

G10 MUSICAL INSTRUMENTS; ACOUSTICS

- (1) This class covers all sound-emitting devices, in general, whether or not they may be considered as being musical.
- (2) In this class, the following expression is used with the meaning indicated:
 - “musical instrument” does not exclude devices emitting a single sound signal.
- (3) The following Class Index is given in place of subclass indexes, to show the grouping of the elaborations belonging to different subclasses, under the following three fundamental types:
 - wind instruments;
 - string instruments;
 - percussion instruments,
 which relate clearly to the majority of instruments.
- (4) There are of course some instruments of which the principle of operation belongs less clearly to one of the three types mentioned in Note (3). They correspond to groups G10D 17/00 or G10K 7/00, G10K 9/00 or G10K 15/04, all the other groups normally finding a definite place.

Class index

ACOUSTICS; OPERATIONS ON SOUND WAVES

Speech analysis or synthesis;
speech recognition; audio analysis
or processing G10L

Methods or devices for transmission
of sound or protection against
sound, not otherwise provided for..... G10K 11/00, 13/00

Acoustics not otherwise provided
for G10K 15/00

WIND INSTRUMENTS

General features; details or
accessories G10D 7/00; 9/00

Organs, harmoniums or similar
instruments G10B 1/00, 3/00

Accordions, concertinas or similar
instruments; other types of
instruments G10D 11/00; 7/00

Whistles; horns G10K 5/00; 9/00

STRINGED INSTRUMENTS

General features; details or
accessories G10D 1/00; 3/00

Pianos, harpsichords, spinets or
similar stringed musical instruments
with one or more keyboards; tools
and methods for the manufacture or
maintenance thereof G10C 1/00, 3/00;
9/00

Other instruments G10D 1/00

PERCUSSION INSTRUMENTS

Bells, rattles or similar instruments G10K 1/00, 3/00

Other instruments G10D 13/00

OTHER PARTICULAR DEVICES; DEVICES USING UNDEFINED PRINCIPLES; COMBINATIONS OF INSTRUMENTS; MUSIC ACCESSORIES

Electroponic musical instruments G10H

Automatic musical instruments G10F

Sirens; devices with vibrators G10K 7/00; 9/00

Combinations: of pianos with other
instruments; of other instruments G10C 5/00;
G10D 15/00

Music accessories G10G

INSTRUMENTS NOT OTHERWISE PROVIDED FOR G10D 17/00

G10B ORGANS; HARMONIUMS OR LIKE WIND-ACTUATED MUSICAL INSTRUMENTS (mouth organs G10D 7/12; accordions G10D 11/00; aspects of automatic actuation G10F 1/12; combinations of microphones, pick-ups or amplifiers with musical instruments G10H; electronic organs G10H 7/00)

1/00 General design

- 1/02 . of organs
- 1/04 . . electrically operated
- 1/06 . . fluid operated
- 1/08 . of harmoniums

3/00 Details or accessories

- 3/02 . Blowers
- 3/04 . Reservoirs
- 3/06 . Valves; Sleeves

- 3/08 . Pipes, e.g. open pipes or reed pipes
- 3/10 . Actions, e.g. coupler
- 3/12 . Keys or keyboards; Manuals
- 3/14 . Pedals or pedal boards
- 3/16 . Swell chambers; Accentuating means
- 3/18 . Tremolo-producing devices
- 3/20 . Transposing devices
- 3/22 . Details specially adapted for electrically-operated organs, e.g. contacts therein

G10C PIANOS, HARPSICHOIDS, SPINETTS OR SIMILAR STRINGED MUSICAL INSTRUMENTS WITH ONE OR MORE KEYBOARDS (non-musical aspects of toy pianos A63H 5/00; aspects of automatic actuation G10F; combinations of microphones, pick-ups or amplifiers with musical instruments G10H)

