appendix]
5/4261 . . . (Evaluating exocrine secretion production (A61B 3/101 takes precedence) )
5/4266 . . . [sweat secretion]
5/4272 . . . [sebum secretion]
5/4277 . . . [saliva secretion]
5/4283 . . . [gastrointestinal secretions, e.g. bile production]
5/4288 . . . [mammary secretions]
5/4294 . . . [vaginal secretions]
5/43 . . . [Detecting, measuring or recording for evaluating the reproductive systems]
5/4306 . . . [for evaluating the female reproductive systems, e.g. gynaecological evaluations]
5/4312 . . . [Breast evaluation or disorder diagnosis (A61B 5/0091 takes precedence)]
5/4318 . . . [Evaluation of the lower reproductive system (A61B 5/4343 takes precedence)]
5/4325 . . . . . . [of the uterine cavities, e.g. uterus, fallopian tubes, ovaries]
5/4331 . . . . . . [of the cervix (A61B 5/435 takes precedence)]
5/4337 . . . . . . [of the vagina]
5/4343 . . . . . . [Pregnancy and labour monitoring, e.g. for labour onset detection]
5/435 . . . . . . (Assessing cervix alteration or dilation)
5/4356 . . . . . . (Assessing uterine contractions (A61B 5/033 takes precedence) )
5/4362 . . . . . . (Assessing foetal parameters)
5/4368 . . . . . . [Sexual arousal evaluation]
5/4375 . . . . . . [for evaluating the male reproductive system]  
5/4381 . . . . . . [Prostate evaluation or disorder diagnosis]
5/4387 . . . . . . [Testicles, seminal vesicles or sperm ducts evaluation]
5/4393 . . . . . . [Sexual arousal or erectile dysfunction evaluation, e.g. tumescence evaluation]
5/44 . . . . . . (Detecting, measuring or recording for evaluating the integumentary system, e.g. skin, hair or nails (A61B 5/117 takes precedence) )
5/441 . . . . . . [Skin evaluation, e.g. for skin disorder diagnosis]
5/442 . . . . . . [Evaluating skin mechanical properties, e.g. elasticity, hardness, texture, wrinkle assessment]
5/443 . . . . . . [Evaluating skin constituents, e.g. elastin, melanin, water]
5/444 . . . . . . [Evaluating skin marks, e.g. mole, nevi, tumour, scar]
5/445 . . . . . . [Evaluating skin irritation or skin trauma, e.g. rash, eczema, wound, bed sore]
5/446 . . . . . . [Scalp evaluation or scalp disorder diagnosis, e.g. dandruff]
5/447 . . . . . . [specially adapted for aiding the prevention of ulcer or pressure sore development, i.e. before the ulcer or sore has developed]
5/448 . . . . . . [Hair evaluation, e.g. for hair disorder diagnosis]
5/449 . . . . . . [Nail evaluation, e.g. for nail disorder diagnosis]
5/45 . . . . . . [For evaluating or diagnosing the musculoskeletal system or teeth (A61B 5/1036, A61B 5/1074, A61B 7/006 take precedence) ]
5/4504 . . . . . . [Bones (A61B 5/4547 takes precedence) ]
5/4509 . . . . . . [Bone density determination]
5/4514 . . . . . . [Cartilage]
5/4519 . . . . . . [Muscles (A61B 5/488, A61B 5/224 take precedence) ]
5/4523 . . . . . . [Tendons]
5/4528 . . . . . . [Joints (A61B 5/4533, A61B 5/4538 take precedence) ]
5/4533 . . . . . . [Ligaments]
5/4538 . . . . . . [Evaluating a particular part of the musculoskeletal system or a particular medical condition]
5/4542 . . . . . . [Evaluating the mouth, e.g. the jaw]
5/4547 . . . . . . [Evaluating teeth]
5/4552 . . . . . . [Evaluating soft tissue within the mouth, e.g. gums or tongue]
5/4557 . . . . . . [Evaluating bruxism]
5/4561 . . . . . . [Evaluating static posture, e.g. undesirable back curvature (A61B 5/1116 takes precedence) ]
5/4566 . . . . . . [Evaluating the spine (A61B 5/4561 takes precedence) ]
5/4571 . . . . . . [Evaluating the hip]
5/4576 . . . . . . [Evaluating the shoulder]
5/458 . . . . . . [Evaluating the elbow]
5/4585 . . . . . . [Evaluating the knee]
5/459 . . . . . . [Evaluating the wrist]
5/4595 . . . . . . [Evaluating the ankle]
5/48 . . . . . . [Other medical applications]
5/4803 . . . . . . [Speech analysis specially adapted for diagnostic purposes]
5/4806 . . . . . . [Sleep evaluation (A61B 5/4821 takes precedence; devices for inducing sleep A61M 21/02) ]
5/4809 . . . . . . [Sleep detection, i.e. determining whether a subject is asleep or not]
5/4812 . . . . . . [Detecting sleep stages or cycles]
5/4815 . . . . . . [Sleep quality]
5/4818 . . . . . . [Sleep apnoea]
5/4821 . . . [Determining level or depth of anaesthesia (A61B 5/1106 takes precedence)]
5/4824 . . . [Touch or pain perception evaluation (A61B 5/4821 takes precedence)]
5/4827 . . . [assessing touch sensitivity, e.g. for evaluation of pain threshold]
5/483 . . . . [by thermal stimulation]
5/4833 . . . [Assessment of subject’s compliance to treatment]
5/4836 . . . [Diagnosis combined with treatment in closed-loop systems or methods (A61B 5/0036 takes precedence)]

**WARNING**

Group A61B 5/4836 is impacted by reclassification into A61B 5/0036.

Groups A61B 5/0036 and A61B 5/4836 should be considered in order to perform a complete search.

5/4839 . . . . [combined with drug delivery]
5/4842 . . . [Monitoring progression or stage of a disease]
5/4845 . . . [Toxicology, e.g. by detection of alcohol, drug or toxic products (A61B 5/4848 takes precedence)]
5/4848 . . . [Monitoring or testing the effects of treatment, e.g. of medication]
5/4851 . . . [Prosthesis assessment or monitoring]

**WARNING**

Group A61B 5/4851 is incomplete pending reclassification of documents from group A61B 5/4888.

Groups A61B 5/4851 and A61B 5/04888 should be considered in order to perform a complete search.

5/4854 . . . [Diagnosis based on concepts of traditional oriental medicine]
5/4857 . . . [Indicating the phase of biorhythm (clocks or watches with indicators for biological cycles G04B 19/264)]
5/486 . . . [Bio-feedback (A61B 5/0482 takes precedence)]
5/4863 . . . [Measuring or inducing nystagmus]
5/4866 . . . [Evaluating metabolism (A61B 5/083 takes precedence)]
5/4869 . . . [Determining body composition]
5/4872 . . . [Body fat]
5/4875 . . . [Hydration status, fluid retention of the body]
5/4878 . . . . [Evaluating oedema]
5/4881 . . . [Determining interstitial fluid distribution or content within body tissue (measuring analytes in interstitial fluid in-vivo A61B 5/1451)]
5/4884 . . . [inducing physiological or psychological stress, e.g. applications for stress testing]
5/4887 . . . [Locating particular structures in or on the body]
5/489 . . . [Blood vessels]
5/4893 . . . [Nerves]
5/4896 . . . [Epidural space]
5/68 . [Arrangements of detecting, measuring or recording means, e.g. sensors, in relation to patient]
5/6801 . . . . [specially adapted to be attached to or worn on the body surface]
5/6802 . . . [Sensor mounted on worn items]
5/6803 . . . [Head-worn items, e.g. helmets, masks, headphones or goggles]

5/6804 . . . . [Garments; Clothes]
5/6805 . . . . [Vests]
5/6806 . . . . [Gloves]
5/6807 . . . . [Footwear]
5/6808 . . . . [Diapers]
5/681 . . . [Wristwatch-type devices]
5/6811 . . . [External prostheses]
5/6812 . . . . [Orthopaedic devices]
5/6813 . . . . [Specially adapted to be attached to a specific body part (A61B 5/6802 takes precedence)]
5/6814 . . . . . [Head]
5/6815 . . . . . [Ear]
5/6816 . . . . . [Ear lobe]
5/6817 . . . . . [Ear canal]
5/6819 . . . . . [Nose]
5/682 . . . . . [Mouth, e.g., oral cavity; tongue; Lips; Teeth]
5/6821 . . . . . [Eye]
5/6822 . . . . . [Neck]
5/6823 . . . . . [Trunk, e.g., chest, back, abdomen, hip]
5/6824 . . . . . [Arm or wrist]
5/6825 . . . . . [Hand]
5/6826 . . . . . [Finger]
5/6828 . . . . . [Leg]
5/6829 . . . . . [Foot or ankle]
5/683 . . . . . . [Means for maintaining contact with the body (A61B 5/6802 takes precedence)]
5/6831 . . . . . [Straps, bands or harnesses]
5/6832 . . . . . [using adhesives (A61B 5/04087 takes precedence)]

**WARNING**

Group A61B 5/6832 is impacted by reclassification into group A61B 5/6833.

Groups A61B 5/6832 and A61B 5/6833 should be considered in order to perform a complete search.

5/6833 . . . . [Adhesive patches]
5/6835 . . . . [including release sheets or liners]

**WARNING**

Group A61B 5/6835 is incomplete pending reclassification of documents from group A61B 5/6832.

Groups A61B 5/6832 and A61B 5/6833 should be considered in order to perform a complete search.

5/6834 . . . . [using vacuum]
5/6835 . . . . [Supports or holders, e.g., articulated arms]
5/6837 . . . . [Sutures]
5/6838 . . . . [Clamps or clips]
5/6839 . . . . [Anchoring means, e.g. bars]
5/684 . . . . . [Indicating the position of the sensor on the body]
5/6841 . . . . . [by using templates]
5/6842 . . . . . [by marking the skin]
5/6843 . . . . . [Monitoring or controlling sensor contact pressure]
5/6844 . . . . . [Monitoring or controlling distance between sensor and tissue]
5/6846 . . . . . [specially adapted to be brought in contact with an internal body part, i.e. invasive]
Diagnosis; Psycho-physical tests

5/6847 . . . [mounted on an invasive device]
5/6848 . . . [Needles]
5/6849 . . . [in combination with a needle set]
5/685 . . . [Microneedles]
5/6851 . . . [Guide wires]
5/6852 . . . [Catheters]
5/6853 . . . [with a balloon]
5/6855 . . . [with a distal curved tip]
5/6856 . . . [with a distal loop]
5/6857 . . . [with a distal pigtial shape]
5/6858 . . . [with a distal basket, e.g. expandable basket]
5/6859 . . . [with multiple distal splines]
5/686 . . . [Permanently implanted devices, e.g. pacemakers, other stimulators, biochips (A61B 5/6861 takes precedence)]
5/6861 . . . [Capsules, e.g. for swallowing or implanting]
5/6862 . . . [Stents]
5/6864 . . . [Burr holes]
5/6865 . . . [Access ports]
5/6866 . . . [Extracorporeal blood circuits, e.g. dialysis circuits]
5/6867 . . . [specially adapted to be attached or implanted in a specific body part (A61B 5/6847 takes precedence)]
5/6868 . . . [Brain]
5/6869 . . . [Heart]
5/687 . . . [Oesophagus]
5/6871 . . . [Stomach]
5/6873 . . . [Intestine]
5/6874 . . . [Bladder]
5/6875 . . . [Uterus]
5/6876 . . . [Blood vessel]
5/6877 . . . [Nerve]
5/6878 . . . [Bone]
5/6879 . . . [Means for maintaining contact with the body (A61B 5/6847 takes precedence)]
5/688 . . . [using adhesives]
5/6882 . . . [Anchoring means]
5/6883 . . . [Sutures]
5/6884 . . . [Clamps or clips]
5/6885 . . . [Monitoring or controlling sensor contact pressure]
5/6886 . . . [Monitoring or controlling distance between sensor and tissue]
5/6887 . . . [mounted on external non-worn devices, e.g. non-medical devices]
5/6888 . . . [Cabins]
5/6889 . . . [Rooms]
5/6891 . . . [Furniture]
5/6892 . . . [Mats]
5/6893 . . . [Cars]
5/6894 . . . [Wheel chairs]
5/6895 . . . [Sport equipment]
5/6896 . . . [Toys]
5/6897 . . . [Computer input devices, e.g. mice or keyboards]
5/6898 . . . [Portable consumer electronic devices, e.g. music players, telephones, tablet computers]
5/70 . . . [Means for positioning the patient in relation to the detecting, measuring or recording means]

5/702 . . . [Posture restraints]
5/704 . . . [Tables]
5/706 . . . [Indicia not located on the patient, e.g. floor marking]
5/708 . . . [Breast positioning means]
5/72 . . . [Signal processing specially adapted for physiological signals or for diagnostic purposes (pattern recognition G06K 9/000)]
5/7203 . . . [for noise prevention, reduction or removal]
5/7207 . . . [of noise induced by motion artifacts]
5/721 . . . [using a separate sensor to detect motion or using motion information derived from signals other than the physiological signal to be measured]
5/7214 . . . [using signal cancellation, e.g. based on input of two identical physiological sensors spaced apart, or based on two signals derived from the same sensor, for different optical wavelengths]
5/7217 . . . [of noise originating from a therapeutic or surgical apparatus, e.g. from a pacemaker]
5/7221 . . . [Determining signal validity, reliability or quality (A61B 5/7207 and A61B 5/7217 take precedence)]
5/7225 . . . [Details of analog processing, e.g. isolation amplifier, gain or sensitivity adjustment, filtering, baseline or drift compensation (A61B 5/04004, A61B 5/04012, A61B 5/0428 take precedence; transformers for specific applications H01F 38/00; amplifiers H03F)]
5/7228 . . . [Signal modulation applied to the input signal sent to patient or subject; demodulation to recover the physiological signal (modulation H03C)]
5/7232 . . . [involving compression of the physiological signal, e.g. to extend the signal recording period]
5/7235 . . . [Details of waveform analysis (A61B 5/0452 takes precedence)]
5/7239 . . . [using differentiation including higher order derivatives]
5/7242 . . . [using integration]
5/7246 . . . [using correlation, e.g. template matching or determination of similarity]
5/725 . . . [using specific filters therefor, e.g. Kalman or adaptive filters (A61B 5/04014 and A61B 5/04017 take precedence)]
5/7253 . . . [characterised by using transforms]
5/7257 . . . [using Fourier transforms]
5/726 . . . [using Wavelet transforms]
5/7264 . . . [Classification of physiological signals or data, e.g. using neural networks, statistical classifiers, expert systems or fuzzy systems (neural networks per se G01N 3/00; expert systems per se G06N 5/00)]
5/7267 . . . [involving training the classification device]
5/7271 . . . [Specific aspects of physiological measurement analysis (A61B 5/04012, A61B 5/0452 and A61B 5/048 take precedence)]
5/7275 . . . [Determining trends in physiological measurement data]; Predicting development of a medical condition based on physiological measurements, e.g. determining a risk factor
5/7278 . . . [Artificial waveform generation or derivation, e.g. synthesising signals from measured signals (A61B 5/0428 takes precedence)]
Diagnosis; Psycho-physical tests

5/7282 . . . [Event detection, e.g. detecting unique waveforms indicative of a medical condition (A61B 5/4094, A61B 5/4818, A61B 5/0452, A61B 5/0823 take precedence)]
5/7285 . . . [for synchronising or triggering a physiological measurement or image acquisition with a physiological event or waveform, e.g. an ECG signal (A61B 6/5205, A61B 6/541, A61B 8/5207, A61B 8/543 take precedence)]
5/7289 . . . [Retrospective gating, i.e. associating measured signals or images with a physiological event after the actual measurement or image acquisition, e.g. by simultaneously recording an additional physiological signal during the measurement or image acquisition]
5/7292 . . . [Prospective gating, i.e. predicting the occurrence of a physiological event for use as a synchronisation signal]
5/7296 . . . [for compensation of signal variation due to stress unintentionally induced in the patient, e.g. due to the stress of the medical environment or examination (deliberately inducing physiological or psychological stress A61B 5/4884)]
5/74 . . . [Details of notification to user or communication with user or patient (indicating measured values G01D 7/00); user input means (input or output arrangements for computers G06F 3/00)]
5/7405 . . . [using sound]
5/741 . . . [using synthesised speech]
5/7415 . . . [Sound rendering of measured values, e.g. by pitch or volume variation (A61B 5/741 takes precedence)]
5/742 . . . [using visual displays (A61B 5/044 takes precedence)]
5/7425 . . . [Displaying combinations of multiple images regardless of image source, e.g. displaying a reference anatomical image with a live image (geometric transforms for image registration G06T 3/0068; enhancement using image fusion G06T 5/50; algorithms for registration of images G06T 7/30)]
5/743 . . . [Displaying an image simultaneously with additional graphical information, e.g. symbols, charts, function plots]
5/7435 . . . [Displaying user selection data, e.g. icons in a graphical user interface]
5/744 . . . [Displaying an avatar, e.g. an animated cartoon character]
5/7445 . . . [Display arrangements, e.g. multiple display units]
5/745 . . . [using a holographic display]
5/7455 . . . [characterised by tactile indication, e.g. vibration or electrical stimulation]
5/746 . . . [Alarms related to a physiological condition, e.g. details of setting alarm thresholds or avoiding false alarms (alarms per se G08B)]
5/7465 . . . [Arrangements for interactive communication between patient and care services, e.g. by using a telephone network (telemetry of measured physiological signal A61B 5/0002)]
5/747 . . . [in case of emergency, i.e. alerting emergency services]
5/7475 . . . [User input or interface means, e.g. keyboard, pointing device, joystick]
5/748 . . . [Selection of a region of interest, e.g. using a graphics tablet]
5/7485 . . . [Automatic selection of region of interest]
5/749 . . . [Voice-controlled interfaces]
5/7495 . . . [using a reader or scanner device, e.g. barcode scanner]

6/00 Apparatus for radiation diagnosis, e.g. combined with radiation therapy equipment (analysis of materials using radiation G01N 23/00, detecting hidden objects by radiation G01V 5/0008; radiodiagnostic or X-ray contrast preparations A61K 49/00; radiation therapy per se A61N 5/00; instruments measuring radiation intensity for application in the field of nuclear medicine, e.g. in vivo counting G01T 1/161; apparatus for taking X-ray photographs G03B 42/02; X-ray photographic processes G03C 5/16; irradiation devices G21K; X-ray apparatus or circuits therefor H05G 1/00; . Devices for diagnosis sequentially in different planes; Stereoscopic radiation diagnosis
6/022 . . . [Stereoscopic imaging]
6/025 . . . [Tomosynthesis]
6/027 . . . [characterised by the use of a particular data acquisition trajectory, e.g. helical or spiral]
6/03 . . . [Computerised tomographs (diagnosis by magnetic resonance imaging A61B 5/055; computerised tomography A61B 8/14)]
6/032 . . . [Transmission computed tomography (CT)]
6/035 . . . [Mechanical aspects of CT]
6/037 . . . [Emission tomography (detector details for PET G01T 1/2985, detector details for SPECT G01T 1/1644)]
6/04 . . . [Positioning of patients; Tiltable beds or the like (operating tables A61G 13/00; operating chairs A61G 15/00)]
6/0407 . . . [Tables or beds]
6/0414 . . . [Tables or beds with compression means]
6/0421 . . . [Tables or beds with immobilising means]
6/0428 . . . [Patient cradles]
6/0435 . . . [Tables or beds with means for imaging suspended breasts]
6/0442 . . . [Tables or beds made from non-metallic materials]
6/045 . . . [Tables or beds with heating or cooling means]
6/0457 . . . [Servo-controlled positioning]
6/0464 . . . [Supports mounted to ceiling]
6/0471 . . . [Endless-hand supports]
6/0478 . . . [Patient positioning chairs]
6/0485 . . . [Inflatable rests for lifting of patients]
6/0492 . . . [using markers or indicia for aiding patient positioning]
6/06 . . . [Diaphragms for particular diagnostic applications, e.g. tomography, i.e. not of general applicability (diaphragms, e.g. variable, or collimators in general G21K 1/02)]
6/08 . . . [Auxiliary means for directing the radiation beam to a particular spot, e.g. using light beams]
6/10 . . . [Application or adaptation of safety means (protection against dangerous radiation in general G21F)
Diagnosis; Psycho-physical tests