1/00	General design	3/18	. . Hammers
1/02	. of upright pianofortes	3/20	. . involving the use of hydraulic, pneumatic, or electromagnetic means
1/04	. of grand pianofortes	3/22	. . for grand pianofortes
1/06	. of harpsichords, spinets or similar stringed instruments	3/24	. . for reciprocating of tremolo
3/00	Details or accessories	3/26	. Pedals or pedal mechanisms for half-blow or similar sound-modifying
3/02	. Cases	3/28	. Transposing devices
3/04	. Frames; Bridges; Bars	3/30	. Couplers, e.g. for playing octaves
3/06	. Resonating means, e.g. resonant strings, soundboards; Fastenings of the resonating means	5/00	Combinations with other musical instruments, e.g. with bells or xylophones
3/08	. Arrangements of strings	9/00	Methods or tools specially adapted for the manufacture or maintenance of musical instruments covered by this subclass
3/10	. Tuning pins or straining devices		
3/12	. Keyboards; Keys		
3/14	. . for actuation by the feet		
3/16	. Actions		

G10D STRINGED MUSICAL INSTRUMENTS; WIND-ACTUATED MUSICAL INSTRUMENTS; ACCORDIONS OR CONCERTINAS; PERCUSSION MUSICAL INSTRUMENTS; MUSICAL INSTRUMENTS NOT OTHERWISE PROVIDED FOR (automatic musical instruments G10F; combinations of musical instruments with microphones, pick-ups or amplifiers G10H; sound-producing devices not regarded as musical instruments G10K)

- (1) *This subclass covers certain stringed musical instruments that can optionally include a keyboard, e.g. zithers. [2010.01]*
- (2) *This subclass does not cover pianos, harpsichords, spinets or similar stringed instruments provided by design with one or more keyboards, which are covered by subclass G10C. [2010.01]*

1/00	General design of stringed musical instruments, e.g. violins, harps, mandolins, guitars, banjos or zithers	7/00	General design of wind-actuated musical instruments, e.g. flutes, ocarinas, oboes, clarinets, bagpipes, saxophones, trumpets or mouth-organs (accordions or concertinas G10D 11/00; organs or harmoniums G10B; whistles G10K)
1/02	. of violins, violas, violoncellos, basses	7/02	. of the type wherein an air current is directed against a ramp edge, e.g. flutes or recorders
1/04	. of harps, lyres	7/04	. . Ocarinas
1/06	. of mandolins	7/06	. of the type with a beating reed [Rohrblatt] or reeds, e.g. oboes, clarinets, bassoons or bagpipes
1/08	. of guitars	7/08	. . Saxophones
1/10	. of banjos	7/10	. of the type with a cupped mouthpiece, e.g. cornets, orchestral trumpets or trombones
1/12	. of zithers, e.g. autoharp	7/12	. of the type with free reeds [Zunge], e.g. mouth-organs or trumpets for children
3/00	Details of, or accessories for, stringed musical instruments, e.g. slide-bars	9/00	Details of, or accessories for, wind-actuated musical instruments
3/02	. Resonating means, horns, or diaphragms	9/02	. Mouthpieces; Reeds
3/04	. Bridges, mutes, or capo-tastos	9/04	. Valves; Valve controls
3/06	. Fingerboards	9/06	. Mutes
3/08	. . in the form of keyboards	11/00	Accordions, concertinas or the like; Keyboards therefor
3/10	. Strings	11/02	. Actions
3/12	. Anchoring devices for strings, e.g. tail pieces or hitchpins	13/00	Percussion musical instruments, e.g. drums, tambourines, timpani, castanets, cymbals, triangles, gongs or plates; Details or accessories
3/14	. Tuning devices, e.g. pegs, pins or friction discs	13/02	. Drums; Tambourines
3/16	. Bows; Guides for bows; Plectra or like playing means	13/04	. Timpani
3/18	. Chin-rests, hand-rests or guards as part of the instrument		

13/06	• Castanets, cymbals, triangles or other single-toned percussion musical instruments (bells G10K 1/00)	15/00	Combinations of different musical instruments (combinations with pianos, harpsichords, spinets or similar stringed instruments with one or more keyboards G10C 5/00)
13/08	• Multi-toned musical instruments, with sonorous bars, blocks, forks, gongs, plates, rods, or teeth	17/00	Musical instruments not provided for in any other group of this subclass, e.g. Aeolian harp, singing-flame musical instrument

G10F AUTOMATIC MUSICAL INSTRUMENTS (non-musical aspects of toy instruments A63H 5/00; sound-recording or reproducing G11B; working in association with recording or reproducing apparatus G11B 31/02)

Note

This subclass does not cover aspects of musical instruments which are independent of the automatic actuation, which are covered by subclass G10B, G10C or G10D.

1/00	Automatic musical instruments	1/18	• . . to be played by a bow
1/02	• Pianofortes with keyboard	1/20	• . . to be plucked
1/04	• Pianofortes which have no keyboard	1/22	• Combinations of two or more instruments
1/06	• Musical boxes with plucked teeth, blades, or the like (combinations with other articles, <u>see</u> the relevant classes for the articles)	3/00	Independent players for keyboard instruments
1/08	• Percussion musical instruments	5/00	Details or accessories
1/10	• . Carillons	5/02	• Actions
1/12	• Wind-actuated instruments	5/04	• Tune barrels, sheets, rollers, spools, or the like
1/14	• . Barrel-organs	5/06	• . Driving or setting of tune barrels, discs, or the like; Winding, rewinding, or guiding of tune sheets or the like
1/16	• Stringed musical instruments other than pianofortes		

G10G AIDS FOR MUSIC (teaching music G09B 15/00); **SUPPORTS FOR MUSICAL INSTRUMENTS; OTHER AUXILIARY DEVICES OR ACCESSORIES FOR MUSIC OR MUSICAL INSTRUMENTS** (metronomes G04F 5/02)

1/00	Means for the representation of music	5/00	Supports for musical instruments
1/02	• Chord or note indicators, fixed or adjustable, for keyboards or fingerboards	7/00	Other auxiliary devices or accessories, e.g. conductors' batons or separate holders for resin or strings
1/04	• Transposing; Transcribing	7/02	• Tuning forks or like devices
3/00	Recording music in notation form, e.g. recording the mechanical operation of a musical instrument		
3/02	• using mechanical means only		
3/04	• using electrical means		

G10H ELECTROPHONIC MUSICAL INSTRUMENTS; INSTRUMENTS IN WHICH THE TONES ARE GENERATED BY ELECTROMECHANICAL MEANS OR ELECTRONIC GENERATORS, OR IN WHICH THE TONES ARE SYNTHESISED FROM A DATA STORE

Note

This subclass covers musical instruments in which individual notes are constituted as electric oscillations under the control of a performer and the oscillations are converted to sound-vibrations by a loudspeaker or equivalent device.

1/00	Details of electrophonic musical instruments (keyboards applicable also to other musical instruments G10B, G10C; arrangements for producing a reverberation or echo sound G10K 15/08) [5]	1/04	• . . by additional modulation
		1/043	• . . . Continuous modulation [3]
		1/045	• . . . by electromechanical means [3]
1/02	• Means for controlling the tone frequencies, e.g. attack or decay; Means for producing special musical effects, e.g. vibratos or glissandos	1/047	• . . . by acousto-mechanical means, e.g. rotating speakers or sound deflectors [3]
		1/053	• . . . during execution only [3]