6/102 . . . {Protection against mechanical damage, e.g. anti-collision devices}
6/105 . . . . {Braking or locking devices}
6/107 . . . . {Protection against radiation, e.g. shielding
(techniques for handling radiation not otherwise provided for G21K)}
6/12 . Devices for detecting or locating foreign bodies
(A61B 6/02 takes precedence ; radio-opaque markers A61B 90/39)
6/14 . Applications or adaptations for dentistry
6/145 . . . . {by intraoral means (X-ray tubes having a small
cross-section to facilitate introduction into small cavities H01J 35/32)}
6/40 . . . [with arrangements for generating radiation
specially adapted for radiation diagnosis (X-ray
tubes or details thereof H01J 35/00)]
6/4007 . . . . (characterised by using a plurality of source
units (circuit arrangements driving apparatuses
comprising more than one X-ray tube
H05G 1/70)]
6/4014 . . . . [arranged in multiple source-detector units]
6/4021 . . . . {involving movement of the focal spot}
6/4028 . . . . {resulting in acquisition of views from
substantially different positions, e.g. EBCT}
6/4035 . . . . {the source being combined with a filter or
grating (filters for radiation per se G21K 1/10)}
6/4042 . . . . {K-edge filters}
6/405 . . . . {Source units adapted to modify characteristics
of the beam during the data acquisition process
(A61B 6/4021, A61B 6/4035 take precedence; arrangements changing the time structure of an
already generated radiation beam G21K 1A04)}
6/4057 . . . . {by using a source unit in the interior of the body
(A61B 6/037 takes precedence; X-ray tubes with
small cross-section H01J 35/32)}
6/4064 . . . . {adapted for producing a particular type of beam}
6/4071 . . . . {Pencil beams}
6/4078 . . . . {Fan-beams}
6/4085 . . . . {Cone-beams}
6/4092 . . . . {for producing synchrotron radiation}
6/42 . . [with arrangements for detecting radiation specially adapted for radiation diagnosis (details of radiation
detection G01T 1/00)]
6/4208 . . . . {characterised by using a particular type of
detector}
6/4216 . . . . {using storage phosphor screens (details of
stimulable phosphor sheets G01T 1/2012)]
6/4225 . . . . {using image intensifiers}
6/4233 . . . . {using matrix detectors (for semiconductor
radiation detectors G01T 1/24, G01T 1/2928)}
6/4241 . . . . {using energy resolving detectors, e.g. photon
counting (detectors for nuclear medicine
G01T 1/16, G01T 1/29)}
6/425 . . . . {using detectors specifically adapted to be used
in the interior of the body (detector details for in vivo counting G01T 1/161)]
6/4258 . . . . {for detecting non x-ray radiation, e.g. gamma
radiation (A61B 6/037 takes precedence)}
6/4266 . . . . {characterised by using a plurality of detector
units (A61B 6/4014 takes precedence)}
6/4275 . . . . {using a detector unit almost surrounding the
patient, e.g. more than 180°}
6/4283 . . . . {characterised by a detector unit being housed in
a cassette}
6/4291 . . . . {the detector being combined with a grid or
grating}
6/44 . . . . {Constructional features of the device for radiation
diagnosis}
6/4405 . . . . {the device being mobile or portable, e.g. mounted on a trolley or handheld}
6/4411 . . . . {the device being modular}
6/4417 . . . . {related to combined acquisition of different
diagnostic modalities}
6/4423 . . . . {related to hygiene or sterilisation}
6/4429 . . . . {related to the mounting of source units and
detector units (A61B 6/02 takes precedence)}
6/4435 . . . . {the source unit and the detector unit being
coupled by a rigid structure}
6/4441 . . . . . {the rigid structure being a C-arm or U-arm}
6/4447 . . . . . {Tiltable gantries}
6/4452 . . . . . {the source unit and the detector unit being able
to move relative to each other}
6/4458 . . . . . {the source unit or the detector unit being
attached to robotic arms}
6/4464 . . . . . {the source unit or the detector unit being
mounted to ceiling}
6/447 . . . . . {the source unit or the detector unit being
mounted to counterpoise or springs}
6/4476 . . . . . {related to servo controlled movement of the
source unit}
6/4482 . . . . . {involving power assist circuits}
6/4488 . . . . . {Means for cooling (A61B 6/045 takes precedence)}
6/4494 . . . . . {Means for identifying the diagnostic device}
6/46 . . . . {with special arrangements for interfacing with the
operator or the patient}
6/461 . . . . {Displaying means of special interest}
6/462 . . . . {characterised by constructional features of the
display}
6/463 . . . . {characterised by displaying multiple images or
images and diagnostic data on one display}
6/464 . . . . . {involving a plurality of displays}
6/465 . . . . . {adapted to display user selection data, e.g.
icons or menus}
6/466 . . . . {adapted to display 3D data (3D image
rendering G06T 15/00; manipulating 3D
models for computer graphics G06T 19/00)}
6/467 . . . . {characterised by special input means}
6/468 . . . . . {allowing annotation or message recording}
6/469 . . . . . {for selecting a region of interest [ROI]}
6/48 . . {Diagnostic techniques (A61B 6/022, A61B 6/032,
A61B 6/037 take precedence)}
6/481 . . . . {involving the use of contrast agents}
6/482 . . . . {involving multiple energy imaging}
6/483 . . . . {involving scattered radiation}
6/484 . . . . {involving phase contrast X-ray imaging}
6/485 . . . . {involving fluorescence X-ray imaging}
6/486 . . . . {involving generating temporal series of image
data}
6/487 . . . . {involving fluoroscopy}
6/488 . . . . {involving pre-scan acquisition}
6/50 . . {Clinical applications (dentistry A61B 6/14 takes
precedence)}
6/501 . . . . {involving diagnosis of head, e.g. neuroimaging,
cranio-}
6/502 . . . . {involving diagnosis of breast, i.e. mammography}
Diagnosis; Psycho-physical tests

6/503 . . [involving diagnosis of heart]
6/504 . . [involving diagnosis of blood vessels, e.g. by angiography]
6/505 . . [involving diagnosis of bone]
6/506 . . [involving diagnosis of nerves]
6/507 . . [involving determination of haemodynamic parameters, e.g. perfusion CT]
6/508 . . [for non-human patients]
6/52 . . [Devices using data or image processing specially adapted for radiation diagnosis (image processing per se G06T)]
6/5205 . . [involving processing of raw data to produce diagnostic data]
6/5211 . . [involving processing of medical diagnostic data]
6/5217 . . [extracting a diagnostic or physiological parameter from medical diagnostic data (details of algorithms to analyse biomedical images G06T 7/0012)]
6/5223 . . [generating planar views from image data, e.g. extracting a coronal view from a 3D image]
6/5229 . . [combining image data of a patient, e.g. combining a functional image with an anatomical image (details of algorithms for image registration G06T 7/30)]
6/5235 . . [combining images from the same or different radiation imaging techniques, e.g. PET and CT]
6/5241 . . [combining overlapping radiation images, e.g. by stitching]
6/5247 . . [combining images from different diagnostic modalities, e.g. X-ray and ultrasound]
6/5252 . . [removing objects from field of view, e.g. removing patient table from a CT image]
6/5258 . . [involving detection or reduction of artifacts or noise (details of algorithms for image enhancement G06T 7/97)]
6/5264 . . [due to motion]
6/527 . . [using data from a motion artifact sensor (A61B 6/5276 takes precedence)]
6/5276 . . [involving measuring table sag]
6/5282 . . [due to scatter]
6/5288 . . [involving retrospective matching to a physiological signal]
6/5294 . . [involving using additional data, e.g. patient information, image labeling, acquisition parameters]
6/54 . . [Control of devices for radiation diagnosis]
6/541 . . [involving acquisition triggered by a physiological signal]
6/542 . . [involving control of exposure]
6/544 . . [dependent on patient size]
6/545 . . [involving automatic set-up of acquisition parameters]
6/547 . . [involving tracking of position of the device or parts of the device (using an image of a phantom A61B 6/584)]
6/548 . . [Remote control of radiation diagnosis devices]
6/56 . . [Details of data transmission or power supply, e.g. use of slip rings]
6/563 . . [involving image data transmission via a network]
6/566 . . [involving communication between imaging systems]
6/58 . . [Test, testing, adjusting or calibrating devices for radiation diagnosis]
6/581 . . [Remote testing of the device]
6/582 . . [Calibration]
6/583 . . [using calibration phantoms (models for medical purposes G09B 23/28)]
6/584 . . [determining position of components of the device using images of the phantom]
6/585 . . [Calibration of detector units]
6/586 . . [Detection of faults or malfunction of the device]
6/587 . . [Alignment of source unit to detector unit]
6/588 . . [Setting distance between source unit and detector unit]
6/589 . . [Setting distance between source unit and patient]

7/00 Instruments for auscultation
7/001 . . [Detecting cranial noise, e.g. caused by aneurism]
7/003 . . [Detecting lung or respiration noise]
7/005 . . [Detecting noise caused by implants, e.g. cardiac valves]
7/006 . . [Detecting skeletal, cartilage or muscle noise (A61B 7/005 and A61B 7/010 take precedence)]
7/008 . . [Detecting noise of gastric tract, e.g. caused by voiding]
7/02 . . Stethoscopes [(acoustic details thereof G10K 11/00)]
7/023 . . [for introduction into the body, e.g. into the oesophagus (oesophageal ECG probes A61B 5/0421)]
7/026 . . [comprising more than one sound collector]
7/04 . . Electric stethoscopes (microphones, acoustic transducers therefor H04R)
7/045 . . [Detection of Korotkoff sounds (A61B 5/0225 takes precedence; measuring blood pressure A61B 5/021)]

8/00 Diagnosis using ultrasonic, sonic or infrasonic waves (imaging of objects using sonar G01S 15/00)
8/02 . . Measuring pulse or heart rate
8/04 . . Measuring blood pressure
8/06 . . Measuring blood flow (measuring volume flow in general G01F, e.g. G01F 1/66, G01F 1/72; measuring speed of fluids in general G01P 5/00)
8/065 . . [to determine blood output from the heart (in general A61B 5/029)]
8/08 . . Detecting organic movements or changes, e.g. tumours, cysts, swellings (A61B 8/02 - A61B 8/06 takes precedence)
8/0808 . . [for diagnosis of the brain]
8/0816 . . [using echo-encephalography]
8/0825 . . [for diagnosis of the breast, e.g. mammography]
8/0833 . . [involving detecting or locating foreign bodies or organic structures]
8/0841 . . [for locating instruments]
8/085 . . [for locating body or organic structures, e.g. tumours, calculi, blood vessels, nodules]
8/0858 . . [involving measuring tissue layers, e.g. skin, interfaces]
8/0866 . . [involving foetal diagnosis; pre-natal or peri-natal diagnosis of the baby]
8/0875 . . [for diagnosis of bone (A61B 5/4504 takes precedence)]
8/0883 . . [for diagnosis of the heart]
8/0891 . . [for diagnosis of blood vessels]
8/10 . . Eye inspection
8/12 . . in body cavities or body tracts, e.g. by using catheters (catheters per see A61M 25/00)
8/13 . . Tomography (A61B 8/10, A61B 8/12 take precedence; tomography for radiation diagnosis A61B 6/02)
8/14 . . Echo-tomography
8/145 . . [characterised by scanning multiple planes]
8/15 . . Transmission-tomography
8/40 . . [Positioning of patients, e.g. means for holding or immobilising parts of the patient's body]

**WARNING**
This subgroup is not complete pending a reorganisation, see A61B 8/00

8/403 . . [using compression means]
8/406 . . [using means for diagnosing suspended breasts]
8/42 . . [Details of probe positioning or probe attachment to the patient]

**WARNING**
This subgroup is not complete pending a reorganisation, see A61B 8/00

8/4209 . . [by using holders, e.g. positioning frames]
8/4218 . . [characterised by articulated arms]
8/4227 . . [characterised by straps, belts, cuffs or braces]
8/4236 . . [characterised by adhesive patches]
8/4245 . . [involving determining the position of the probe, e.g. with respect to an external reference frame or to the patient]
8/4254 . . [using sensors mounted on the probe]
8/4263 . . [using sensors not mounted on the probe, e.g. mounted on an external reference frame]
8/4272 . . [involving the acoustic interface between the transducer and the tissue]
8/4281 . . [characterised by sound-transmitting media or devices for coupling the transducer to the tissue]
8/429 . . [characterised by determining or monitoring the contact between the transducer and the tissue]
8/44 . . [Constructional features of the ultrasonic, sonic or infrasonic diagnostic device]

**WARNING**
This subgroup is not complete pending a reorganisation, see A61B 8/00

8/4405 . . [Device being mounted on a trolley]
8/4411 . . [Device being modular]
8/4416 . . [related to combined acquisition of different diagnostic modalities, e.g. combination of ultrasound and X-ray acquisitions]
8/4422 . . [related to hygiene or sterilisation]
8/4427 . . [Device being portable or laptop-like]
8/4433 . . [involving a docking unit]
8/4438 . . [Means for identifying the diagnostic device, e.g. barcodes]
8/4444 . . [related to the probe]

8/445 . . [Details of catheter construction]

**WARNING**
This subgroup is not complete pending a reorganisation, see A61B 8/12

8/4455 . . [Features of the external shape of the probe, e.g. ergonomic aspects]
8/4461 . . [Features of the scanning mechanism, e.g. for moving the transducer within the housing of the probe]
8/4466 . . [involving deflection of the probe]
8/4472 . . [Wireless probes]
8/4477 . . [using several separate ultrasound transducers or probes]
8/4483 . . [characterised by features of the ultrasound transducer]
8/4488 . . [the transducer being a phased array]
8/4494 . . [characterised by the arrangement of the transducer elements (devices for short-range imaging using particular transducer elements arrangements under G01S 15/8909; arrangements of transducers in generation of mechanical vibrations of infrasonic, sonic or ultrasonic frequency B06B 1/0607)]
8/46 . . [Ultrasonic, sonic or infrasonic diagnostic devices with special arrangements for interfacing with the operator or the patient]

**WARNING**
This subgroup is not complete pending a reorganisation, see A61B 8/00

8/461 . . [Displaying means of special interest]
8/462 . . [characterised by constructional features of the display]
8/463 . . [characterised by displaying multiple images or images and diagnostic data on one display (composite display in devices for short-range imaging with acoustic waves G01S 7/52074)]
8/464 . . [involving a plurality of displays]
8/465 . . [adapted to display user selection data, e.g. icons or menus]
8/466 . . [adapted to display 3D data (3D imaging and stereoscopic displays in devices for short-range imaging with acoustic waves G01S 15/8993 and G01S 7/52068, respectively; 3D image rendering G06T 15/00; manipulating 3D models for computer graphics G06T 19/00)]
8/467 . . [characterised by special input means]
8/468 . . [allowing annotation or message recording]
8/469 . . [for selection of a region of interest]
8/48 . . [Diagnostic techniques (A61B 8/13 takes precedence)]

**WARNING**
This subgroup is not complete pending a reorganisation, see A61B 8/08

8/481 . . [involving the use of contrast agent, e.g. microbubbles introduced into the bloodstream (analysis of echo signal exploiting properties of a contrast enhancer in devices for short-range imaging with acoustic waves G01S 7/52039)]
8/483 . . [involving the acquisition of a 3D volume of data]
9/00  Instruments for examination by percussion; Pleximeters

8/52  . . (Devices using data or image processing specially adapted for diagnosis using ultrasonic, sonic or infrasonic waves (image processing per se G06T))

WARNING
This subgroup is not complete pending a reorganisation, see A61B 8/08 and A61B 8/14

8/5207  . . (involving processing of raw data to produce diagnostic data, e.g. for generating an image (reconstruction G06T 11/00))

8/5215  . . (involving processing of medical diagnostic data)

8/5223  . . . . (for extracting a diagnostic or physiological parameter from medical diagnostic data (for algorithms to analyse biomedical images G06T 7/0012))

8/523  . . . . . . (for generating planar views from image data in a user selectable plane not corresponding to the acquisition plane)

8/5238  . . . . . . (for combining image data of patient, e.g. merging several images from different acquisition modes into one image (for image registration algorithms G06T 7/30))

8/5246  . . . . . . . . (combining images from the same or different imaging techniques, e.g. color Doppler and B-mode)

8/5253  . . . . . . (combining overlapping images, e.g. spatial compounding)

8/5261  . . . . . . (combining images from different diagnostic modalities, e.g. ultrasound and X-ray)

8/5269  . . . . . . (involving detection or reduction of artifacts (for image enhancement algorithms G06T 5/00))

8/5276  . . . . . . (due to motion)

8/5284  . . . . . . (involving retrospective matching to a physiological signal)

8/5292  . . . . . . (using additional data, e.g. patient information, image labeling, acquisition parameters)

8/54  . (Control of the diagnostic device)

8/543  . . (involving acquisition triggered by a physiological signal)

8/546  . . (involving monitoring or regulation of device temperature)

8/56  . . (Details of data transmission or power supply)

WARNING
This subgroup is not complete pending a reorganisation, see A61B 8/00

8/565  . . (involving data transmission via a network)

8/58  . . (Testing, adjusting or calibrating the diagnostic device)

WARNING
This subgroup is not complete pending a reorganisation, see A61B 8/00

8/582  . . (Remote testing of the device)

8/585  . . (Automatic set-up of the device)

8/587  . . (Calibration phantoms (models for medical purposes G09B 23/28))

9/00  Instruments for examination by percussion; Pleximeters

10/00  Other methods or instruments for diagnosis, e.g. instruments for taking a cell sample, for biopsy, for vaccination diagnosis (vaccination prophylaxis, vaccination therapy A61B 17/20); Sex determination; Ovulation-period determination (menstruation tables G06C 3/00); Throat striking implements

NOTE
Attention is drawn to group A61F 13/15 which provides for swabs

2010/0003  . . (including means for analysis by an unskilled person)

2010/0006  . . (involving a colour change)

2010/0009  . (Testing for drug or alcohol abuse)

10/0012  . (Ovulation-period determination (for animals A61D 17/002))

2010/0016  . . (based on measurement of electric currents, e.g. conductivity tests)

2010/0019  . . (based on measurement of temperature)

2010/0022  . . (based on measurement of viscosity or visco-elasticity)

2010/0025  . . (based on analysis of crystalisation structure)

2010/0029  . . (based on time measurement)

2010/0032  . . (based on measurement of pH-value)

10/0035  . (Vaccination diagnosis other than by injuring the skin, e.g. allergy test patches)

10/0038  . . (Devices for taking faeces samples; Faecal examination devices (anal receptacles A61F 5/451))

10/0041  . . (Detection of breast cancer (mammography by transillumination A61B 5/0091, by X-rays A61B 6/502, by ultrasonic means A61B 8/0825))

10/0045  . . (Devices for taking samples of body liquids (devices for taking blood samples A61B 5/15))

10/0048  . . (for taking amniotic fluid samples)

10/0051  . . (for taking saliva or sputum samples (devices for receiving spittle A61J 9/00))

2010/0054  . . (Ear liquid)

2010/0058  . . (for taking sperm samples (artificial insemination A61B 17/43; for animals A61D 19/021; genital receptacles for the male member A61F 5/453; massage of the genitals A61H 19/00))

2010/0061  . . (Alimentary tract secretions, e.g. biliary, gastric, intestinal, pancreatic secretions)

10/0064  . . (for taking sweat or sebum samples (measuring sweat production A61B 5/4266))

2010/0067  . . (Tear or lachrymal fluid)

10/007  . . (for taking urine samples (measuring urological functions A61B 5/220; genital receptacles A61F 5/451; urinals for bed-ridden persons A61G 9/006))

2010/0074  . . (Vaginal or cervical secretions)

2010/0077  . . (Cerebrospinal fluid)

2010/008  . . (Interstitial fluid)

2010/0083  . . (for taking gas samples)

2010/0087  . . (Breath samples)

2010/009  . . (Various features of diagnostic instruments)

2010/0093  . . (slide rules)
10/0096 . . . (Casings for storing test samples (A61B 10/0038 and A61B 10/0045 take precedence; preservation of living parts of the human or animal body A01N 1/02); containers for retaining a material to be analysed B01L 3/50; containers for enzymology or microbiology C12M 1/16; swab-sampler being part of enzymology or microbiology container C12M 1/30)

10/02 . . . Instruments for taking cell samples or for biopsy ((A61B 10/0038 and A61B 10/0045 take precedence; needle locating or guiding means A61B 17/3403; samplers for enzymology or microbiology C12M 1/26; sampling or preparing biological specimens G01N 33/48))

2010/0208 . . . (Biopsy devices with actuators, e.g. with triggered spring mechanisms)

2010/0216 . . . (Sampling brushes)

2010/0225 . . . (for taking multiple samples)

10/0233 . . . (Pointed or sharp biopsy instruments)

10/0241 . . . (for prostate)

10/025 . . . (for taking bone, bone marrow or cartilage samples)

2010/0258 . . . (Marrow samples)

10/0266 . . . (means for severing sample)

10/0275 . . . (with sample notch, e.g. on the side of inner styllet)

10/0283 . . . (with vacuum aspiration, e.g. caused by retractable plunger or by connected syringe (A61B 10/025, A61B 10/026 take precedence))

10/0291 . . . (for uterus (A61B 10/0045 takes precedence))

10/04 . . . (Endoscopic instruments)

2010/045 . . . (Needles (pointed biopsy devices with vacuum aspiration A61B 10/0283))

10/06 . . . (Biopsy forceps [, e.g. with cup-shaped jaws)

13/00 Instruments for depressing the tongue (combined with illuminating and viewing instruments A61B 1/24)

16/00 Devices specially adapted for vivisection or autopsy (similar devices for medical purposes, see the relevant groups for such devices (; autopsy tables A61G 13/00027))

Surgery

17/00 Surgical instruments, devices or methods, e.g. tourniquets (A61B 18/00 takes precedence; contraceptive devices, pessaries, or applicators therefor A61F 6/00; eye surgery A61F 9/007; ear surgery A61F 11/00)

2017/00004 . . . (bio)absorbable, (bio)resorbable, resorptive (for implantable prostheses A61F 2210/0004)

17/00008 . . . (Vein tendon strippers (tube strippers A61M 1/0078))

17/00013 . . . (Cables with a stripper head)

2017/00017 . . . (Electrical control of surgical instruments)

2017/00022 . . . (Sensing or detecting at the treatment site)

2017/00026 . . . (Conductivity or impedance, e.g. of tissue)

2017/0003 . . . (of parts of the instruments)

2017/00035 . . . (pH)

2017/00039 . . . (Electric or electromagnetic phenomena other than conductivity, e.g. capacity, inductivity, Hall effect)

2017/00044 . . . (Sensing electrocardiography, i.e. ECG)

2017/00048 . . . (Spectral analysis)

2017/00053 . . . (Mapping)

2017/00057 . . . (Light)

2017/00061 . . . (spectrum)

2017/00066 . . . (intensity)

2017/0007 . . . (Pyrometers)

2017/00075 . . . (Motion)

2017/00079 . . . (Radioactivity)

2017/00084 . . . (Temperature)

2017/00088 . . . (using thermistors)

2017/00092 . . . (using thermocouples)

2017/00097 . . . (one of the thermometric elements being an electrode or the heating element)

2017/00101 . . . (using an array of thermosensors)

2017/00106 . . . (ultrasonic)

2017/00111 . . . (piezo-electric)

2017/00115 . . . (with audible or visual output (with imaging means A61B 90/37, A61B 34/20))

2017/00119 . . . (alarm; indicating an abnormal situation)

2017/00123 . . . (and automatic shutdown)

2017/00128 . . . (related to intensity or progress of surgical action)

2017/00132 . . . (Setting operation time of a device (A61B 2017/00123 takes precedence))

2017/00137 . . . (Details of operation mode)

2017/00141 . . . (continuous, e.g. wave)

2017/00146 . . . (with multiple frequencies)

2017/0015 . . . (applied simultaneously)

2017/00154 . . . (pulsed)

2017/00159 . . . (Pulse shapes)

2017/00163 . . . (starting with a negative pulse)

2017/00168 . . . (Spike)

2017/00172 . . . (Pulse trains, bursts, intermittent continuous operation)

2017/00176 . . . (Two pulses, e.g. second pulse having an effect different from the first one)

2017/00181 . . . (Means for setting or varying the pulse energy)

2017/00185 . . . (Means for setting or varying the pulse height)

2017/0019 . . . (Means for setting or varying the pulse width)

2017/00194 . . . (Means for setting or varying the repetition rate)

2017/00199 . . . (with a console, e.g. a control panel with a display)

2017/00203 . . . (with speech control or speech recognition)

2017/00207 . . . (with hand gesture control or hand gesture recognition)

2017/00212 . . . (using remote controls)

2017/00216 . . . (with eye tracking or head position tracking control)

2017/00221 . . . (with wireless transmission of data, e.g. by infrared radiation or radio waves)

2017/00225 . . . (Systems for controlling multiple different instruments, e.g. microsurgical systems)

2017/0023 . . . (disposable)


2017/00238 . . . (Type of minimally invasive operation (A61B 2017/000805 takes precedence))

2017/00243 . . . (cardiac)
Surgery

2017/00247 . . . . [Making holes in the wall of the heart, e.g. laser Myocardial revascularization]
2017/00252 . . . . [for by-pass connections, i.e. connections from heart chamber to blood vessel or from blood vessel to blood vessel]
2017/00256 . . . . [Creating an electrical block]
2017/00261 . . . . [Discectomy]
2017/00265 . . . . [Hand assisted surgery, i.e. minimally invasive surgery with at least part of an assisting hand inside the body]
2017/00269 . . . . [endoscopic mucosal resection EMR]
2017/00274 . . . . [Prostate operation, e.g. prostatectomy, turp, bhp treatment]
2017/00278 . . . . [Transorgan operations, e.g. transgastric]
2017/00283 . . . . [with a device releasably connected to an inner wall of the abdomen during surgery, e.g. an illumination source]
2017/00287 . . . . [Bags for minimally invasive surgery]
2017/00292 . . . . [mounted on or guided by flexible, e.g. catheter-like, means]
2017/00296 . . . . [mounted on an endoscope]
2017/003 . . . . [Steerable]
2017/00305 . . . . [Constructional details of the flexible means]
2017/00309 . . . . [Cut-outs or slits]
2017/00314 . . . . [Separate linked members]
2017/00318 . . . . [Steering mechanisms]
2017/00323 . . . . [Cables or rods]
2017/00327 . . . . [with actuating members moving in opposite directions]
2017/00331 . . . . [with preformed bends]
2017/00336 . . . . [with a protective sleeve, e.g. retractable or slidable]
2017/0034 . . . . [adapted to be inserted through a working channel of an endoscope]
2017/00345 . . . . [Micromachines, nanomachines, microsystems]
2017/00349 . . . . [Needle-like instruments having hook or barb-like gripping means, e.g. for grasping suture or tissue (A61B 17/060666 takes precedence)]
2017/00353 . . . . [one mechanical instrument performing multiple functions, e.g. cutting and grasping (channel for multiple instruments A61B 2017/3445; instrument channel A61B 2017/22072; replaceable heads A61B 2017/2931; suction A61M 1/00)]
2017/00358 . . . . [Snare for grasping]
2017/00362 . . . . [Packages or dispensers for MIS instruments (A61B 2017/0479 takes precedence)]
2017/00367 . . . . [Details of actuation of instruments, e.g. relations between pushing buttons, or the like, and activation of the tool, working tip, or the like]
2017/00371 . . . . [Multiple actuation, e.g. pushing of two buttons, or two working tips becoming operational]
2017/00376 . . . . [Simultaneous actuation of two tools by simultaneously pushing two buttons]
2017/0038 . . . . [Simultaneous actuation of two tools by pushing one button or the like]
2017/00384 . . . . [Actuation of one tool by pushing two buttons simultaneously]
2017/00389 . . . . [Button or wheel for performing multiple functions, e.g. rotation of shaft and end effector]
2017/00393 . . . . [with means for switching between functions]
2017/00398 . . . . [using powered actuators, e.g. stepper motors, solenoids]
Surgery

2017/00588 . . . [Rigid or stiff implements, e.g. made of several rigid parts linked by hinges]
2017/00592 . . . [Elastic or resilient implements]
2017/00597 . . . [Implements comprising a membrane]
2017/00601 . . . [Implements entirely comprised between the two sides of the opening]
2017/00606 . . . [Implements H-shaped in cross-section, i.e. with occluders on both sides of the opening]
2017/0061 . . . [Implements located only on one side of the opening]
2017/00615 . . . [Implements with an occluder on one side of the opening and holding means therefor on the other]
2017/00619 . . . [Locking means for locking the implement in expanded state]
2017/00623 . . . [Introducing or retrieving devices therefor]
2017/00628 . . . [T-shaped occluders]
2017/00632 . . . [Occluding a cavity, i.e. closing a blind opening]
2017/00637 . . . [for sealing trocar wounds through abdominal wall]
2017/00641 . . . [for closing fistulae, e.g. anorectal fistulae]
2017/00646 . . . [Type of implements]
2017/0065 . . . [the implement being an adhesive]
2017/00654 . . . [entirely comprised between the two sides of the opening]
2017/00659 . . . [located only on one side of the opening]
2017/00663 . . . [the implement being a suture]
2017/00668 . . . [the implement being a tack or a staple]
2017/00672 . . . [Locating means therefor, e.g. bleed back lumen]
2017/00676 . . . [promotion of self-sealing of the puncture]
2017/00681 . . . [Aspects not otherwise provided for]
2017/00685 . . . [Archimedes screw]
2017/0069 . . . [with universal joint, cardan joint]
2017/00694 . . . [with means correcting for movement of or for synchronisation with the body]
2017/00699 . . . [correcting for movement caused by respiration, e.g. by triggering]
2017/00703 . . . [correcting for movement of heart, e.g. ECG-triggered]
2017/00707 . . . [Dummies, phantoms; Devices simulating patient or parts of patient]
2017/00712 . . . [simulating mathematical properties, e.g. for testing of positioning in the isocentre or focus]
2017/00716 . . . [simulating physical properties]
2017/00721 . . . [using artificial kidney stones for testing purposes]
2017/00725 . . . [Calibration or performance testing]
2017/0073 . . . [with means for minimising or preventing pain during treatment]
2017/00734 . . . [battery operated]
2017/00738 . . . [part of the tool being offset with respect to a main axis, e.g. for better view for the surgeon]
2017/00743 . . . [Type of operation; Specification of treatment sites (A61B 2017/00238 takes precedence)]
2017/00747 . . . [Dermatology]
2017/00752 . . . [Hair removal or transplantation]
2017/00756 . . . [Port wine stains]
2017/00761 . . . [Removing layer of skin tissue, e.g. wrinkles, scars or cancerous tissue]
2017/00765 . . . [Decreasing the barrier function of skin tissue by radiated energy, e.g. using ultrasound, using laser for skin perforation]
2017/00769 . . . [Tattoo removal]
2017/00774 . . . [Wart]
2017/00778 . . . [Operations on blood vessels (A61B 2017/22097, A61B 2017/320741 take precedence)]
2017/00783 . . . [Valvuloplasty]
2017/00787 . . . [Surgery of the ear]
2017/00792 . . . [Plastic surgery]
2017/00796 . . . [Breast surgery]
2017/008 . . . [Removal of tumors]
2017/00805 . . . [Treatment of female stress urinary incontinence]
2017/00809 . . . [Lung operations]
2017/00814 . . . [Surgery of the tongue, e.g. glossoplasty]
2017/00818 . . . [Treatment of the gastro-intestinal system]
2017/00823 . . . [Appendectomy]
2017/00827 . . . [Treatment of gastro-esophageal reflux]
2017/00831 . . . [Material properties]
2017/00836 . . . [corrosion-resistant (A61B 2017/00853 takes precedence; preventing galvanic or electrolytic corrosion in prostheses A61F 2210/0009)]
2017/0084 . . . [low friction (A61B 2017/00853 takes precedence)]
2017/00845 . . . [of moving parts with respect to each other]
2017/00849 . . . [with respect to tissue, e.g. hollow organs]
2017/00853 . . . [low friction, hydrophobic and corrosion-resistant fluorocarbon resin coating (ptf, ptfe, polytetrafluoroethylene)]
2017/00858 . . . [high friction, non-slip (on handles A61B 2017/00429)]
2017/00862 . . . [elastic or resilient (for sutures A61B 2017/0618)]
2017/00867 . . . [shape memory effect (for prostheses A61F 2210/0014)]
2017/00871 . . . [polymeric]
2017/00876 . . . [magnetic]
2017/0088 . . . [ceramic]
2017/00884 . . . [enhancing wound closure]
2017/00889 . . . [antimicrobial, disinfectant]
2017/00893 . . . [pharmacologically effective]
2017/00898 . . . [expandable upon contact with fluid]
2017/00902 . . . [transparent or translucent]
2017/00907 . . . [for light]
2017/00911 . . . [for fields applied by a magnetic resonance imaging system]
2017/00915 . . . [for radioactive radiation]
2017/0092 . . . [for X-rays]
2017/00924 . . . [for ultrasonic waves]
2017/00929 . . . [isolating electrical current]
2017/00933 . . . [bone or bone-like]
2017/00938 . . . [hydrophobic]
2017/00942 . . . [hydrophilic]
2017/00946 . . . [malleable]
2017/00951 . . . [adhesive]
2017/00955 . . . [thermoplastic]
2017/0096 . . . [self cleaning, e.g. having lotus effect]
2017/00964 . . . [composite]
2017/00969 . . . [used for transplantation]
2017/00973 . . . [pedal-operated]
2017/00977 . . . [the depression depth determining the power rate]
2017/00982 . . . [General structural features]
2017/00986 . . . [Malecots, e.g. slotted tubes, of which the distal end is pulled to deflect side struts]
Surgery

2017/00991 . . . . [Telescopic means]
2017/00995 . . . . [having a thin film]
17/02 . . . . for holding wounds open; Tractors (specula A61B 17/32 : drainage appliances for wounds A61M 27/00)
17/0206 . . . . [with antagonistic arms as supports for retractor elements]
2017/0212 . . . . [Cushions or pads, without holding arms, as tissue retainers, e.g. for retracting viscera]
2017/0225 . . . . [rigidly, i.e. fabrics, meshes, or membranes]
17/0231 . . . . [for eye surgery]
2017/0237 . . . . [for heart surgery (endoscopic heart surgery A61B 2017/00243; endoscopic access devices, i.e. trocars, A61B 17/34)]
2017/0243 . . . . [for immobilizing local areas of the heart, e.g. while it beats (trocars attached to inner organs or inner body tissue A61B 2017/3488)]
17/025 . . . . [Joint distractors]
2017/0256 . . . . [for the spine]
2017/0262 . . . . . [with a provision for protecting nerves]
2017/0268 . . . . [for the knee]
2017/0275 . . . . [for the hip]
17/0281 . . . . [Abdominal wall lifters]
2017/0287 . . . . [with elastic retracting members connectable to a frame, e.g. hooked elastic wires]
17/0293 . . . . [with ring member to support retractor elements]
17/04 . . . . for suturing wounds; Holders or packages for needles or suture materials (suture materials A61L 17/00)
17/0401 . . . . [Suture anchors, buttons or pledgets, i.e. means for attaching sutures to bone, cartilage or soft tissue; Instruments for applying or removing suture anchors (A61B 17/0642 takes precedence; fixation devices for tendons or ligaments A61F 200811)]
2017/0403 . . . . [Dowels (other bone dowels A61B 17/68: dowels for connecting prosthetic parts A61F 2002/30433)]
2017/0404 . . . . [Buttons]
2017/0406 . . . . [Pledgets]
2017/0408 . . . . [Rivets (other bone rivets A61B 17/68: rivets for connecting prosthetic parts A61F 2002/30433, A61F 2220/0041)]
2017/0409 . . . . [Instruments for applying suture anchors (for applying suture clamps, clips or locks A61B 2017/0488)]
2017/0411 . . . . [Instruments for removing suture anchors (for removing suture clamps, clips or locks A61B 2017/0490)]
2017/0412 . . . . [having anchoring bars or pins extending outwardly from suture anchor body]
2017/0414 . . . . [having a suture-receiving opening, e.g. lateral opening (lateral eyelet for attaching suture to needle A61B 2017/06019)]
2017/0416 . . . . [Packages or dispensers for suture anchors or for anchor applicators]
2017/0417 . . . . [T-fasteners]
2017/0419 . . . . [H-fasteners]
2017/042 . . . . [plastically deformed during insertion]
2017/0422 . . . . [by insertion of a separate member into the body of the anchor]
Surgery

2017/0472 . . . [Multiple-needled, e.g. double-needled, instruments]

2017/0474 . . . [Knot pushers]

2017/0475 . . . [using sutures having a slip knot]

2017/0477 . . . [with pre-tied sutures]

2017/0479 . . . [Packages or dispensers for MIS suturing instruments]

2017/048 . . . [for reducing heart wall tension, e.g. sutures with a pad on each extremity]

17/0482 . . . [Needle or suture guides (guides for drills, pins or wire A61B 17/17; for puncturing needles A61B 17/3403)]

17/0483 . . . [Hand-held instruments for holding sutures (A61B 17/0469 takes precedence; other holders for needles or sutures A61B 17/06061; surgical forceps A61B 17/28; surgical pincettes A61B 17/30)]

17/0485 . . . [Devices or means, e.g. loops, for capturing the suture thread and threading it through an opening of a suturing instrument or needle eyelet]

17/0487 . . . [Suture clamps, clips or locks, e.g. for replacing suture knots; Instruments for applying or removing suture clamps, clips or locks (suture anchors A61B 17/0401; wound clamps or clips A61B 17/08; ligaturing clamps or clips A61B 17/122)]

2017/0488 . . . [Instruments for applying suture clamps, clips or locks (for applying suture anchors A61B 17/0409; for applying wound clamps A61B 17/10; for applying ligaturing clamps or clips A61B 17/128)]

2017/0489 . . . [Instruments for removing suture clamps, clips or locks (for removing suture anchors A61B 17/0411; for removing wound clamps A61B 17/10; for removing ligaturing clamps or clips A61B 17/128)]

17/0491 . . . [Sewing machines for surgery]

17/0493 . . . [Protective devices for suturing, i.e. for protecting the patient's organs or the operator]

2017/0495 . . . [Reinforcements for suture lines]

2017/0496 . . . [for tensioning sutures]

2017/0498 . . . [for advancing a suture filament along a helical path through tissue]

17/06 . . . [Needles (; Sutures; Needle-suture combinations); Holders or packages for needles or suture materials (puncturing needles A61B 17/34; hypodermic needles A61M 5/32 ; sewing needles D05B 85/00)]

17/06004 . . . [Means for attaching suture to needle (tipping A61B 17/06195; connecting wire to other metallic objects B21F 15/00)]

2017/06009 . . . [having additional means for releasably clamping the suture to the needle, e.g. actuating rod slideable within the needle]

2017/06014 . . . [spring-loaded]

2017/06019 . . . [by means of a suture-receiving lateral eyelet machined in the needle (lateral opening for attaching suture to suture anchor A61B 17/0414)]

2017/06023 . . . [Multiple eyelets]

2017/06028 . . . [by means of a cylindrical longitudinal blind bore machined at the suture-receiving end of the needle, e.g. opposite to needle tip]
Surgery

17/06161 . . . {Devices for removing or collecting used needles or sutures (A61B 17/0467 takes precedence; for sharps A61B 50/362)}

17/06166 . . . {Sutures (suture materials A61L 17/00; manufacture of artificial threads D01D; treatment of threads D06M)}

2017/06171 . . . {helically or spirally coiled (for needles A61B 2017/06076)}

2017/06176 . . . {with protrusions, e.g. barbs}

2017/0618 . . . {elastic, e.g. stretchable (for prostheses A61F 221/00/057)}

2017/06185 . . . {hollow or tubular (hollow suture needles A61B 17/061)}

2017/0619 . . . {thermoplastic, e.g. for bonding, welding, fusing or cutting the suture by melting it (suture cutters A61B 17/0647; ultrasonic cutters A61B 17/320068; electrically heated instruments A61B 18/080)}

17/06195 . . . {Apparatus or means for preparing the cut end of the suture thread to be attached to the needle, e.g. tipping to prevent brooming (A61B 17/06004 takes precedence)}

17/062 . . . Needle manipulators

17/0625 . . . {the needle being specially adapted to interact with the manipulator, e.g. being ridged to snap fit in a hole of the manipulator (A61B 17/06109 takes precedence)}