- 1/055 by switches with variable impedance elements [3]
- 1/057 by envelope-forming circuits [3]
- 1/06 . . Circuits for establishing the harmonic content of tones
- 1/08 by combining tones (G10H 1/14, G10H 1/16 take precedence; chord G10H 1/38; speech analysis or synthesis, G10L) [3]
- 1/10 for obtaining chorus, celeste or ensemble effects (continuous modulation G10H 1/043) [3]
- 1/12 by filtering complex waveforms (G10H 1/14, G10H 1/16 take precedence) [3]
- 1/14 during execution (modulation during execution G10H 1/053) [3]
- 1/16 by non-linear elements (G10H 1/14 takes precedence; generation of non-sinusoidal basic tones G10H 5/10) [3]
- 1/18 . Selecting circuits [3]
- 1/20 . . for transposition [3]
- 1/22 . . for suppressing tones; Preference networks [3]
- 1/24 . . for selecting plural preset register stops [3]
- 1/26 . . for automatically producing a series of tones [3]
- 1/28 to produce arpeggios [3]
- 1/30 to reiteratively sound two tones [3]
- 1/32 . Constructional details [3]
- 1/34 . . Switch arrangements, e.g. keyboards or mechanical switches peculiar to electrophonic musical instruments (keyboards applicable also to other musical instruments G10B, G10C) [3]
- 1/36 . Accompaniment arrangements [3]
- 1/38 . . Chord [3]
- 1/40 . . Rhythm (metronomes G04F 5/02) [3]
- 1/42 comprising tone forming circuits [3]
- 1/44 . Tuning means [3]
- 1/46 . Volume control [3]
- 3/00 Instruments in which the tones are generated by electromechanical means**
- 3/02 . using mechanical interrupters
- 3/03 . using pick-up means for reading recorded waves, e.g. on rotating discs [3]
- 3/06 . . using photoelectric pick-up means
- 3/08 . . using inductive pick-up means
- 3/09 using tapes or wires [3]
- 3/10 . . using capacitive pick-up means
- 3/12 . using mechanical resonant generators, e.g. strings or percussion instruments, the tones of which are picked up by electromechanical transducers, the electrical signals being further manipulated or amplified and subsequently converted to sound by a loudspeaker or equivalent device [3]
- 3/14 . . using mechanically actuated vibrators with pick-up means (G10H 3/24 takes precedence) [3]
- 3/16 using a reed [3]
- 3/18 using strings, e.g. electric guitars [3]
- 3/20 using a tuning fork, rod or tube [3]
- 3/22 . . using electromechanically actuated vibrators with pick-up means (G10H 3/24 takes precedence) [3]
- 3/24 . . incorporating feedback means, e.g. acoustic [3]
- 3/26 using electric feedback [3]
- 5/00 Instruments in which the tones are generated by means of electronic generators** (G10H 7/00 takes precedence) [3]
- 5/02 . using generation of basic tones
- 5/04 . . with semiconductor devices as active elements (G10H 5/10, G10H 5/12 take precedence)
- 5/06 . . tones generated by frequency multiplication or division of a basic tone
- 5/07 resulting in complex waveforms [3]
- 5/08 . . tones generated by heterodyning
- 5/10 . using generation of non-sinusoidal basic tones, e.g. sawtooth
- 5/12 . . using semiconductor devices as active elements
- 5/14 . using electromechanical resonators, e.g. quartz crystals, as frequency-determining elements [3]
- 5/16 . using cathode ray tubes [3]
- 7/00 Instruments in which the tones are synthesised from a data store, e.g. computer organs** (synthesis of acoustic waves not specific to musical instruments G10K 15/02, G10L) [3,5]
- 7/02 . in which amplitudes at successive sample points of a tone waveform are stored in one or more memories [5]
- 7/04 . . in which amplitudes are read at varying rates, e.g. according to pitch [5]
- 7/06 . . in which amplitudes are read at a fixed rate, the read-out address varying stepwise by a given value, e.g. according to pitch [5]
- 7/08 . by calculating functions or polynomial approximations to evaluate amplitudes at successive sample points of a tone waveform [5]
- 7/10 . . using coefficients or parameters stored in a memory, e.g. Fourier coefficients (G10H 7/12 takes precedence) [5]
- 7/12 . . by means of a recursive algorithm using one or more sets of parameters stored in a memory and the calculated amplitudes of one or more preceding sample points [5]

G10K SOUND-PRODUCING DEVICES (sound-producing toys A63H 5/00); **METHODS OR DEVICES FOR PROTECTING AGAINST, OR FOR DAMPING, NOISE OR OTHER ACOUSTIC WAVES IN GENERAL; ACOUSTICS NOT OTHERWISE PROVIDED FOR** [6]

- (1) This subclass covers arrangements for generating mechanical vibrations in fluids. [6]
- (2) This subclass covers also the production of sounds which may not be audible to human beings but which are audible to animals.

- (3) In this subclass, the following terms are used with the meanings indicated: [6]
 – “acoustics” and “sound” cover the technical field dealing with mechanical vibrations at all infrasonic-, sonic- and ultrasonic frequencies. However, generation or transmission of mechanical waves, in general, is covered by subclass B06B, subject to the exception specified in Note (1) above. [6]