17/064 . . . Surgical staples, i.e. penetrating the tissue

2017/0641 . . . {having at least three legs as part of one single body}

17/0642 . . . {for bones, e.g. for osteosynthesis or connecting tendon to bone}

17/0643 . . . {with separate closing member, e.g. for interlocking with staple}

17/0644 . . . {penetrating the tissue, deformable to closed position}

2017/0645 . . . {being elastically deformed for insertion}

2017/0646 . . . {for insertion into cartilage, e.g. meniscus}

2017/0647 . . . {having one single leg, e.g. tacks}

2017/0648 . . . {threaded, e.g. tacks with a screw thread}

2017/0649 . . . {Coils or spirals}

17/068 . . . Surgical staplers, i.e. containing multiple staples or clamps (A61B 17/0467 takes precedence; for staplers A61B 17/076)

17/0682 . . . {for applying U-shaped staples or clamps, e.g. without a forming anvil}

17/0684 . . . {having a forming anvil staying above the tissue during stapling}

17/0686 . . . {having a forming anvil staying below the tissue during stapling}

2017/0688 . . . {Packages or dispensers for surgical staplers}

17/072 . . . {for applying a row of staples in a single action, e.g. the staples being applied simultaneously}

17/07207 . . . {the staples being applied sequentially}

2017/07214 . . . {Stapler heads}

2017/07221 . . . {curved}

2017/07228 . . . {Arrangement of the staples}

2017/07235 . . . {containing different staples, e.g. staples of different shapes, sizes or materials}

2017/07242 . . . {achieving different staple heights during the same shot, e.g. using an anvil anvil having different heights or staples of different sizes}

2017/0725 . . . {with settable gap between anvil and cartridge, e.g. for different staple heights at different shots}

2017/07257 . . . {characterised by its anvil}

2017/07264 . . . {characterised by its staple forming cavities, e.g. geometry or material}

2017/07271 . . . {characterised by its cartridge}

2017/07278 . . . {characterised by its sited or its staple holder}

2017/07285 . . . {characterised by its cutter}

17/07292 . . . {Reinforcements for staple line, e.g. pledgets}

17/076 . . . for removing surgical staples (or wound clamps)

17/08 . . . Wound clamps (or clips, i.e. not or only partly penetrating the tissue (suture bridges A61B 17/0466); Devices for bringing together the edges of a wound)

2017/081 . . . {Tissue approximator (A61B 2017/1103, A61B 17/8866 takes precedence)}

17/083 . . . {Clips, e.g. resilient}

17/085 . . . {with adhesive layer}

2017/086 . . . {having flexible threads, filaments, laces or wires, e.g. parallel threads, extending laterally from a strip, e.g. for tying to opposing threads extending from a similar strip}

2017/088 . . . {Sliding fasteners}

17/10 . . . for applying or removing wound clamps, e.g. containing only one clamp or staple (A61B 17/076 takes precedence; containing multiple wound clamps A61B 17/068); Wound clamp magazines (containers, packaging elements or packages specially adapted for particular articles or with special means for dispensing contents B65D 83/00, B65D 85/00)

17/105 . . . {Wound clamp magazines (for packaging sharps A61B 50/3001)}

17/11 . . . for performing anastomosis; Buttons for anastomosis

2017/1103 . . . {Approximator}

2017/1107 . . . {for blood vessels}

2017/111 . . . {with means for removing a constriction after performing anastomosis}

17/1114 . . . {of the digestive tract, e.g. bowels or oesophagus}

2017/1117 . . . {adapted for discharge after necrotisation, e.g. by evacuation, expulsion or excretion}

2017/1121 . . . {adapted for performing tissue or graft eversion}

2017/1125 . . . {Forceps, specially adapted for performing or assisting anastomosis}

17/1128 . . . {of nerves}

2017/1132 . . . {End-to-end connections}

2017/1135 . . . {End-to-side connections, e.g. T- or Y-connections (Y-shaped blood vessel prostheses A61F 2002/065)}

2017/1139 . . . {Side-to-side connections, e.g. shunt or X-connections}

2017/1142 . . . {Purse-string sutures}

17/1146 . . . {of tendons}

17/115 . . . {Staplers (for performing anastomosis in a single operation}

17/1152 . . . {applying the staples on the outside of the lumen}

17/1155 . . . {Circular staplers comprising a plurality of staples}

2017/1157 . . . {applying the staples radially}
Surgery

17/12 . . . for ligaturing or otherwise compressing tubular parts of the body, e.g. blood vessels, umbilical cord (specially adapted for vas deferens or fallopian tubes A61F 6/20; materials for ligaturing blood vessels A61L 17/00)

17/12004 . . . (for haemostasis, for prevention of bleeding)

17/12009 . . . [Implements for ligaturing other than by clamps or clips, e.g. using a loop with a slip knot]

17/12013 . . . [for use in minimally invasive surgery, e.g. endoscopic surgery]

17/12018 . . . [Elastic band ligators]

17/12022 . . . [Occluding by internal devices, e.g. balloons or releasable wires (plugging an opening in the wall of an organ A61B 17/0057; occluders for the cervical canal A61F 6/146; vas deferens occluders A61F 6/20)]

17/12027 . . . [Type of occlusion (A61B 17/12113 takes precedence)]

17/12031 . . . [complete occlusion]

17/12036 . . . [partial occlusion]

17/1204 . . . [temporary occlusion]

17/12045 . . . [double occlusion, e.g. during anastomosis]

17/1205 . . . [Introduction devices]

17/12054 . . . [Details concerning the detachment of the occluding device from the introduction device]

17/12059 . . . [Joint of soluble material]

17/12063 . . . [electrolytically detachable]

17/12068 . . . [detachable by heat]

17/12072 . . . [the heat created by laser light]

17/12077 . . . [Joint changing shape upon application of heat, e.g. bi-metal or reversible thermal memory]

17/12081 . . . [detachable by inflation]

17/12086 . . . [magnetically detachable]

17/1209 . . . [detachable by electrical current or potential, e.g. electroactive polymer]

17/12095 . . . [Threaded connection]

17/12099 . . . [characterised by the location of the occluder]

17/12104 . . . [in an air passage]

17/12109 . . . [in a blood vessel]

17/12113 . . . [within an aneurysm]

17/12118 . . . [for positioning in conjunction with a stent]

17/12122 . . . [within the heart (for closing a cardiac septal defect A61B 17/0057)]

17/12127 . . . [Double occlusion, e.g. for creating blood-free anastomosis site]

17/12131 . . . [characterised by the type of occluding device]

17/12136 . . . [Balloons]

17/1214 . . . [Coils or wires]

17/12145 . . . [having a pre-set deployed three-dimensional shape (methods of manufacturing A61B 2017/00526)]

17/1215 . . . [comprising additional materials, e.g. thrombogenic, having filaments, having fibers, being coated]

17/12154 . . . [having stretch limiting means]

17/12159 . . . [Solid plugs; being solid before insertion]

17/12163 . . . [having a string of elements connected to each other]

17/12168 . . . [having a mesh structure (A61B 17/1214 takes precedence)]

17/12172 . . . [having a pre-set deployed three-dimensional shape (methods of manufacturing A61B 2017/00526)]

17/12177 . . . [comprising additional materials, e.g. thrombogenic, having filaments, having fibers or being coated]

17/12181 . . . [formed by fluidized, gelatinous or cellular remodelable materials, e.g. embolic liquids, foams or extracellular matrices]

17/12186 . . . [liquid materials adapted to be injected]

17/1219 . . . [expandable in contact with liquids]

17/12195 . . . [comprising a curable material]

17/122 . . . [Clamps or clips, e.g. for the umbilical cord (for the vas deferens A61F 6/20)]

17/1222 . . . [Packages or dispensers therefor (clip magazines incorporated in a clip-applying instrument A61B 17/128; for surgical articles A61B 50/30)]

17/1225 . . . [for clipping and cutting in a single operation]

17/1227 . . . [Spring clips]

17/128 . . . [for applying or removing clamps or clips]

17/1285 . . . [for minimally invasive surgery]

17/132 . . . [Tourniquets (sphygometers A61B 5/02)]

17/1322 . . . [comprising a flexible encircling member (A61B 17/135 takes precedence)]

17/1325 . . . [with means for applying local pressure (pressure pads A61F 5/30)]

17/1327 . . . [Tensioning clamps]

17/135 . . . [inflatable (for measuring blood pressure A61B 5/022; inflatable pressure pads A61F 5/34)]

17/1355 . . . [Automated control means therefor]

17/14 . . . [Surgical saws (A61B 17/1637 takes precedence); tooth saws A61C 3/12)]

17/142 . . . [with reciprocating saw blades, e.g. with cutting edges at the distal end of the saw blades]

17/144 . . . [with cutting edges at the side of the saw blades]

17/147 . . . [with circularly moving saw blades, i.e. non-reciprocating saw blades]

17/149 . . . [Chain, wire or band saws]

17/15 . . . [Guides therefor (arrangements for guiding straight saw blades in general B23D 51/025)]

17/151 . . . [for corrective osteotomy]

17/152 . . . [for removing a wedge-shaped piece of bone]

17/154 . . . [for preparing bone for knee prosthesis]

17/155 . . . [Cutting femur]

17/157 . . . [Cutting tibia]

17/158 . . . [Cutting patella]

17/16 . . . [Bone cutting, breaking or removal means other than saws, e.g., Osteoclasts; Drills or chisels for bones; Trepans)]

17/1602 . . . [Mills]

17/1604 . . . [Chisels; Rongeurs; Punches; Stamps]

17/1606 . . . [of forceps type, i.e. having two jaw elements moving relative to each other]
Surgery

Guides { or aligning means } for drills {, mills, specially adapted for wire insertion} for drilling thin bones such as the skull { Trepans or craniotomes, i.e. specially adapted surgical rasps, files, planes, or scrapers} for bone breaking devices { for tapping} using fluid other than turbine drive fluid { for producing a curved bore} intramedullary { for the acetabulum} { for the spine} for fixing pins through femoral hip prostheses { for grafts, harvesting or transplants} { motors; power supplies } { control means; display units} { drill handpieces { A61B 17/1626, A61B 17/1628 take precedence}} { sleeves, i.e. non-rotating parts surrounding the bit shaft, e.g. the sleeve forming a single unit with the bit shaft { A61B 17/1644 takes precedence}} { for the hip} { for the acetabulum} { for preparing the femur for hip prosthesis insertion} { for the ribs} { for holes for sutures or flexible wires} { for vaccinating or cleaning the skin previous to the vaccination} { diagnosis by vaccination { other than by injuring the skin A61B 10/0035} ; apparatus for injections A61M} NOTE Cleaning the skin previous to the vaccination is classified in A61B 90/80

17/1608 . . . . { the two jaw elements being linked to two elongated shaft elements moving longitudinally relative to each other} 17/1611 . . . . { the two jaw elements being integral with respective elongate shaft elements} 17/1613 . . . . { component parts} 17/1615 . . . . { drill bits, i.e. rotating tools extending from a handpiece to contact the worked material} 17/1617 . . . . { with mobile or detachable parts} 17/162 . . . . { chucks or tool parts which are to be held in a chuck} 17/1622 . . . . { drill handpieces { A61B 17/1626, A61B 17/1628 take precedence}} 17/1624 . . . . { drive mechanisms therefor} 17/1626 . . . . { control means; display units} 17/1628 . . . . { motors; power supplies} 17/1631 . . . . { special drive shafts, e.g. flexible shafts { A61B 17/1642, A61B 17/164 take precedence}} 17/1633 . . . . { sleeves, i.e. non-rotating parts surrounding the bit shaft, e.g. the sleeve forming a single unit with the bit shaft { A61B 17/1644 takes precedence}} 17/1635 . . . . { for grafts, harvesting or transplants} 17/1637 . . . . { hollow drills or saws producing a curved cut, e.g. cylindrical { A61B 10/0025, A61B 17/1695 take precedence}} 17/164 . . . . { intramedullary} 17/1642 . . . . { for producing a curved bore} 17/1644 . . . . { using fluid other than turbine drive fluid} 17/1646 . . . . { with sealing means} 2017/1648 . . . . { as cutting jet} 2017/1651 . . . . { for cooling} 2017/1653 . . . . { for lubrication} 17/1655 . . . . { for tapping} 17/1657 . . . . { bone breaking devices} 17/1659 . . . . { surgical rasps, files, planes, or scrapers} 17/1662 . . . . { for particular parts of the body} 17/1664 . . . . { for the hip} 17/1666 . . . . { for the acetabulum} 17/1668 . . . . { for the upper femur { A61B 17/164 takes precedence}} 17/1671 . . . . { for the spine} 17/1673 . . . . { for the jaw} 17/1675 . . . . { for the knee} 17/1677 . . . . { for the patella} 17/1679 . . . . { for the ear} 17/1682 . . . . { for the foot or ankle} 17/1684 . . . . { for the shoulder} 17/1686 . . . . { for the hand or wrist} 17/1688 . . . . { for the sinus or nose} 17/1691 . . . . { for the sternum} 17/1693 . . . . { for the ribs} 17/1695 . . . . { trepans or craniotomes, i.e. specially adapted for drilling thin bones such as the skull} 17/1697 . . . . { specially adapted for wire insertion} 17/17 . . . . { guides { or aligning means } for drills {, mills, pins or wires}} 17/1703 . . . . { using imaging means, e.g. by x-rays} 17/1707 . . . . { using electromagnetic effects, e.g. with magnet and external sensors} 17/171 . . . . { for external fixation} 17/1714 . . . . { for applying tendons or ligaments { implements for applying tendons or ligaments A61F 2/0805}} 17/1717 . . . . { for applying intramedullary nails or pins} 17/1721 . . . . { for applying pins along or parallel to the axis of the femoral neck} 17/1725 . . . . { for applying transverse screws or pins through intramedullary nails or pins} 17/1728 . . . . { for holes for bone plates or plate screws} 17/1732 . . . . { for bone breaking devices} 17/1735 . . . . { for rasps or chisels} 17/1739 . . . . { specially adapted for particular parts of the body} 17/1742 . . . . { for the hip} 17/1746 . . . . { for the acetabulum} 17/175 . . . . { for preparing the femur for hip prosthesis insertion} 17/1753 . . . . { for fixing pins through femoral hip prostheses} 17/1757 . . . . { for the spine} 17/176 . . . . { for the jaw { guiding dental drills A61C 1/082}} 17/1764 . . . . { for the knee} 17/1767 . . . . { for the patella} 17/1771 . . . . { for the ear} 17/1775 . . . . { for the foot or ankle} 17/1778 . . . . { for the shoulder} 17/1782 . . . . { for the hand or wrist} 17/1785 . . . . { for the sinus or nose} 17/1789 . . . . { for the sternum} 17/1792 . . . . { for the ribs} 17/1796 . . . . { for holes for sutures or flexible wires} 17/20 . . . . { for vaccinating or cleaning the skin previous to the vaccination} 17/205 . . . . { vaccinating by means of needles or other puncturing devices} 17/22 . . . . { implements for squeezing-off ulcers or the like on { the inside of } inner organs of the body; implements for scraping-out cavities of body organs, e.g. bones; calculus removers; calculus smashing apparatus; apparatus for removing obstructions in blood vessels, not otherwise provided for { dilators A61M 29/00}} 2017/22001 . . . . { angioplasty, e.g. pcta} 2017/22002 . . . . { preventing restenosis} 2017/22004 . . . . { using mechanical vibrations, e.g. ultrasonic shock waves { A61B 17/225 takes precedence}} 2017/22005 . . . . { effects, e.g. on tissue} 2017/22007 . . . . { cavitation or pseudocavitation, i.e. creation of gas bubbles generating a secondary shock wave when collapsing} 2017/22008 . . . . { used or promoted} 2017/22009 . . . . { reduced or prevented} 2017/22011 . . . . { combined types of vibration, e.g. ultrasonic and electrohydraulic}
Surgery

17/22012 . . . [in direct contact with, or very close to, the obstruction or concrement (for removing obstructions in blood vessels by laser A61B 18/245)]

2017/22014 . . . [the ultrasound transducer being outside patient's body; with an ultrasound transmission member; with a wave guide; with a vibrated guide wire (not applied in A61B 17/22012)]

2017/22015 . . . [with details of the transmission member]

2017/22017 . . . [the ultrasonic transmitting members being fibres]

2017/22018 . . . [segmented along its length]

17/2202 . . . [the ultrasound transducer being inside patient's body at the distal end of the catheter]

2017/22021 . . . [electric leads passing through the catheter]

17/22022 . . . [using electric discharge]

2017/22024 . . . [with a part reflecting mechanical vibrations, e.g. for focusing]

2017/22025 . . . [applying a shock wave (A61B 2017/22091 takes precedence)]

2017/22027 . . . [Features of transducers]

2017/22028 . . . [arrays, e.g. phased arrays]

17/22029 . . . [Means for measuring shock waves]

17/22031 . . . [Gripping instruments, e.g. forceps, for removing or smashing calculi (A61B 17/221 takes precedence)]

17/22032 . . . [having inflatable gripping elements (balloon catheters A61M 25/10)]

2017/22034 . . . [for gripping the obstruction or the tissue part from inside]

2017/22035 . . . [for retrieving or repositioning foreign objects]

2017/22037 . . . [Fecal impaction removal]

2017/22038 . . . [with a guide wire]

2017/22039 . . . [eccentric]

2017/22041 . . . [outside the catheter]

2017/22042 . . . [Details of the tip of the guide wire]

2017/22044 . . . [with a pointed tip]

2017/22045 . . . [fixed to the catheter; guiding tip]

2017/22047 . . . [Means for immobilising the guide wire in the patient]

2017/22048 . . . [Balloons]

2017/22049 . . . [Means for locking the guide wire in the catheter]

2017/22051 . . . [with an inflatable part, e.g. balloon, for positioning, blocking, or immobilisation (A61B 2017/22048, A61B 2017/3486 take precedence)]

2017/22052 . . . [eccentric]

2017/22054 . . . [with two balloons]

2017/22055 . . . [with three or more balloons]

2017/22057 . . . [Optical properties]

2017/22058 . . . [reflective]

2017/22059 . . . [transparent]

2017/22061 . . . [for spreading elements apart]

2017/22062 . . . [to be filled with liquid]

2017/22064 . . . [transparent liquid]

2017/22065 . . . [Functions of balloons (dilating A61M 29/02)]

2017/22067 . . . [Blocking; Occlusion (A61B 2017/22054 takes precedence)]

2017/22068 . . . [Centering]

2017/22069 . . . [Immobilising; Stabilising]

2017/22071 . . . [Steering]

2017/22072 . . . [with an instrument channel, e.g. for replacing one instrument by the other (in cannulas A61B 17/34171)]

2017/22074 . . . [the instrument being only slideable in a channel, e.g. advancing optical fibre through a channel]

2017/22075 . . . [with motorized advancing or retracting means]

2017/22077 . . . [with a part piercing the tissue (A61B 2017/22044 takes precedence)]

2017/22078 . . . [for rotating the tissue within a channel, e.g. an optical fibre]

2017/22079 . . . [with suction of debris]

2017/22081 . . . [Treatment of vulnerable plaque]

2017/22082 . . . [after introduction of a substance]

2017/22084 . . . [stone- or thrombus-dissolving]

2017/22085 . . . [light-absorbing (A61B 2017/22087 takes precedence)]

2017/22087 . . . [photodynamic]

2017/22088 . . . [ultrasound absorbing, drug activated by ultrasound]

2017/22089 . . . [Gas-bubbles]

2017/22091 . . . [Explosive]

2017/22092 . . . [Lubricant]

2017/22094 . . . [for crossing total occlusions, i.e. piercing]

2017/22095 . . . [accessing a blood vessel true lumen from the sub-intimal space]

2017/22097 . . . [Valve removal in veins]

2017/22098 . . . [Decalcification of valves]

17/221 . . . [Gripping devices in the form of loops or baskets (for gripping calculi or similar types of obstructions (surgical snare instruments A61B 17/32056)]

2017/2212 . . . [having a closed distal end, e.g. a loop]

2017/2215 . . . [having an open distal end]

2017/2217 . . . [single wire changing shape to a gripping configuration]

17/225 . . . [for extracorporeal shock wave lithotripsy [ESWL], e.g. by using ultrasonic waves]

17/2251 . . . [characterised by coupling elements between the apparatus, e.g. shock wave apparatus or locating means, and the patient, e.g. details of bags, pressure control of bag on patient]

2017/2253 . . . [using a coupling gel or liquid]

17/2255 . . . [Means for positioning patient, shock wave apparatus or locating means, e.g. mechanical aspects, patient beds, support arms, aiming means (positioning of patients for radiation diagnosis A61B 6/04; positioning of locating means inside shock wave apparatus A61B 17/2256)]