1/00	Devices in which sound is produced by striking a resonating body, e.g. bells, chimes or gongs (combinations with clocks or watches G04B, G04C; multi-toned musical instruments G10D 13/08; automatic carillons G10F 1/10)	Note	This group does not cover the construction of, or circuits for, broadband-transducers such as loudspeakers or microphones, which are covered by subclass H04R. [6]
1/06	. the resonating device having the shape of a bell, plate, rod, or tube (bells for towers G10K 1/28)	9/122	. . using piezo-electric driving means [6]
1/062	. . electrically operated	9/125	. . . with a plurality of active elements [6]
1/063	. . . the sounding member being a bell	9/128	. . using magnetostrictive driving means [6]
1/064	. . . . Operating or striking mechanisms therefor	9/13	. . using electromagnetic driving means [3]
1/065	. . . . . for timed or repeated operation	9/15	. . . Self-interrupting arrangements [3]
1/066	. . . the sounding member being a tube, plate, or rod	9/16	. . with means for generating the current by muscle power
1/067	. . . . Operating or striking mechanisms therefor	9/18	. Details, e.g. bulbs, pumps, pistons, switches or casings
1/068	. . hydraulically operated; pneumatically operated	9/20	. . Sounding members
1/07	. . mechanically operated; Hand bells; Bells for animals	9/22	. . Mountings; Casings
1/071	. . . Hand bells; Bells for animals	11/00	Methods or devices for transmitting, conducting or directing sound in general; Methods or devices for protecting against, or for damping, noise or other acoustic waves in general
1/072	. . . Operating or striking mechanisms therefor	11/02	. Mechanical acoustic impedances; Impedance matching, e.g. by horns; Acoustic resonators [3]
1/074	. . . . with rotary clappers or shells	11/04	. . Acoustic filters [3]
1/076	. . . . . for timed or repeated operation	11/08	. Non-electric sound-amplifying devices, e.g. non-electric megaphones (amplifying by horns G10K 11/02; amplifying by focusing G10K 11/26)
1/08	. . Details or accessories of general applicability	11/16	. Methods or devices for protecting against, or for damping, noise or other acoustic waves in general (G10K 11/36 takes precedence) [3]
1/10	. . . Sounding members; Mounting thereof; Clappers or other strikers	11/162	. . Selection of materials [6]
1/26	. . . Mountings; Casings	11/165	. . . Particles in a matrix [6]
1/28	. Bells for towers or the like	11/168	. . . Plural layers of different materials, e.g. sandwiches [6]
1/30	. . Details or accessories	Note	When classifying in this group, classification is also made in subclass B32B, insofar as any layered product is concerned. [6]
1/32	. . . Sounding members; Clappers or other strikers	11/172	. . using resonance effects [6]
1/34	. . . Operating mechanisms	11/175	. . using interference effects; Masking sound [6]
1/36	. . . Means for silencing or damping (means or arrangements for avoiding or reducing out-of-balance forces due to motion F16F 15/00)	11/178	. . . by electro-acoustically regenerating the original acoustic waves in anti-phase [6]
1/38	. . . Supports; Mountings	11/18	. Methods or devices for transmitting, conducting or directing sound (G10K 11/02, G10K 11/36 take precedence; medical stethoscopes A61B 7/02) [3]
3/00	Rattles or like noise-producing devices	11/20	. . Reflecting arrangements (G10K 11/28 takes precedence) [3]
5/00	Whistles	11/22	. . for conducting sound through hollow pipes, e.g. speaking tubes [3]
5/02	. Ultrasonic whistles [3]	11/24	. . for conducting sound through solid bodies, e.g. wires [3]
7/00	Sirens	11/26	. . Sound-focusing or directing, e.g. scanning [3]
7/02	. in which the sound-producing member is rotated manually or by a motor (G10K 7/06 takes precedence)	11/28	. . . using reflection, e.g. parabolic reflectors [3]
7/04	. . by an electric motor	11/30	. . . using refraction, e.g. acoustic lenses [3]
7/06	. in which the sound-producing member is driven by a fluid, e.g. by a compressed gas	11/32	. . . characterised by shape of the source [3]
9/00	Devices in which sound is produced by vibrating a diaphragm or analogous element, e.g. fog horns, vehicle hooters or buzzers (loudspeakers or like acoustic electromechanical transducers H04R)	11/34	. . . using electrical steering of transducer arrays, e.g. beam steering [3]
9/02	. driven by gas, e.g. suction operated		
9/04	. . by compressed gases, e.g. compressed air		
9/06	. . produced by detonation		
9/08	. driven by water or other liquids		
9/10	. driven by mechanical means only		
9/12	. electrically operated		

11/35	. . . using mechanical steering of transducers [6]	15/04	. Sound-producing devices (G10K 15/02 takes precedence) [4]
11/36	. Devices for manipulating acoustic surface waves (electro-acoustic amplifiers H03F 13/00; networks comprising electro-acoustic elements H03H 9/00) [3]	15/06	. . . using electric discharge [4]
		15/08	. Arrangements for producing a reverberation or echo sound [5]
13/00	Cones, diaphragms, or the like, for emitting or receiving sound in general (for electromechanical transducers H04R 7/00)	15/10	. . . using time-delay networks comprising electromechanical or electro-acoustic devices [5]
		15/12	. . . using electronic time-delay networks [5]
15/00	Acoustics not otherwise provided for [4]		
15/02	. Synthesis of acoustic waves (synthesis of speech G10L 13/00) [4]		