17/2256 . . . [with means for locating or checking the concrement, e.g. X-ray apparatus, imaging means (A61B 17/2255 takes precedence)]

17/2258 . . . [integrated in a central portion of the shock wave apparatus]

17/24 . . . [for use in the oral cavity, larynx, bronchial passages or nose (for medical inspection of cavities or tubes in the body A61B 1/00); Tongue scrapers]

2017/242 . . . [for bronchial passages]

17/244 . . . [for cleaning of the tongue]

2017/246 . . . [for cleaning of the nose]
Surgery A61B

2017/248...{Operations for treatment of snoring, e.g. uvulopalatoplasty}
2017/26...{Tonsillotomes, with or without means for stopping bleeding}
2017/28...{Surgical forceps (for holding suture needles or materials A61B 17/0483; for removing or smashing calculi A61B 17/221; surgical scissors A61B 17/3201; for inserting intraocular lenses A61F 2/1662; hand-held gripping tools in general B25B 7/00 })
2017/2804...{with two or more pivotal connections (A61B 17/29 takes precedence)}
2017/2808...{Clamp, e.g. towel clamp (A61B 17/29 takes precedence)}
2017/2812...{with a single pivotal connection (A61B 17/29 takes precedence)}
2017/2816...{Pivots}
2017/282...{Jaws}
2017/2825...{Inserts of different material in jaws}
2017/2829...{with a removable cover}
2017/2833...{Locking means}
2017/2837...{with a locking ratchet}
2017/2841...{Handles}
2017/2845...{with a spring pushing the handle back}
2017/285...{combined with cutting implements}
2017/289...{Forces for use in minimally invasive surgery}
2017/2901...{Details of shaft}
2017/2902...{characterized by features of the actuating rod}
2017/2903...{transferring rotary motion}
2017/2904...{curved, but rigid}
2017/2905...{flexible}
2017/2906...{Multiple forceps}
2017/2908...{Multiple segments connected by articulations}
2017/2909...{Handles}
2017/291...{the position of the handle being adjustable with respect to the shaft}
2017/2911...{rings}
2017/2912...{transmission of forces to actuating rod or piston}
2017/2913...{cams or guiding means}
2017/2915...{arcuate shaped guiding means}
2017/2916...{pins in guiding slots}
2017/2917...{with flexible part}
2017/2918...{flexible handles}
2017/2919...{details of linkages or pivot points}
2017/292...{connection of actuating rod to handle, e.g. ball end in recess}
2017/2922...{toggle linkages}
2017/2923...{Toothed members, e.g. rack and pinion}
2017/2924...{Translation movement of handle without rotating movement}
2017/2925...{Pistol grips}
2017/2926...{Details of heads or jaws}
2017/2927...{the angular position of the head being adjustable with respect to the shaft}
2017/2929...{with a head rotatable about the longitudinal axis of the shaft}
2017/293...{with means preventing relative rotation between the shaft and the actuating rod}
2017/2931...{with releasable head}
2017/2932...{Transmission of forces to jaw members}
2017/2933...{camming or guiding means}
2017/2934...{arcuate shaped guiding means}
2017/2936...{pins in guiding slots}
2017/2937...{with flexible part}
2017/2938...{Independently actutable jaw members, e.g. two actuating rods}
2017/2939...{Details of linkages or pivot points}
2017/294...{Connection of actuating rod to jaw, e.g. releasable}
2017/2941...{Toggle linkages}
2017/2943...{Toothed members, e.g. rack and pinion}
2017/2944...{Translation of jaw members}
2017/2945...{Curved jaws}
2017/2946...{Locking means}
2017/2947...{Pivots}
2017/2948...{Sealing means, e.g. for sealing the interior from fluid entry}
2017/295...{combined with cutting implements}
2017/30...{Surgical pinckettes (without pivotal connections (for holding suture needles or materials A61B 17/0483; wound clamps A61B 17/08 ; hand-held gripping tools without pivotal connections in general B25B 9/02))}
2017/301...{with three legs}
2017/303...{with four or more legs}
2017/305...{Tweezer like handles with tubular extensions, inner slidable actuating members and distal tools, e.g. microsurgical instruments}
2017/306...{holding by means of suction}
2017/308...{with suction cups}
2017/32...{Surgical cutting instruments (A61B 18/042 takes precedence; suture cutters A61B 17/0467; instruments for ligaturing or cutting A61B 17/128; instruments for rupturing the amniotic membrane A61B 17/4208; specially adapted knives for eye surgery A61F 9/0133 )}
2017/320004...{abrasive}
2017/320008...{Scrapers}
2017/320012...{Brushes}
2017/320016...{Endoscopic cutting instruments, e.g. arthroscopes, resectoscopes (A61B 10/0223, A61B 17/29, A61B 17/3201 take precedence )}
2017/32002...{with continuously rotating, oscillating or reciprocating cutting instruments}
2017/320024...{Morcellators, e.g. having a hollow cutting tube with an annular cutter for morcellating and removing tissue}
2017/320028...{with reciprocating movements}
2017/320032...{Details of the rotating or oscillating shaft, e.g. using a flexible shaft}
2017/320036...{adapted for use within the carpal tunnel}
2017/32004...{having a laterally movable cutting member at its most distal end which remains within the contours of said end}
2017/320044...{Blunt dissectors (blunt suture needles A61B 2017/06085 )}
2017/320048...{Balloon dissectors}
2017/320052...{Guides for cutting instruments (by marking A61B 2000/395 )}
2017/320056...{TunneIers}
2017/32006...{with a cutting strip, band or chain, e.g. like a chainsaw}
2017/320064...{with tissue or sample retaining means}
using mechanical vibrations, e.g. ultrasonic (A61B 17/22012 takes precedence; dental tooth drilling devices operated by vibration A61C 3/03; removing intra-ocular material using mechanical vibrations A61F 9/00745)

WARNING


All groups listed in this Warning should be considered in order to perform a complete search.

2017/320069 . . . { for ablating tissue }

WARNING

Group A61B 2017/320069 is incomplete pending reclassification of documents from group A61B 17/320068.

Groups A61B 17/320068 and A61B 2017/320069 should be considered in order to perform a complete search.

2017/32007 . . . { with suction or vacuum means }

WARNING

Group A61B 2017/32007 is incomplete pending reclassification of documents from group A61B 17/320068.

Groups A61B 17/320068 and A61B 2017/32007 should be considered in order to perform a complete search.

2017/320071 . . . { with articulating means for working tip }

WARNING

Group A61B 2017/320071 is incomplete pending reclassification of documents from group A61B 17/320068.

Groups A61B 17/320068 and A61B 2017/320071 should be considered in order to perform a complete search.

2017/320072 . . . { Working tips with special features, e.g. extending parts }

WARNING


All groups listed in this Warning should be considered in order to perform a complete search.

2017/320073 . . . { probe }

WARNING

Group A61B 2017/320073 is incomplete pending reclassification of documents from group A61B 2017/320072.

Groups A61B 2017/320072 and A61B 2017/320073 should be considered in order to perform a complete search.

2017/320074 . . . { blade }

WARNING

Group A61B 2017/320074 is incomplete pending reclassification of documents from group A61B 2017/320072.

Groups A61B 2017/320072 and A61B 2017/320074 should be considered in order to perform a complete search.

2017/320075 . . . . { single edge blade, e.g. for cutting }

WARNING

Group A61B 2017/320075 is incomplete pending reclassification of documents from group A61B 2017/320072.

Groups A61B 2017/320072 and A61B 2017/320075 should be considered in order to perform a complete search.

2017/320077 . . . . { double edge blade, e.g. reciprocating }

WARNING

Group A61B 2017/320077 is incomplete pending reclassification of documents from group A61B 2017/320072.

Groups A61B 2017/320072 and A61B 2017/320077 should be considered in order to perform a complete search.

2017/320078 . . . { Tissue manipulating surface }

2017/32008 { preventing clogging of suction channel }

2017/320082 . . . { for incising tissue }

WARNING

Group A61B 2017/320082 is incomplete pending reclassification of documents from group A61B 17/320068.

Groups A61B 17/320068 and A61B 2017/320082 should be considered in order to perform a complete search.

2017/320084 . . . { Irrigation sleeves }

2017/320088 . . . { with acoustic insulation, e.g. elements for damping vibrations between horn and surrounding sheath }
WARNING
Group A61B 2017/320089 is incomplete pending reclassification of documents from group A61B 2017/320088.
Groups A61B 2017/320088 and A61B 2017/320089 should be considered in order to perform a complete search.

2017/32009 . . . {node location}

WARNING
Group A61B 2017/32009 is incomplete pending reclassification of documents from group A61B 17/320068.
Groups A61B 17/320068 and A61B 2017/32009 should be considered in order to perform a complete search.

2017/32009 . . . {node at distal end of cutting means}

WARNING
Group A61B 17/32009 is impacted by reclassification into groups A61B 17/320093, A61B 2017/320094, A61B 2017/320095, and A61B 2017/320097.
All groups listed in this Warning should be considered in order to perform a complete search.

2017/320093 . . . {additional movable means performing cutting operation}

WARNING
Group A61B 2017/320093 is incomplete pending reclassification of documents from group A61B 17/320092.
Groups A61B 17/320092 and A61B 2017/320093 should be considered in order to perform a complete search.

2017/320094 . . . {additional movable means performing clamping operation}

WARNING
Group A61B 2017/320094 is incomplete pending reclassification of documents from group A61B 17/320092.
Groups A61B 17/320092 and A61B 2017/320094 should be considered in order to perform a complete search.

2017/320095 . . . {with sealing or cauterizing means}

WARNING
Group A61B 2017/320095 is incomplete pending reclassification of documents from group A61B 17/320092.
Groups A61B 17/320092 and A61B 2017/320095 should be considered in order to perform a complete search.

2017/320097 . . . {with stapling means}

WARNING
Group A61B 2017/320097 is incomplete pending reclassification of documents from group A61B 17/320092.
Groups A61B 17/320092 and A61B 2017/320097 should be considered in order to perform a complete search.

17/320098 . . . {with transverse or torsional motion}
17/3201 . . . Scissors (for biopsy A61B 10/02)
17/3203 . . . Fluid jet cutting instruments
17/32032 . . . {using cavitation of the fluid}
17/32035 . . . {with gas or air}
17/32037 . . . {for removing obstructions from inner organs or blood vessels, e.g. for atherectomy}
17/3205 . . . Excision instruments
17/32053 . . . {Punch like cutting instruments, e.g. using a cylindrical or oval knife (A61B 17/3238 takes precedence; trepans A61B 17/1605; for use on the cornea A61F 9/002)}
17/32056 . . . {Surgical snare instruments for removing or smashing calculi A61B 17/2212; tonsillotomes A61B 17/26}
17/3207 . . . Atherectomy devices (working by cutting or abrading; Similar devices specially adapted for non-vascular obstructions (A61B 17/32037 takes precedence; endoscopic cutting instruments A61B 17/320016)}
17/320708 . . . {Curettes, e.g. hollow scraping instruments}
17/320716 . . . {comprising means for preventing embolism by dislodged material}
17/320725 . . . {with radially expandable cutting or abrading elements (A61B 17/32075 takes precedence)}
17/320733 . . . {with a flexible cutting or scraping element, e.g. with a whip-like distal filament member}
17/320741 . . . {for stripping the intima or the internal plaque from a blood vessel, e.g. for endarterectomy}
17/32075 . . . {Pullback cutting; combined forward and pullback cutting, e.g. with cutters at both sides of the plaque}
17/320758 . . . {with a rotating cutting instrument, e.g. motor driven (A61B 17/32075, A61B 17/32075 and A61B 17/320783 take precedence; for removing intra-ocular material A61F 9/00763; endoscopic rotatable cutting instruments A61B 17/32002)}
17/320766 . . . {eccentric}
17/320775 . . . {Morcellators, impeller or propeller like means}
17/320783 . . . {through side-hole, e.g. sliding or rotating cutter inside catheter}
17/320791 . . . {with cutter extending outside the cutting window}
17/3209 . . . Incision instruments
17/32093 . . . {for skin incisions}
17/32096 . . . {for slowly cutting through tissue, e.g. stent like temporary implants having sharp edges}
17/3211 . . . Surgical scalpels, knives; Accessories therefor
17/32113 . . . {with extendable or retractable guard or blade}
Surgery

A61B

2017/32116 . . . . . . . [with means for improving the rigidity of the blade, e.g. with a reinforcing rib]

17/3213 . . . . . . . with detachable blades

17/3215 . . . . . . . Packages or dispensers for scalpel blades

17/3217 . . . . . . . Devices for removing or collecting used scalpel blades

17/322 . . . . . . . Skin grafting apparatus

2017/3225 . . . . . . . [with processing of harvested tissue]

17/326 . . . . . . . Circumcision apparatus

17/34 . . . . . . . Trocars; Puncturing needles

17/3401 . . . . . . . [Puncturing needles for the peridural or subarachnoid space or the plexus, e.g. for anaesthesia (local anaesthesia A61M 19/00)]

17/3403 . . . . . . . [Needle locating or guiding means (guides for suture needles A61B 17/0482; guiding or tracking by nuclear magnetic resonance G01R 33/285)]

2017/3405 . . . . . . . [using mechanical guide means]

2017/3407 . . . . . . . [including a base for support on the body]

2017/3409 . . . . . . . [including needle or instrument drives]

2017/3411 . . . . . . . [with a plurality of holes, e.g. holes in matrix arrangement]

2017/3413 . . . . . . . [guided by ultrasound]

17/3415 . . . . . . . [for introducing tubes or catheters, e.g. gastrostomy tubes, drain catheters (A61B 17/3417 takes precedence; body piercing catheter guide needles A61M 25/006)]

17/3417 . . . . . . . [Details of tips or shafts, e.g. grooves, expandable, bendable; Multiple coaxial sliding cannulas, e.g. for dilating (syringe needles A61M 5/32; dilators A61M 29/00)]

2017/3419 . . . . . . . [Sealing means between cannula and body]

17/3421 . . . . . . . [Cannulas]

17/3423 . . . . . . . [Access ports, e.g. toroid shape introducers for instruments or hands (access sites for liquids A61M 39/0247)]

2017/3425 . . . . . . . [for internal organs, e.g. heart ports]

2017/3427 . . . . . . . [for intercostal space]

2017/3429 . . . . . . . [having a unitary compressible body, e.g. made of silicone or foam]

17/3431 . . . . . . . [being collapsible, e.g. made of thin flexible material (A61B 17/3423 takes precedence)]

2017/3433 . . . . . . . [with different outer diameters of the cannula]

2017/3435 . . . . . . . [using everted sleeves]

2017/3437 . . . . . . . [with means for removing or absorbing fluid, e.g. wicks or absorbent pads]

17/3439 . . . . . . . [with means for changing the inner diameter of the cannula, e.g. expandable (A61B 17/3423, A61B 17/3431 take precedence; catheters A61M 25/0062)]

2017/3441 . . . . . . . [with distal sealing means]

2017/3443 . . . . . . . [with means for adjusting the length of a cannula]

2017/3445 . . . . . . . [used as instrument channel for multiple instruments (catheters A61B 17/2072)]

2017/3447 . . . . . . . [Linked multiple cannulas]

2017/3449 . . . . . . . [whereby the instrument channels merge into one single channel]

2017/345 . . . . . . . [for introduction into a natural body opening]

2017/3452 . . . . . . . [for the rectum, e.g. for hemorrhoid surgery]

2017/3454 . . . . . . . [Details of tips]

2017/3456 . . . . . . . [blunt]

2017/3458 . . . . . . . [threaded]

2017/346 . . . . . . . [with wings]

17/3462 . . . . . . . [with means for changing the diameter or the orientation of the entrance port of the cannula, e.g. for use with different-sized instruments, reduction ports, adapter seals (expandable cannulas A61B 17/3417)]

2017/3464 . . . . . . . [with means acting on inner surface of valve or seal for expanding or protecting, e.g. inner pivoting fingers]

2017/3466 . . . . . . . [for simultaneous sealing of multiple instruments]

17/3468 . . . . . . . [for implanting or removing devices, e.g. prostheses, implants, seeds, wires (devices for implanting seeds A61M 37/0069)]

2017/347 . . . . . . . [Locking means, e.g. for locking instrument in cannula]

17/3472 . . . . . . . [for bones, e.g. intraosseous injections]

17/3474 . . . . . . . [Insufflating needles, e.g. Veress needles]

17/3476 . . . . . . . [Powered trocars, e.g. electrosurgical cutting, lasers, powered knives]

2017/3478 . . . . . . . [Endoscopic needles, e.g. for infusion (biopsy needles A61B 10/0233; catheters with injection needles A61M 25/0067)]

2017/348 . . . . . . . [Means for supporting the trocar against the body or retaining the trocar inside the body]

2017/3482 . . . . . . . [inside]

2017/3484 . . . . . . . [Anchoring means, e.g. spreading-out umbrella-like structure]

2017/3486 . . . . . . . [Balloon]

2017/3488 . . . . . . . [Fixation to inner organ or inner body tissue]

2017/349 . . . . . . . [Trocar with thread on outside]

2017/3492 . . . . . . . [against the outside of the body]

17/3494 . . . . . . . [with safety means for protection against accidental cutting or pricking, e.g. limiting insertion depth, pressure sensors (for the peridural space A61B 17/3401)]

17/3496 . . . . . . . [Protecting sleeves or inner probes; Retractable tips (for protecting body piercing guide needles A61M 25/0062)]

17/3498 . . . . . . . [Valves therefor, e.g. flapper valves, slide valves (haemostasis valves A61M 39/06; check valves A61M 39/24)]

17/42 . . . . . . . Gynaecological or obstetrical instruments or methods (e.g. ligaturing clamps or clips for the umbilical cord A61B 17/122; curetage A61B 17/2072; dilators A61M 29/00)]

17/4208 . . . . . . . [Instruments for rupturing the amniotic membrane]

2017/4216 . . . . . . . [Operations on uterus, e.g. endometrium]

2017/4225 . . . . . . . [Cervix uteri]

2017/4233 . . . . . . . [Operations on Fallopian tubes, e.g. sterilization (A61B 2017/1125 takes precedence)]

17/4241 . . . . . . . [Instruments for manoeuvring or retracting the uterus, e.g. during laparoscopic surgery]

17/425 . . . . . . . [for reproduction or fertilisation (specially adapted for use with animals A61D 19/00)]

17/43 . . . . . . . [for artificial insemination]

17/435 . . . . . . . [for embryo [or ova] transplantation]
Surgery

2. Surgical instruments or devices are classified
1. Documents concerning exclusively surgical
methods are classified only in this group.
treatment of bones or joints A61F 5/00
(orthopaedic methods or devices for non-surgical
bones or joints; Devices specially adapted therefor
Surgical instruments or methods for treatment of
(chiropractic devices A61H 1/008

Chiropodists' instruments { , e.g. pedicure
)

(chiropractic devices A61H 1/008

Methods for bone or joint treatment

Joint mechanisms or joint supports in addition to

Screws or hooks combined with

Longitudinal elements, e.g. rods

( with a cross-section which varies
along its length (A61B 17/7019 takes
precedence)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit in the screw or hook
heads)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit around the screw or
hook heads)

(with parts of, or attached to, the
longitudinal elements, bearing
against an outside of the screw
or hook heads, e.g. nuts on
threaded rods (A61B 17/7007 takes
precedence)

[Longitudinal elements with a
non-circular, e.g. rectangular,
cross-section (A61B 17/7007 takes
precedence)]

(Bilateral fixators, i.e. with both ends of
pins or wires clamped)

[comprising a framework (A61B 17/6425,
A61B 17/6441 take precedence)]

(with pin-clamps fixed at ends of
connecting element)

(with pin-clamps movable along a solid
connecting rod)

[the connecting rod being threaded]

[the connecting rod having a non-
circular section]

[allowing small-scale motion of bone
ends]

[Alignment], compression or distraction
mechanisms

[for jaw bones, e.g. subcutaneous
distractors with external access
(periodontal bone regeneration
A61C 8/0006)]

[for alveolar distraction]

Internal fixation devices { , including
fasteners and spinal fixators, even if a part
thereof projects from the skin (bone staples
A61B 17/0642; dental regeneration membranes
A61C 8/0006)

[Alignment, compression, or distraction
mechanisms]

[comprising bone transfixation elements, e.g.
bolt with a distal cooperating element such as
a nut]

[Elements to be fitted on the end of screws
or wires, e.g. protective caps]

[Plugs, i.e. elements forming interface
between bone hole and implant or fastener,
e.g. screw]

[for reattaching pieces of the skull]

Spinal positioners or stabilisers [: Bone
stabilisers comprising fluid filler in an
implant]

Screws or hooks combined with
longitudinal elements which do not
contact vertebrae (A61B 17/7058 takes
precedence)

[Longitudinal elements, e.g. rods]

[with a cross-section which varies
along its length (A61B 17/7019 takes
precedence)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit in the screw or hook
heads)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit around the screw or
hook heads)

(with parts of, or attached to, the
longitudinal elements, bearing
against an outside of the screw
or hook heads, e.g. nuts on
threaded rods (A61B 17/7007 takes
precedence)

[Longitudinal elements with a
non-circular, e.g. rectangular,
cross-section (A61B 17/7007 takes
precedence)]

Bilateral fixators, i.e. with both ends of
pins or wires clamped)

[comprising a framework (A61B 17/6425,
A61B 17/6441 take precedence)]

(with pin-clamps fixed at ends of
connecting element)

(with pin-clamps movable along a solid
connecting rod)

[the connecting rod being threaded]

[the connecting rod having a non-
circular section]

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[Alignment], compression or distraction
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[for jaw bones, e.g. subcutaneous
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or wires, e.g. protective caps]

[Plugs, i.e. elements forming interface
between bone hole and implant or fastener,
e.g. screw]

[for reattaching pieces of the skull]

Spinal positioners or stabilisers [: Bone
stabilisers comprising fluid filler in an
implant]

Screws or hooks combined with
longitudinal elements which do not
contact vertebrae (A61B 17/7058 takes
precedence)

[Longitudinal elements, e.g. rods]

[with a cross-section which varies
along its length (A61B 17/7019 takes
precedence)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit in the screw or hook
heads)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit around the screw or
hook heads)

(with parts of, or attached to, the
longitudinal elements, bearing
against an outside of the screw
or hook heads, e.g. nuts on
threaded rods (A61B 17/7007 takes
precedence)

[Longitudinal elements with a
non-circular, e.g. rectangular,
cross-section (A61B 17/7007 takes
precedence)]

Bilateral fixators, i.e. with both ends of
pins or wires clamped)

[comprising a framework (A61B 17/6425,
A61B 17/6441 take precedence)]

(with pin-clamps fixed at ends of
connecting element)

(with pin-clamps movable along a solid
connecting rod)

[the connecting rod being threaded]

[the connecting rod having a non-
circular section]

[allowing small-scale motion of bone
ends]

[Alignment], compression or distraction
mechanisms

[for jaw bones, e.g. subcutaneous
distractors with external access
(periodontal bone regeneration
A61C 8/0006)]

[for alveolar distraction]

Internal fixation devices { , including
fasteners and spinal fixators, even if a part
thereof projects from the skin (bone staples
A61B 17/0642; dental regeneration membranes
A61C 8/0006)

[Alignment, compression, or distraction
mechanisms]

[comprising bone transfixation elements, e.g.
bolt with a distal cooperating element such as
a nut]

[Elements to be fitted on the end of screws
or wires, e.g. protective caps]

[Plugs, i.e. elements forming interface
between bone hole and implant or fastener,
e.g. screw]

[for reattaching pieces of the skull]

Spinal positioners or stabilisers [: Bone
stabilisers comprising fluid filler in an
implant]

Screws or hooks combined with
longitudinal elements which do not
contact vertebrae (A61B 17/7058 takes
precedence)

[Longitudinal elements, e.g. rods]

[with a cross-section which varies
along its length (A61B 17/7019 takes
precedence)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit in the screw or hook
heads)

Parts of the longitudinal elements,
e.g. their ends, being specially
adapted to fit around the screw or
hook heads)

(with parts of, or attached to, the
longitudinal elements, bearing
against an outside of the screw
or hook heads, e.g. nuts on
threaded rods (A61B 17/7007 takes
precedence)

[Longitudinal elements with a
non-circular, e.g. rectangular,
cross-section (A61B 17/7007 takes
precedence)]
Surgery

17/7011 . . . . . . . [Longitudinal element being non-straight, e.g. curved, angled or branched (adjustable length longitudinal elements A61B 17/7014; A61B 17/7019 takes precedence, e.g. coil springs)]
17/7013 . . . . . . . (the shape of the element being adjustable before use (adjustable length plates A61B 17/7014))
17/7014 . . . . . . . (with means for adjusting the distance between two screws or hooks)
17/7016 . . . . . . . [electric or electromagnetic means]
17/7017 . . . . . . . [pneumatic or hydraulic means]
17/7019 . . . . . . . [Longitudinal elements having flexible parts, or parts connected together, such that after implantation the elements can move relative to each other]
17/702 . . . . . . . [having a core or insert, and a sleeve, whereby a screw or hook can move along the core or in the sleeve]
17/7022 . . . . . . . [Tethers, i.e. longitudinal elements capable of transmitting tension only, e.g. straps, sutures or cables (A61B 17/702 takes precedence)]
17/7023 . . . . . . . [with a pivot joint]
17/7025 . . . . . . . [with a sliding joint]
17/7026 . . . . . . . [with a part that is flexible due to its form]
17/7028 . . . . . . . [the flexible part being a coil spring]
17/7029 . . . . . . . [the entire longitudinal element being flexible]
17/7031 . . . . . . . [made wholly or partly of flexible material]
17/7032 . . . . . . . [Screws or hooks with U-shaped head or back through which longitudinal rods pass]
17/7034 . . . . . . . [characterised by a lateral opening]
17/7035 . . . . . . . [Screws or hooks, wherein a rod-clamping part and a bone-anchoring part can pivot relative to each other]
17/7037 . . . . . . . [wherein pivoting is blocked when the rod is clamped]
17/7038 . . . . . . . [to a different extent in different directions, e.g. within one plane only]
17/704 . . . . . . . [the longitudinal element passing through a ball-joint in the screw head]
17/7041 . . . . . . . [with single longitudinal rod offset laterally from single row of screws or hooks (A61B 17/7044 takes precedence)]
17/7043 . . . . . . . [with a longitudinal element fixed to one or more transverse elements which connect multiple screws or hooks]
17/7044 . . . . . . . [also having plates, staples or washers bearing on the vertebrae]
17/7046 . . . . . . . [the screws or hooks being mobile in use relative to the longitudinal element (A61B 17/702, A61B 17/7035 take precedence)]
17/7047 . . . . . . . [Clamps comprising opposed elements which grasp one vertebra between them]
17/7049 . . . . . . . [Connectors, not bearing on the vertebral bone for linking longitudinal elements together (A61B 17/7055, A61B 17/7053, A61B 17/7019 take precedence)]
17/705 . . . . . . . [for linking adjacent ends of longitudinal elements]
17/7052 . . . . . . . [of variable angle or length]
17/7053 . . . . . . . [with parts attached to bones or to each other by flexible wires, straps, sutures or cables]
17/7055 . . . . . . . [connected to sacrum, pelvis or skull]
17/7056 . . . . . . . [Hooks with specially-designed bone-contacting part]
17/7058 . . . . . . . [Plates mounted on top of bone anchor heads or shoulders]
17/7059 . . . . . . . [Cortical plates]
17/7061 . . . . . . . [for stabilising vertebrae or discs by improving the condition of their tissues, e.g. using implanted medication or fluid exchange (intraosseous injection devices A61B 17/3472)]
17/7062 . . . . . . . [Devices acting on, attached to, or simulating the effect of, vertebral processes, vertebral facets or ribs (rib fixation devices A61B 17/8076); Tools for such devices]
17/7064 . . . . . . . [Devices acting on, attached to, or simulating the effect of, vertebral facets; Tools therefor]
17/7065 . . . . . . . [Devices with changeable shape, e.g. collapsible or having retractable arms to aid implantation; Tools therefor]
17/7067 . . . . . . . [Devices bearing against one or more spinous processes and also attached to another part of the spine; Tools therefor]
17/7068 . . . . . . . [Devices comprising separate rigid parts, assembled in situ, to bear on each side of spinous processes; Tools therefor]
17/707 . . . . . . . [Devices acting on, or attached to, a transverse process or rib; Tools therefor]
17/7071 . . . . . . . [Implants for expanding or repairing the vertebral arch or wedged between laminae or pedicles; Tools therefor]
2017/7073 . . . . . [with intervertebral connecting element crossing an imaginary spinal median surface]
17/7074 . . . . . . . [Tools specially adapted for spinal fixation operations other than for bone removal or filler handling (A61B 17/7062, A61B 17/808, A61B 17/8858 take precedence; for spinal image producing devices A61B 90/36, A61B 34/20; markers A61B 90/39)]
17/7076 . . . . . . . [for driving, positioning or assembling spinal clamps or bone anchors specially adapted for spinal fixation]
17/7077 . . . . . . . [for moving bone anchors attached to vertebrae, thereby displacing the vertebrae]
Intramedullary pins, nails or other devices for bone lengthening or compression take precedence.

Flexible pins, e.g. ENDER pins.

Bone lengthening or compression devices.

Bone compression devices.

The nail having separate elements through which screws pass.

Intramedullary nails.

Flexible pins, e.g. ENDER pins.

Bone lengthening or compression devices.

Bone compression devices.

The nail having separate elements through which screws pass.

Cortical plates.

Bone plates.

Cushions, i.e. elements forming interface between bone plate and bone.

With means for adapting the angle between the longitudinal elements and the shaft axis of the femur.

Cortical plates.

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The nail having separate elements through which screws pass.
Surgery

17/8076 . . . . . . . [for the ribs or the sternum]
17/808 . . . . . . . [Instruments for holding or positioning bone plates, or for adjusting screw-to-plate locking mechanisms]
17/8085 . . . . . . . (with pliable or malleable elements or having a mesh-like structure, e.g. small strips for craniofacial surgery (A61B 17/8071, A61B 17/8076 take precedence; connecting prostheses with the body A61F 2/20))
17/809 . . . . . . . [with bone-penetrating elements, e.g. blades or prongs (bone staples A61B 17/8642)]
17/8095 . . . . . . . [Wedge ostectomy devices]
17/82 . . . . . . . [for bone cerclage (apparatus for manipulating wires or straps A61B 17/8861; wires, bands or straps other than cerclage A61B 17/842)]
17/823 . . . . . . . [for the sternum]
17/826 . . . . . . . [Nets or webs]
17/84 . . . . . . . Fasteners therefor [or fasteners being internal fixation devices]
17/842 . . . . . . . [Flexible wires, bands or straps (A61B 17/72, A61B 17/82; A61B 17/86 take precedence)]
17/844 . . . . . . . [with expandable anchors or anchors having movable parts]
17/846 . . . . . . . [Nails or pins, i.e. anchors without movable parts, holding by friction only, with or without structed surface (A61B 17/72, A61B 17/86 take precedence)]
17/848 . . . . . . . [Kirschner wires, i.e. thin, long nails]
17/86 . . . . . . . [Threaded wires, pins or screws; {Nuts therefor (A61B 17/72, A61B 17/74, A61F 2/4455 take precedence)}]
17/8605 . . . . . . . [Heads, i.e. proximal ends projecting from bone]
17/861 . . . . . . . [specially shaped for gripping driver]
17/8615 . . . . . . . [at the central region of the screw head]
17/862 . . . . . . . [at the periphery of the screw head]
17/8625 . . . . . . . [Shanks, i.e. parts contacting bone tissue (screw-in dental implants A61C 8/0018)]
17/863 . . . . . . . [with thread interrupted or changing its form along shank, other than constant taper]
17/8635 . . . . . . . [Tips of screws]
17/864 . . . . . . . [hollow, e.g. with socket or cannulated]
17/8645 . . . . . . . [Headless screws, e.g. ligament interference screws]
17/865 . . . . . . . [Packages or dispensars for bone screws or threaded wires]
2017/8655 . . . . . . . [with special features for locking in the bone]
17/866 . . . . . . . [Material or manufacture]
17/8665 . . . . . . . [Nuts]
2017/867 . . . . . . . [with integral locking or clamping means]
2017/8675 . . . . . . . [clamping effect due to tapering, e.g. conical thread]
2017/868 . . . . . . . [self-locking due to part of nut being deformed upon tightening]
17/8685 . . . . . . . [comprising multiple separate parts]
17/869 . . . . . . . [characterised by an open form, e.g. wire helix]
17/8695 . . . . . . . [Washers (surrounding screw head in plate hole A61B 17/8047, between bone plate and bone A61B 17/8028)]
17/88 . . . . . . . [Osteosynthesis instruments; Methods or means for implanting or extracting internal (or external) fixation devices ((A61B 17/7074 takes precedence)]
17/8802 . . . . . . . [Equipment for handling bone cement or other fluid fillers (plugs or restrictors for bone cement A61F 2/30723)]
17/8805 . . . . . . . [for introducing fluid filler into bone or extracting it (A61B 17/7097, A61B 17/8833 take precedence; for introducing bone graft A61F 2/4601)]
17/8808 . . . . . . . [with sealing collar for bone cavity]
17/8811 . . . . . . . [characterised by the intruder tip, i.e. the part inserted into or onto the bone]
2017/8813 . . . . . . . [Discharging means for excessively introduced fluid fillers, e.g. discharging excess cement]
17/8816 . . . . . . . [characterised by the conduit, e.g. tube, along which fluid flows into the body or by conduit connections]
17/8819 . . . . . . . [characterised by the intruder proximal part, e.g. cannula handle, or by parts which are inserted inside each other, e.g. styllet and cannula (A61B 17/8825 takes precedence)]
17/8822 . . . . . . . [characterised by means facilitating expulsion of fluid from the intruder, e.g. a screw pump plunger, hydraulic force transmissions, application of vibrations or a vacuum]
17/8825 . . . . . . . [characterised by syringe details (A61B 17/8822, A61B 17/8827 take precedence)]
17/8827 . . . . . . . [with filtering, degassing, venting or pressure relief means]
2017/883 . . . . . . . [Means for indicating hardening of bone cement]
17/8833 . . . . . . . [Tools for preparing, e.g. curing, cement or other fluid fillers (B01F takes precedence); Means for supplying cement or other fluid fillers to an introducing tool, e.g. cartridge handling means]
17/8836 . . . . . . . [for heating, cooling or curing the filler]
2017/8838 . . . . . . . [for mixing, with or without means for supplying the mixed filler to an injecting tool]
17/8841 . . . . . . . [Tools specially adapted to engage a prosthesis]
2017/8844 . . . . . . . [Means for determining the viscosity of bone cement]
17/8847 . . . . . . . [for removing cement from a bone cavity (using surgical bone chisels, drills, mills, rasps, reamers or scrapers A61B 17/16; using laser A61B 18/20; using ultrasonic surgical instruments A61N 7/00)]
Surgery

17/885  . . .  {Tools for expanding or compacting bones or discs or cavities therein (A61B 17/8805, A61B 17/7097 take precedence)}
17/8852  . . .  {capable of being assembled or enlarged, or changing shape, inside the bone or disc}
17/8855  . . .  {inflatable, e.g. kyphoplasty balloons}
17/8858  . . .  {laterally or radially expansible (inflatable A61B 17/8855)}
17/8861  . . .  {Apparatus for manipulating flexible wires or strips}
17/8863  . . .  {Apparatus for shaping or cutting osteosynthetic equipment}
17/8866  . . .  {for gripping or pushing bones, e.g. approximators}
17/8869  . . .  {Tensioning devices}
17/8872  . . .  {Instruments for putting said fixation devices against or away from the bone (A61B 17/7074, A61B 17/808 take precedence)}
17/8875  . . .  {Screwdrivers, spanners or wrenches}
17/8877  . . .  {characterised by the cross-section of the driver bit}
17/888  . . .  {the driver bit acting on the central region of the screw head}
17/8883  . . .  {the driver bit acting on the periphery of the screw head}
17/8886  . . .  {holding the screw head}
17/8888  . . .  {at its central region}
17/8891  . . .  {at its periphery}
17/8894  . . .  {holding the implant into or through which the screw is to be inserted (A61B 17/7082, A61B 17/7091 take precedence)}
17/8897  . . .  {Guide wires or guide pins}
17/92  . . .  {Impactors or extractors, e.g. for removing intramedullary devices (insertion or extraction of artificial joints A61F 2/4603)}
17/921  . . .  {for intramedullary devices}
17/922  . . .  {Devices for impaction, impact element}
17/924  . . .  {Impact element driving means}
17/925  . . .  {a spring}
17/927  . . .  {Returning means}
17/928  . . .  . . . {a spring}

18/00  Surgical instruments, devices or methods for transferring non-mechanical forms of energy to or from the body (eye surgery A61F 9/007; ear surgery A61F 11/00)

18/20005  . . .  {Cooling or heating of the probe or tissue immediately surrounding the probe}
18/200011  . . .  {with fluids}
18/200017  . . .  {with gas}
18/200023  . . .  {closed, i.e. without wound contact by the fluid}
18/200029  . . .  {open}
18/200035  . . .  {with return means}
18/200041  . . .  {Heating, e.g. defrosting}
18/200047  . . .  {using Peltier effect}
18/200053  . . .  {Mechanical features of the instrument of device}
18/200059  . . .  {Material properties}
18/200065  . . .  {porous}
18/200071  . . .  {Electrical conductivity}
18/200077  . . .  {high, i.e. electrically conducting}
18/200083  . . .  {low, i.e. electrically insulating}
18/200089  . . .  {Thermal conductivity}
18/200095  . . .  {high, i.e. heat conducting}
18/200101  . . .  {low, i.e. thermally insulating}
18/200107  . . .  {Coatings on the energy applicator}
18/200113  . . .  {with foam}
18/200119  . . .  {with metal oxide nitride}
18/200125  . . .  {with nanostructure}
18/20013  . . .  . . . {non-sticking}
18/200136  . . .  {with polymer}
18/200142  . . .  {lubricating}
18/200148  . . .  {with metal}
18/200154  . . .  {containing and delivering drugs}
18/20016  . . .  {Energy applicators arranged in a two- or three dimensional array}
18/200166  . . .  {Multiple lumina}
18/200172  . . .  {Connectors and adapters therefor}
18/200178  . . .  {Electrical connectors}
18/200184  . . .  {Moving parts}
18/20019  . . .  {vibrating}
18/200196  . . .  {reciprocating lengthwise}
18/200202  . . .  {rotating}
18/200208  . . .  {actively driven, e.g. by a motor}
18/200214  . . .  {Expandable means emitting energy, e.g. by elements carried thereon}
18/20022  . . .  {Balloons}
18/200226  . . .  {extending from a surface, i.e. Blisters}
18/200232  . . .  {having an irregular shape}
18/200238  . . .  {porous}
18/200244  . . .  {adapted to separate target tissue from other tissue}
18/20025  . . .  {Multiple balloons}
18/200255  . . .  {arranged one inside another}
18/200261  . . .  {arranged in a line}
18/200267  . . .  {having a basket shaped structure}
18/200273  . . .  {Anchoring means for temporary attachment of a device to tissue}
18/200279  . . .  {deployable}
18/200285  . . .  {Balloons}
18/200291  . . .  {using suction}
18/200297  . . .  {Means for providing haptic feedback}
18/200303  . . .  {active, e.g. with a motor creating vibrations}
18/200309  . . .  {passive, e.g. palpable click when activating a button}
18/200315  . . .  {for treatment of particular body parts}
18/200321  . . .  {Head or parts thereof}
18/200327  . . .  {Ear, nose or throat}
18/200333  . . .  {Breast}
18/200339  . . .  {Spine, e.g. intervertebral disc}
18/200345  . . .  {Vascular system}
18/200351  . . .  {Heart}
18/200357  . . .  {Endocardium}
18/200363  . . .  { Epicardium}
18/200369  . . .  {Heart valves}
18/200375  . . .  {Ostium, e.g. ostium of pulmonary vein or artery}
18/20038  . . .  {Foramen ovale}
18/200386  . . .  {Coronary vessels}
18/200392  . . .  {Transmyocardial revascularisation}
18/200398  . . .  {Blood}
18/200404  . . .  {Blood vessels other than those in or around the heart}
18/200404  . . .  {Removal of thrombosis}
Surgery

[2018/00416] . . . [Treatment of aneurisms]
[2018/00422] . . . [Angioplasty]
[2018/00428] . . . [Severing]
[2018/00434] . . . [Neural system]
[2018/0044] . . . [Spinal cord]
[2018/00446] . . . [Brain]
[2018/00452] . . . [Skin]
[2018/00458] . . . [Deeper parts of the skin, e.g. treatment of vascular disorders or port wine stains]
[2018/00464] . . . [Subcutaneous fat, e.g. liposuction, lipolysis]
[2018/0047] . . . [Upper parts of the skin, e.g. skin peeling or treatment of wrinkles]
[2018/00476] . . . [Hair follicles]
[2018/00482] . . . [Digestive system]
[2018/00488] . . . [Esophagus]
[2018/00494] . . . [Stomach, intestines or bowel]
[2018/0050] . . . [Rectum]
[2018/00505] . . . [Urinary tract]
[2018/00511] . . . [Kidney]
[2018/00517] . . . [Urinary bladder or urethra]
[2018/00523] . . . [Treatment of incontinence]
[2018/00529] . . . [Liver]
[2018/00535] . . . [Biliary tract]
[2018/0054] . . . [Lung or bronchi]
[2018/00541] . . . [Prostate]
[2018/00553] . . . [Sphincter]
[2018/00559] . . . [Female reproductive organs]
[2018/00565] . . . [Bone]
[2018/00571] . . . [for achieving a particular surgical effect]
[2018/00577] . . . [Ablation]
[2018/00583] . . . [Coblation, i.e. ablation using a cold plasma]
[2018/00589] . . . [Coagulation]
[2018/00595] . . . [Cauterization]
[2018/00601] . . . [Cutting]
[2018/00607] . . . [Coagulation and cutting with the same instrument]
[2018/00613] . . . [Irreversible electroporation (reversible electroporation A61N 1/327)]
[2018/00619] . . . [Welding]
[2018/00625] . . . [Vaporization]
[2018/0063] . . . [Sealing]
[2018/00636] . . . [Sensing and controlling the application of energy]
[2018/00642] . . . [with feedback, i.e. closed loop control]
[2018/00648] . . . [using more than one sensed parameter]
[2018/00654] . . . [with individual control of each of a plurality of energy emitting elements]
[2018/0066] . . . [without feedback, i.e. open loop control]
[2018/00666] . . . [using a threshold value]
[2018/00672] . . . [lower]
[2018/00678] . . . [upper]
[2018/00684] . . . [using lookup tables]
[2018/0069] . . . [using fuzzy logic]
[2018/00696] . . . [Controlled or regulated parameters]
[2018/00702] . . . [Power or energy]
[2018/00708] . . . [switching the power on or off]
[2018/00714] . . . [Temperature]
[2018/0072] . . . [Current]
[2018/00726] . . . [Duty cycle]
[2018/00732] . . . [Frequency]
[2018/00738] . . . [Depth, e.g. depth of ablation]
[2018/00744] . . . [Fluid flow]

[2018/0075] . . . [Phase]
[2018/00755] . . . [Resistance or impedance]
[2018/00761] . . . [Duration]
[2018/00767] . . . [Voltage]
[2018/00773] . . . [Sensed parameters]
[2018/00779] . . . [Power or energy]
[2018/00785] . . . [Reflected power]
[2018/00791] . . . [Temperature]
[2018/00797] . . . [measured by multiple temperature sensors]
[2018/00803] . . . [with temperature prediction]
[2018/00809] . . . [measured thermochromatically]
[2018/00815] . . . [measured by a thermistor]
[2018/00821] . . . [measured by a thermocouple]
[2018/00827] . . . [Current]
[2018/00833] . . . [Differential current]
[2018/00839] . . . [Bioelectrical parameters, e.g. ECG, EEG]
[2018/00845] . . . [Frequency]
[2018/00851] . . . [fundamental]
[2018/00857] . . . [harmonic]
[2018/00863] . . . [Fluid flow]
[2018/00869] . . . [Phase]
[2018/00875] . . . [Resistance or impedance]
[2018/0088] . . . [Vibration]
[2018/00886] . . . [Duration]
[2018/00892] . . . [Voltage]
[2018/00898] . . . [Alarms or notifications created in response to an abnormal condition]
[2018/00904] . . . [Automatic detection of target tissue]
[2018/0091] . . . [Handpieces of the surgical instrument or device]
[2018/00916] . . . [with means for switching or controlling the main function of the instrument or device]
[2018/00922] . . . [by switching or controlling the treatment energy directly within the hand-piece]
[2018/00928] . . . [by sending a signal to an external energy source]
[2018/00934] . . . [the signal being non electric, e.g. pneumatic, hydraulic, optical]
[2018/0094] . . . [Types of switches or controllers]
[2018/00946] . . . [slidable]
[2018/00952] . . . [rotatable]
[2018/00958] . . . [for switching between different working modes of the main function]
[2018/00964] . . . [Features of probes]
[2018/0097] . . . [Cleaning probe surfaces]
[2018/00976] . . . [with scraping means]
[2018/00982] . . . [combined with or comprising means for visual or photographic inspections inside the body, e.g. endoscopes]
[2018/00988] . . . [Means for storing information, e.g. calibration constants, or for preventing excessive use, e.g. usage, service life counter]
[2018/00994] . . . [combining two or more different kinds of non-mechanical energy or combining one or more non-mechanical energies with ultrasound]

18/02 by cooling, e.g. cryogenic techniques (devices for cooling specific reflex points of the body within cell-life limits A61H 39/06)
18/0206 . . . [ultrasonic, e.g. for destroying tissue or enhancing freezing]
2018/0212 . . . [using an instrument inserted into a body lumen, e.g. catheter]
Surgery

18/0218 . . . [with open-end cryogenic probe, e.g. for spraying fluid directly on tissue or via a tissue-contacting porous tip]
18/0225 . . . [using an instrument for clamping tissue, e.g. forceps]
18/0231 . . . [Characteristics of handpieces or probes]
18/0237 . . . [with a thermoelectric element in the probe for cooling purposes]
18/0243 . . . [cooling of the hot side of the junction, e.g. heat sink]
18/025 . . . [by circulating liquid]
18/0256 . . . [by circulating gas, e.g. air]
18/0262 . . . [using a circulating cryogenic fluid]
18/0268 . . . [with restriction of flow]
18/0275 . . . [using porous elements]
18/0281 . . . [using a tortuous path, e.g. formed by fins or ribs]
18/0287 . . . [the fluid flowing through a long thin tube with spiral shape]
18/0293 . . . [using an instrument interstitially inserted into the body, e.g. needle]
18/04 . . . by heating (by applying electromagnetic radiation A61B 18/18; hyperthermia using electric or magnetic fields, radiation or ultrasound A61N)
18/042 . . . [using additional gas becoming plasma]
18/044 . . . [the surgical action being effected by a circulating hot fluid]
18/046 . . . [in liquid form]
18/048 . . . [in gaseous form]
18/06 . . . caused by chemical reaction [. e.g. moxaburners]
18/062 . . . [one of the reactants being oxygen]
18/064 . . . [Moxaburners]
18/066 . . . [one of the reactants being oxygen not from the air]
18/068 . . . [none of the reactants being oxygen]
18/08 . . . [by means of electrically-heated probes]
18/082 . . . [Probes or electrodes therefor]
18/085 . . . [Forceps, scissors]
18/087 . . . [using semiconductors as heating element]
18/10 . . . Power sources therefor
18/12 . . . by passing a current through the tissue to be heated, e.g. high-frequency current
18/1206 . . . [Generators therefor]
18/1213 . . . [creating an arc]
18/122 . . . [ionizing, with corona]
18/1226 . . . [powered by a battery]
18/1233 . . . [with circuits for assuring patient safety]
18/124 . . . [switching the output to different electrodes, e.g. sequentially]
18/1246 . . . [characterised by the output polarity]
18/1253 . . . [monopolar]
18/126 . . . [bipolar]
18/1266 . . . [with DC current output]
18/1273 . . . [including multiple generators in one device]
18/128 . . . [generating two or more frequencies]
18/1286 . . . [having a specific transformer]
18/1293 . . . [having means to prevent interference]
18/14 . . . Probes or electrodes therefor
18/1402 . . . [Probes for open surgery]
18/1405 . . . [Electrodes having a specific shape]
18/1407 . . . [Loop]
18/141 . . . [Snare]
2018/1412 . . . [Blade]
2018/1415 . . . [multiple blades]
2018/1417 . . . [Ball]
2018/142 . . . [at least partly surrounding the target, e.g. concave, curved or in the form of a cave]
2018/1422 . . . [Hook]
2018/1425 . . . [Needle]
2018/1427 . . . [with a beveled end]
2018/143 . . . [multiple needles]
2018/1432 . . . [curved]
2018/1435 . . . [Spiral]
2018/1437 . . . [whereby the windings of the spiral touch each other such as to create a continuous surface]
2018/144 . . . [Wire]
18/1442 . . . [Probes having pivoting end effectors, e.g. forceps]
18/1445 . . . [at the distal end of a shaft, e.g. forceps or scissors at the end of a rigid rod]
18/1447 . . . [wherein sliding surfaces cause opening/closing of the end effectors]
2018/145 . . . [wherein the effectors remain parallel during closing and opening]
2018/1452 . . . [including means for cutting (A61B 2018/146 takes precedence)]
2018/1455 . . . [having a moving blade for cutting tissue grasped by the jaws]
2018/1457 . . . [having opposing blades cutting tissue grasped by the jaws, i.e. combined scissors and pliers]
2018/146 . . . [Scissors]
2018/1462 . . . [Tweezers]
2018/1465 . . . [Deflatable electrodes]
2018/1467 . . . [using more than two electrodes on a single probe]
2018/147 . . . [Electrodes transferring energy by capacitive coupling, i.e. with a dielectricum between electrode and target tissue]
2018/1472 . . . [for use with liquid electrolyte, e.g. virtual electrodes]
2018/1475 . . . [Electrodes retractable in or deployable from a housing]
18/1477 . . . [Needle-like probes]
18/148 . . . [having a short, rigid shaft for accessing the inner body transcutaneously, e.g. for neurosurgery or arthroscopy]
18/1482 . . . [having a long rigid shaft for accessing the inner body transcutaneously in minimal invasive surgery, e.g. laparoscopy]
18/1485 . . . [having a short rigid shaft for accessing the inner body through natural openings]
18/1487 . . . [Trocar-like, i.e. devices producing an enlarged transcutaneous opening]
18/149 . . . [bow shaped or with rotatable body at cantilever end, e.g. for resectoscopes, or coagulating rollers]
18/1492 . . . [having a flexible, catheter-like structure, e.g. for heart ablation (A61B 18/1477 takes precedence)]
2018/1495 . . . [Electrodes being detachable from a support structure]
2018/1497 . . . [Electrodes covering only part of the probe circumference]
Surgery

A61B

18/16 . . . Indifferent or passive electrodes for grounding
2018/162 . . . {located on the probe body}
2018/165 . . . {Multiple indifferent electrodes}
2018/167 . . . {Passive electrodes capacitively coupled to the skin}

18/18 . by applying electromagnetic radiation, e.g. microwaves (radiation therapy A61N 5/00)
2018/1807 . . . {using light other than laser radiation}
2018/1815 . . . {using microwaves}
2018/1823 . . . {Generators therefor}
2018/183 . . . {characterised by the type of antenna}
2018/1838 . . . {Dipole antennas}
2018/1846 . . . {Helical antennas}
2018/1853 . . . {Monopole antennas}
2018/1861 . . . {with an instrument inserted into a body lumen or cavity, e.g. a catheter}
2018/1869 . . . {with an instrument interstitially inserted into the body, e.g. needles}
2018/1876 . . . {with multiple frequencies}
2018/1884 . . . {with non-uniform emissions}
2018/1892 . . . {Details of electrical isolations of the antenna}

18/20 . . . using laser
2018/2005 . . . {with beam delivery through an interstitially insertable device, e.g. needle}
18/201 . . . {with beam delivery through a hollow tube, e.g. forming an articulated arm (through a flexible conduit A61B 18/22); Hand-pieces therefor}

2018/2015 . . . {Miscellaneous features}
2018/202 . . . {Laser enclosed in a hand-piece}

WARNING
Groups A61B 2018/202 and A61B 2018/2023 should be considered in order to perform a complete search.

2018/2023 . . . {Self-contained devices, i.e. with power supply in the hand-piece}

WARNING
Groups A61B 2018/202 and A61B 2018/2023 should be considered in order to perform a complete search.

2018/2025 . . . {with a pilot laser}
18/203 . . . {applying laser energy to the outside of the body}

2018/2035 . . . {Beam shaping or redirecting; Optical components therefor (A61B 2018/2255 takes precedence)}

WARNING

2018/20351 . . . {Scanning mechanisms}

WARNING
Group A61B 2018/20351 is impacted by reclassification into groups A61B 2018/20353 and A61B 2018/20355.
Groups A61B 2018/20351, A61B 2018/20353 and A61B 2018/20355 should be considered in order to perform a complete search.

2018/20353 . . . {Scanning in three dimensions [3D]}

WARNING
Group A61B 2018/20353 is incomplete pending reclassification of documents from group A61B 2018/20351.
Groups A61B 2018/20353 and A61B 2018/20351 should be considered in order to perform a complete search.

2018/20355 . . . {Special scanning path or conditions, e.g. spiral, raster or providing spot overlap}

WARNING
Group A61B 2018/20355 is incomplete pending reclassification of documents from group A61B 2018/20351.
Groups A61B 2018/20355 and A61B 2018/20351 should be considered in order to perform a complete search.

2018/20357 . . . {by movable optical fibre end}
2018/20359 . . . {by movable mirrors, e.g. galvanometric}
2018/20361 . . . {with redirecting based on sensed condition, e.g. tissue analysis or tissue movement}

WARNING
Group A61B 2018/20361 is incomplete pending reclassification of documents from group A61B 2018/2035.
Groups A61B 2018/20361 and A61B 2018/2035 should be considered in order to perform a complete search.
2018/2055 . . . . . . [with mechanical means]

**WARNING**

Group A61B 2018/20553 is incomplete pending reclassification of documents from group A61B 2018/2035.

Groups A61B 2018/20553 and A61B 2018/2035 should be considered in order to perform a complete search.

2018/20554 . . . . . . (Arrangements for particular intensity distribution, e.g. tophat)

**WARNING**

Group A61B 2018/20554 is incomplete pending reclassification of documents from group A61B 2018/2035.

Groups A61B 2018/20554 and A61B 2018/2035 should be considered in order to perform a complete search.

2018/205545 . . . . . . [Arrangements for particular spot shape, e.g. square or annular]

**WARNING**

Group A61B 2018/205545 is incomplete pending reclassification of documents from group A61B 2018/2035.

Groups A61B 2018/205545 and A61B 2018/2035 should be considered in order to perform a complete search.

2018/205547 . . . . . . [Controller with specific architecture or programmatic algorithm for directing scan path, spot size or shape, or spot intensity, fluence or irradiance]

**WARNING**

Group A61B 2018/205547 is incomplete pending reclassification of documents from group A61B 2018/2035.

Groups A61B 2018/205547 and A61B 2018/2035 should be considered in order to perform a complete search.

2018/206 . . . . . . [the laser light passing along a liquid-filled conduit]
2018/2065 . . . . . . [Multiwave; Wavelength mixing, e.g. using four or more wavelengths (pilot laser A61B 2018/225)]
2018/207 . . . . . . [mixing two wavelengths]
2018/2075 . . . . . . [mixing three wavelengths]
2018/208 . . . . . . [with multiple treatment beams not sharing a common path, e.g. non-axial or parallel]
18/22 . . . . . . the beam being directed along or through a flexible conduit, e.g. an optical fibre; [Couplings or] hand-pieces therefor

**WARNING**

Group A61B 18/22 is impacted by reclassification into groups A61B 18/22 and A61B 2018/2247.

Groups A61B 18/22 and A61B 2018/2247 should be considered in order to perform a complete search.

2018/2065 . . . . . . [Characteristics of fibres]
2018/2211 . . . . . . [Plurality of fibres]
2018/2216 . . . . . . [Braided or helically wound]
2018/2222 . . . . . . [Fibre material or composition]
2018/2227 . . . . . . [Hollow fibres]
2018/2233 . . . . . . [Solid transparent for far infrared light]
2018/2238 . . . . . . [with means for selectively laterally deflecting the tip of the fibre]
2018/2244 . . . . . . [Features of optical fibre cables, e.g. claddings]
2018/2247 . . . . . . [Fibre breakage detection]

**WARNING**

Group A61B 2018/2247 is incomplete pending reclassification of documents from group A61B 18/22.

Groups A61B 18/22 and A61B 2018/2247 should be considered in order to perform a complete search.

2018/225 . . . . . . [Features of hand-pieces (A61B 2018/2255 takes precedence)]

**WARNING**

Group A61B 2018/225 is impacted by reclassification into group A61B 2018/2253.

Groups A61B 2018/225 and A61B 2018/2253 should be considered in order to perform a complete search.

2018/2253 . . . . . . [characterised by additional functions, e.g. surface cooling or detecting pathological tissue]

**WARNING**

Group A61B 2018/2253 is incomplete pending reclassification of documents from group A61B 2018/225.

Groups A61B 2018/2253 and A61B 2018/225 should be considered in order to perform a complete search.

2018/2255 . . . . . . [Optical elements at the distal end of probe tips]

**WARNING**

Group A61B 2018/2255 is impacted by reclassification into groups A61B 2018/2285 and A61B 2018/22853.

Groups A61B 2018/2285, A61B 2018/2285 and A61B 2018/22853 should be considered in order to perform a complete search.
Surgery

Computer-aided surgery; Manipulators or robots specially adapted for use in surgery

34/00  Computer-aided surgery; Manipulators or robots specially adapted for use in surgery

34/10  Computer-aided planning, simulation or modelling of surgical operations

2034/101  [Computer-aided simulation of surgical operations]

2034/102  [Modelling of surgical devices, implants or prosthesis]

2034/104  [Modelling the effect of the tool, e.g. the effect of an implanted prosthesis or for predicting the effect of ablation or burring]

2034/105  [Modelling of the patient, e.g. for ligaments or bones]

2034/107  [Visualisation of planned trajectories or target regions]

2034/108  [Computer aided selection or customisation of medical implants or cutting guides]

34/20  Surgical navigation systems; Devices for tracking or guiding surgical instruments, e.g. for frameless stereotaxis

2034/2046  [Tracking techniques]

2034/2048  [using an accelerometer or inertia sensor]

2034/2051  [Electromagnetic tracking systems]

2034/2053  [Tracking an applied voltage gradient]

2034/2055  [Optical tracking systems]

2034/2057  [Details of tracking cameras]

2034/2059  [Mechanical position encoders]

2034/2061  [using shape-sensors, e.g. fiber shape sensors with Bragg gratings]

2034/2063  [Acoustic tracking systems, e.g. using ultrasound]

2034/2065  [Tracking using image or pattern recognition]

2034/2068  [using pointers, e.g. pointers having reference marks for determining coordinates of body points]

2034/207  [Divots for calibration]

2034/2072  [Reference field transducer attached to an instrument or patient]

2034/2074  [Interface software]

34/25  [User interfaces for surgical systems]

2034/252  [indicating steps of a surgical procedure]

2034/254  [being adapted depending on the stage of the surgical procedure]

2034/256  [having a database of accessory information, e.g. including context sensitive help or scientific articles]

2034/258  [providing specific settings for specific users]

34/30  Surgical robots

2034/201  [for introducing or steering flexible instruments inserted into the body, e.g. catheters or endoscopes]

2034/302  [specifically adapted for manipulations within body cavities, e.g. within abdominal or thoracic cavities]

2034/303  [specifically adapted for manipulations within body lumens, e.g. within lumen of gut, spine, or blood vessels]

2034/304  [including a freely orientable platform, e.g. so called 'Stewart platforms']

2034/305  [Details of wrist mechanisms at distal ends of robotic arms]

2034/306  [Wrist with multiple vertebrae]

34/32  operating autonomously

34/35  for telesurgery

34/37  Master-slave robots (A61B 34/35 takes precedence)

34/70  [Manipulators specially adapted for use in surgery]

34/71  [Manipulators operated by drive cable mechanisms]

2034/715  [Cable tensioning mechanisms for removing slack]

34/72  [Micromanipulators]

34/73  [Manipulators for magnetic surgery]

2034/731  [Arrangement of the coils or magnets]

2034/732  [arranged around the patient, e.g. in a gantry]

2034/733  [arranged only on one side of the patient, e.g. under a table]

34/74  [Manipulators with manual electric input means]

2034/741  [Glove like input devices, e.g. "data gloves"]
Surgery

2050/0052 . . . [of two concentric cylinders with corresponding lateral openings, about their common longitudinal axis]
2050/0053 . . . [of two concentric parallelepipeds about a common longitudinal axis]
2050/0054 . . . [about the central longitudinal axis perpendicular to the lid plane]
2050/0055 . . . [about a lateral axis perpendicular to the lid plane]
2050/0056 . . . [about a lateral axis in the lid plane]
2050/0057 . . . [about a transverse axis in the lid plane]
2050/0058 . . . [closable by translation]
2050/0059 . . . [parallel to the lid plane]
2050/006 . . . [perpendicular to the lid plane, e.g. by a downward movement]
2050/0061 . . . [the height of the lid being adjustable with respect to the casing sidewalls]
2050/0062 . . . [closable by a combination of rotation and translation]
2050/0063 . . . [Bayonet coupling]
2050/0064 . . . [by screwing]
2050/0065 . . . [Peelable cover]
2050/0066 . . . [with additional sealing means, e.g. O-ring]
2050/0067 . . . [Types of closures or fasteners]
2050/0068 . . . [Cooperating dimples]
2050/0069 . . . [Press-buttons]
2050/007 . . . [Locking clamps]
2050/0071 . . . [Draw-strings]
2050/0072 . . . [Plugs, e.g. rubber plugs]
2050/0073 . . . [Ties]
2050/0074 . . . [Toggle latches or clamps]
2050/0075 . . . [Swingable wire bails or handles]
2050/0076 . . . [having additional locking means]
2050/0078 . . . [having additional unlocking means]
2050/0079 . . . [Magnetic closures]
2050/008 . . . [Pins cooperating with slots of a slideable locking bar]
2050/0082 . . . [Rib-and-groove connection]
2050/0083 . . . [Snap connection]
2050/0084 . . . [Tabs inserted into slots]
2050/0085 . . . [Hook and loop]
2050/0086 . . . [closed by or under vacuum]
2050/0087 . . . [closed in two steps]
2050/0088 . . . [Zip]
2050/0089 . . . [having permanent closure means]
2050/009 . . . [having additional means for temporarily preventing said permanent closure]
50/10 . . . [Furniture specially adapted for surgical or diagnostic appliances or instruments]
2050/0105 . . . [Cabinets]
50/13 . . . [Trolleys, e.g. carts]
50/15 . . . [Mayo stands; Tables]
2050/155 . . . [Mayo stands]
50/18 . . . [Cupboards; Drawers therefor]
2050/185 . . . [Drawers]
50/20 . . . [holders specially adapted for surgical or diagnostic appliances or instruments (drapes with means to hold surgical instruments A61B 46/23; for catheters A61M 25/02)]
2050/21 . . . [Magnetic holders]
50/22 . . . [Racks]
Surgery

50/24 . . . Stands (Mayo stands A61B 50/15)

**WARNING**

Group A61B 50/24 is impacted by reclassification into groups A61B 50/26 and A61B 50/28.

Groups A61B 50/24, A61B 50/26 and A61B 50/28 should be considered in order to perform a complete search.

50/26 . . . floor-based

**WARNING**

Group A61B 50/26 is impacted by reclassification into groups A61B 50/24.

Groups A61B 50/24, A61B 50/26 and A61B 50/28 should be considered in order to perform a complete search.

50/28 . . . suspended from the ceiling

**WARNING**

Group A61B 50/28 is impacted by reclassification of documents from group A61B 50/24.

Groups A61B 50/24, A61B 50/26 and A61B 50/28 should be considered in order to perform a complete search.

50/30 . . . Containers specially adapted for packaging, protecting, dispensing, collecting or disposing of surgical or diagnostic appliances or instruments (for wound clamps A61B 17/10; for ligaturing clips A61B 17/12; packages or dispensers for surgical gloves or finger-stalls A61B 42/40)

50/3001 . . . (for sharps)

2050/3002 . . . {including foam blocks for retaining sharps}

2050/3004 . . . {containing desiccant means, e.g. desiccant pouches}

2050/3005 . . . {containing a preservative liquid, e.g. an antiseptic liquid}

2050/3006 . . . {Nested casings}

2050/3007 . . . {Stackable casings}

2050/3008 . . . {having multiple compartments}

2050/3009 . . . {having means for connecting similar adjacent containers}

2050/301 . . . {carried on the medical practitioner's clothing or back}

2050/3011 . . . {having carrying handles}

2050/3012 . . . {Wrist hangers}

2050/3013 . . . {having means for automatically ejecting the stored article}

2050/3014 . . . {waterproof}

2050/3015 . . . {transparent}

50/31 . . . Carrying cases or bags, e.g. doctors' bags

50/311 . . . {Cases}

50/312 . . . {Doctors' or nurses' bags}

50/314 . . . {Flexible bags or pouches}

50/316 . . . {double- or multiple-walled}

50/318 . . . {Multi-pouches, e.g. strips of side-by-side pouches}

50/33 . . . Trays

50/34 . . . Baskets

50/36 . . . for collecting or disposing of used articles

50/362 . . . {for sharps}

2050/364 . . . {having additional means for destroying used sharps}

50/37 . . . for absorbent articles, e.g. bandages, garments, swabs or towels

2050/375 . . . {for sponges}

50/39 . . . the containers containing antimicrobial, antiviral or disinfectant agents

90/00 Instruments, implements or accessories especially adapted for surgery or diagnosis and not covered by any of the groups A61B 1/00 - A61B 50/00, e.g. for luxation treatment or for protecting wound edges (protective face masks A41D 13/11; surgeon's or patient's gowns or dresses A41D 13/12; devices for carrying-off, for treatment of, or for carrying-over, body liquids A61M 1/00)

90/02 . . . {Devices for expanding tissue, e.g. skin tissue (implements for holding wounds open, surgical tractors A61B 17/02; implantable mammary prosthesis A61F 2/12; dilators A61M 29/00)}

90/03 . . . {Automatic limiting or abutting means, e.g. for safety}

2090/031 . . . {torque limiting}

2090/032 . . . {pressure limiting, e.g. hydrostatic}

2090/033 . . . {Abutting means, stops, e.g. abutting on tissue or skin}

2090/034 . . . {abutting on parts of the device itself}

2090/035 . . . {preventing further rotation}

2090/036 . . . {abutting on tissue or skin}

2090/037 . . . {with a frangible part, e.g. by reduced diameter}

2090/038 . . . {during shipment}

90/04 . . . {Protection of tissue around surgical sites against effects of non-mechanical surgery, e.g. laser surgery (protection of eyes against laser radiation A61F 9/022)}

2090/0409 . . . {Specification of type of protection measures}

2090/0418 . . . {Compensation}

2090/0427 . . . {Prevention of contact}

2090/0436 . . . {Shielding}

2090/0445 . . . {by absorption}

2090/0454 . . . {by reflection}

2090/0463 . . . {against cooling or freezing}

2090/0472 . . . {against ultrasound energy}

2090/0481 . . . {against EM radiation, e.g. microwave}

2090/049 . . . {against light, e.g. laser}

90/05 . . . {Splash shields for protection of the surgeon, e.g. splash guards connected to the apparatus (A41D 13/11 takes precedence)}

90/06 . . . {Measuring instruments not otherwise provided for}

2090/061 . . . {for measuring dimensions, e.g. length}

2090/062 . . . {penetration depth}

2090/063 . . . {for measuring volume}

2090/064 . . . {for measuring force, pressure or mechanical tension}

2090/065 . . . {for measuring contact or contact pressure}

2090/066 . . . {for measuring torque}

2090/067 . . . {for measuring angles}

2090/068 . . . {with a bubble level}

2090/069 . . . {using a plummet or weight}

90/08 . . . {Accessories or related features not otherwise provided for}

2090/0801 . . . {Prevention of accidental cutting or pricking}

2090/08021 . . . {of the patient or his organs}
Surgery

90/30 Devices for illuminating a surgical field, the devices having an interrelation with other surgical devices or with a surgical procedure

WARNING
Group A61B 90/30 is impacted by reclassification into group A61B 90/35.
Groups A61B 90/30 and A61B 90/35 should be considered in order to perform a complete search.

90/36 Image-producing devices or illumination devices not otherwise provided for

WARNING
Group A61B 90/35 is incomplete pending reclassification of documents from group A61B 90/30.
Groups A61B 90/30 and A61B 90/35 should be considered in order to perform a complete search.

90/37 Surgical systems with images on a monitor during operation

90/38 with a rotating C-arm having a cone beam emitting source

90/39 [Markers, e.g. radio-opaque or breast lesions markers]
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### Surgery

2090/3904 . . . {specially adapted for marking specified tissue}  
2090/3908 . . . {Soft tissue, e.g. breast tissue}  
2090/3912 . . . {Bone cavities}  
2090/3916 . . . {Bone tissue}  
2090/392 . . . {Radioactive markers}  
2090/3925 . . . {ultrasonic}  
2090/3929 . . . {Active markers}  
2090/3933 . . . {Liquid markers}  
2090/3937 . . . {Visible markers}  
2090/3941 . . . {Photoluminescent markers}  
2090/3945 . . . {Active visible markers, e.g. light emitting diodes}  
2090/395 . . . {with marking agent for marking skin or other tissue}  
2090/3954 . . . {magnetic, e.g. NMR or MRI}  
2090/3958 . . . {emitting a signal}  
2090/3962 . . . {palpable}  
2090/3966 . . . {Radiopaque markers visible in an X-ray image}  
2090/397 . . . {electromagnetic other than visible, e.g. microwave}  
2090/3975 . . . {active}  
2090/3979 . . . {infrared}  
2090/3983 . . . {Reference marker arrangements for use with image guided surgery}  
2090/3987 . . . {Applicators for implanting markers}  
2090/3991 . . . {having specific anchoring means to fixate the marker to the tissue, e.g. hooks}  
2090/3995 . . . {Multi-modality markers}  
90/40 . . . Apparatus fixed or close to patients specially adapted for providing an aseptic surgical environment  
2090/401 . . . {using air flow}  
90/50 . . . Supports for surgical instruments, e.g. articulated arms  
2090/502 . . . {Headgear, e.g. helmet, spectacles}  
2090/5025 . . . {with a counter-balancing mechanism}  
2090/504 . . . {with a counterweight}  
2090/506 . . . {using a parallelogram linkage, e.g. panthograph}  
2090/508 . . . {with releasable brake mechanisms}  
90/53 . . . connected to the surgeon's body, e.g. by a belt  
90/57 . . . Accessory clamps  
2090/571 . . . {for clamping a support arm to a bed or other supports}  
90/60 . . . Supports for surgeons, e.g. chairs or hand supports (seats for dentists or surgeons associated with dental chairs or operating chairs A61G 15/00)  
90/70 . . . Cleaning devices specially adapted for surgical instruments  
2090/701 . . . {for flexible tubular instruments, e.g. endoscopes}  
2090/702 . . . {Devices for testing the cleaning process, e.g. test soils}  
90/80 . . . Implements for cleaning or washing the skin of surgeons or patients  
90/90 . . . Identification means for patients or instruments, e.g. tags  
90/92 . . . coded with colour  
90/94 . . . coded with symbols, e.g. text  
90/96 . . . using barcodes  
90/98 . . . using electromagnetic means, e.g. transponders

### A61B

#### Diagnosis: Psycho-physical tests

2218/00 Details of surgical instruments, devices or methods for transferring non-mechanical forms of energy to or from the body

2218/001 . . . having means for irrigation and/or aspiration of substances to and/or from the surgical site (A61B 2018/00029 and A61B 2018/1472 take precedence)  
2218/002 . . . Irrigation  
2218/003 . . . using a spray or a foam  
2218/005 . . . using gas or vapor, e.g. for protection or purging  
2218/006 . . . for smoke evacuation  
2218/007 . . . Aspiration  
2218/008 . . . for smoke evacuation

#### 2503/00 Evaluating a particular growth phase or type of persons or animals

2503/02 . . . Foetus  
2503/04 . . . Babies, e.g. for SIDS detection  
2503/045 . . . Newborns, e.g. premature baby monitoring  
2503/06 . . . Children, e.g. for attention deficit diagnosis  
2503/08 . . . Elderly  
2503/10 . . . Athletes  
2503/12 . . . Healthy persons not otherwise provided for, e.g. subjects of a marketing survey  
2503/20 . . . Workers  
2503/22 . . . Motor vehicles operators, e.g. drivers, pilots, captains  
2503/24 . . . Computer workstation operators  
2503/40 . . . Animals  
2503/42 . . . for laboratory research

#### 2505/00 Evaluating, monitoring or diagnosing in the context of a particular type of medical care

2505/01 . . . Emergency care  
2505/03 . . . Intensive care  
2505/05 . . . Surgical care  
2505/07 . . . Home care  
2505/09 . . . Rehabilitation or training

#### 2560/00 Constructing details of operational features of apparatus; Accessories for medical measuring apparatus

2560/02 . . . Operational features  
2560/0204 . . . of power management  
2560/0209 . . . adapted for power saving  
2560/0214 . . . of power generation or supply  
2560/0219 . . . of externally powered implanted units  
2560/0223 . . . of calibration, e.g. protocols for calibrating sensors  
2560/0228 . . . using calibration standards  
2560/0233 . . . Optical standards  
2560/0238 . . . Means for recording calibration data  
2560/0242 . . . adapted to measure environmental factors, e.g. temperature, pollution  
2560/0247 . . . for compensation or correction of the measured physiological value  
2560/0252 . . . using ambient temperature
Diagnosis; Psycho-physical tests

2560/0257 . . . using atmospheric pressure
2560/0261 . . . using hydrostatic pressure
2560/0266 . . . for monitoring or limiting apparatus function
2560/0271 . . . using a remote monitoring unit
2560/0276 . . . Determining malfunction
2560/028 . . . Arrangements to prevent overuse, e.g. by counting the number of uses
2560/0285 . . . Apparatus for single use
2560/029 . . . adapted for auto-initiation
2560/0295 . . . adapted for recording user messages or annotations
2560/04 . . . Constructional details of apparatus
2560/0406 . . . specially shaped apparatus housings
2560/0412 . . . Low-profile patch shaped housings
2560/0418 . . . Pen-shaped housings
2560/0425 . . . Ergonomically shaped housings
2560/0431 . . . Portable apparatus, e.g. comprising a handle or case
2560/0437 . . . Trolley or cart-type apparatus
2560/0443 . . . Modular apparatus
2560/045 . . . with a separable interface unit, e.g. for communication
2560/0456 . . . Apparatus provided with a docking unit
2560/0462 . . . Apparatus with built-in sensors
2560/0468 . . . Built-in electrodes
2560/0475 . . . Special features of memory means, e.g. removable memory cards
2560/0481 . . . in implanted apparatus
2560/0487 . . . Special user inputs or interfaces
2560/0493 . . . controlled by voice
2560/04 . . . Accessories for medical measuring apparatus
2560/063 . . . Devices specially adapted for delivering implantable medical measuring apparatus
2560/066 . . . catheters therefor

2562/00 . . . Details of sensors; Constructional details of sensor housings or probes; Accessories for sensors
2562/02 . . . Details of sensors specially adapted for in-vivo measurements
2562/0204 . . . Acoustic sensors
2562/0209 . . . Special features of electrodes classified in A61B 5/0401, A61B 5/0408, A61B 5/042, A61B 5/0478, A61B 5/0492 or A61B 5/053

WARNING
Group A61B 2562/0209 is impacted by reclassification into groups A61B 2562/0215 and A61B 2562/0217. Groups A61B 2562/0209, A61B 2562/0215, and A61B 2562/0217 should be considered in order to perform a complete search.

2562/0214 . . . Capacitive electrodes
2562/0215 . . . Silver or silver chloride containing

WARNING
Group A61B 2562/0215 is incomplete pending reclassification of documents from group A61B 2562/0209. Groups A61B 2562/0209 and A61B 2562/0215 should be considered in order to perform a complete search.

2562/0217 . . . Electrolyte containing

WARNING
Group A61B 2562/0217 is incomplete pending reclassification of documents from group A61B 2562/0209. Groups A61B 2562/0209 and A61B 2562/0217 should be considered in order to perform a complete search.

2562/0219 . . . Inertial sensors, e.g. accelerometers, gyroscopes, tilt switches
2562/0223 . . . Magnetic field sensors
2562/0228 . . . Microwave sensors
2562/0233 . . . Special features of optical sensors or probes classified in A61B 5/00

2562/0238 . . . Optical sensor arrangements for performing transmission measurements on body tissue
2562/0242 . . . for varying or adjusting the optical path length in the tissue
2562/0247 . . . Pressure sensors
2562/0252 . . . Load cells
2562/0257 . . . Proximity sensors
2562/0261 . . . Strain gauges
2562/0266 . . . Optical strain gauges
2562/0271 . . . Thermal or temperature sensors
2562/0276 . . . comprising a thermosensitive compound
2562/028 . . . Microscale sensors, e.g. electromechanical sensors [MEMS]
2562/0285 . . . Nanoscale sensors
2562/0289 . . . Humidity sensors
2562/0295 . . . Strip shaped analyte sensors for apparatus classified in A61B 5/145 or A61B 5/157 (disposable multilayered or laminated electrodes G01N 27/307; details of handling chemical test elements G01N 33/4875)

2562/024 . . . Arrangements of multiple sensors of the same type
2562/043 . . . in a linear array
2562/046 . . . in a matrix array
2562/06 . . . Arrangements of multiple sensors of different types
2562/063 . . . in a linear array
2562/066 . . . in a matrix array
2562/028 . . . Sensors provided with means for identification, e.g. barcodes or memory chips
2562/085 . . . combined with means for recording calibration data
2562/12 . . . Manufacturing methods specially adapted for producing sensors for in-vivo measurements
2562/125 . . . characterised by the manufacture of electrodes
2562/14 . . . Coupling media or elements to improve sensor contact with skin or tissue
2562/143 . . . for coupling microwaves
2562/146 . . . for optical coupling
2562/16 . . . Details of sensor housings or probes; Details of structural supports for sensors (A61B 2560/0462 takes precedence)

WARNING
Group A61B 2562/16 is impacted by reclassification into group A61B 2562/17. Groups A61B 2562/16 and A61B 2562/17 should be considered in order to perform a complete search.
2562/162 . . Capsule shaped sensor housings, e.g. for swallowing or implantation
2562/164 . . the sensor is mounted in or on a conformable substrate or carrier
2562/166 . . the sensor is mounted on a specially adapted printed circuit board
2562/168 . . Fluid filled sensor housings
2562/17 . . Comprising radiolucent components

**WARNING**

Group A61B 2562/17 is incomplete pending reclassification of documents from group A61B 2562/16.

Groups A61B 2562/16 and A61B 2562/17 should be considered in order to perform a complete search.

2562/18 . . Shielding or protection of sensors from environmental influences, e.g. protection from mechanical damage
2562/182 . . Electrical shielding, e.g. using a Faraday cage
2562/185 . . Optical shielding, e.g. baffles
2562/187 . . Strain relief means
2562/22 . . Arrangements of medical sensors with cables or leads; Connectors or couplings specifically adapted for medical sensors
2562/221 . . Arrangements of sensors with cables or leads, e.g. cable harnesses
2562/222 . . . Electrical cables or leads therefor, e.g. coaxial cables or ribbon cables
2562/223 . . . Optical cables therefor
2562/224 . . . Cables for conducting fluids therefor
2562/225 . . . Connectors or couplings
2562/226 . . . comprising means for identifying the connector, e.g. to prevent incorrect connection to socket
2562/227 . . . Sensors with electrical connectors
2562/228 . . . Sensors with optical connectors
2562/24 . . Hygienic packaging for medical sensors; Maintaining apparatus for sensor hygiene
2562/242 . . . Packaging, i.e. for packaging the sensor or apparatus before use
2562/245 . . . Means for cleaning the sensor in-situ or during use, e.g. hygienic wipes
2562/247 . . . Hygienic covers, i.e. for covering the sensor or apparatus during use

2576/00 Medical imaging apparatus involving image processing or analysis (A61B 1/00009; A61B 6/52 and A61B 8/52 take precedence; image processing per se G06T; details of algorithms for analysing medical images G06T 7/0012)
2576/02 . . specially adapted for a particular organ or body part
2576/023 . . . for the heart
2576/026 . . . for the brain