G10L SPEECH ANALYSIS OR SYNTHESIS; SPEECH RECOGNITION; AUDIO ANALYSIS OR PROCESSING [4]

Note

This subclass does not cover:

- devices for the storage of speech or audio signals, which are covered by subclasses G11B and G11C; [2010.01]
- encoding of compressed speech signals for transmission or storage, which is covered by group H03M 7/30. [2010.01]

11/00	Determination or detection of speech or audio characteristics not restricted to a single one of groups G10L 15/00 to G10L 21/00 [7]	15/22	. Procedures used during a speech recognition process, e.g. man-machine dialog [7]
11/02	. Detection of presence or absence of speech signals [7]	15/24	. Speech recognition using non-acoustical features, e.g. position of the lips [7]
11/04	. Pitch determination of speech signals [7]	15/26	. Speech to text systems (G10L 15/08 takes precedence) [7]
11/06	. Discriminating between voiced and unvoiced parts of speech signals (G10L 11/04 takes precedence) [7]	15/28	. Constructional details of speech recognition systems [7]
13/00	Speech synthesis; Text to speech systems [7]	17/00	Speaker identification or verification [7]
13/02	. Methods for producing synthetic speech; Speech synthesisers [7]	19/00	Speech or audio signal analysis-synthesis techniques for redundancy reduction, e.g. in vocoders; Coding or decoding of speech or audio signals, e.g. for compression or expansion, source-filter models or psychoacoustic analysis [7]
13/04	. . Details of speech synthesis systems, e.g. synthesiser structure or memory management [7]	19/02	. using spectral analysis, e.g. transform vocoders or subband vocoders [7]
13/06	. Elementary speech units used in speech synthesisers; Concatenation rules [7]	19/04	. using predictive techniques [7]
13/08	. Text analysis or generation of parameters for speech synthesis out of text, e.g. grapheme to phoneme translation, prosody generation or stress or intonation determination [7]	19/06	. . Determination or coding of the spectral characteristics, e.g. of the short term prediction coefficients [7]
15/00	Speech recognition (G10L 17/00 takes precedence) [7]	19/08	. . Determination or coding of the excitation function; Determination or coding of the long-term prediction parameters [7]
15/02	. Feature extraction for speech recognition; Selection of recognition unit [7]	19/10	. . . Determination or coding of a multipulse excitation [7]
15/04	. Segmentation or word limit detection [7]	19/12	. . . Determination or coding of a code excitation, e.g. in code excited linear prediction [CELP] vocoders [7]
15/06	. Creation of reference templates; Training of speech recognition systems, e.g. adaptation to the characteristics of the speaker's voice (G10L 15/14 takes precedence) [7]	19/14	. . Details not provided for in groups G10L 19/06 to G10L 19/12, e.g. gain coding, post filtering design or vocoder structure [7]
15/08	. Speech classification or search [7]	21/00	Processing of the speech signal to produce another audible or non-audible signal, e.g. visual or tactile, in order to modify its quality or its intelligibility (G10L 19/00 takes precedence) [7]
15/10	. . using distance or distortion measures between unknown speech and reference templates [7]	21/02	. Speech enhancement, e.g. noise reduction or echo cancellation (reducing echo effects in line transmission systems H04B 3/20; echo suppression in hand-free telephones H04M 9/08) [7]
15/12	. . using dynamic programming techniques, e.g. Dynamic Time Warping [DTW] [7]		
15/14	. . using statistical models, e.g. Hidden Markov Models [HMM] (G10L 15/18 takes precedence) [7]		
15/16	. . using artificial neural networks [7]		
15/18	. . using natural language modelling [7]		
15/20	. Speech recognition techniques specially adapted for robustness in adverse environments, e.g. in noise or of stress induced speech (G10L 21/02 takes precedence) [7]		

- 21/04 . Time compression or expansion [7]
- 21/06 . Transformation of speech into a non-audible representation, e.g. speech visualisation or speech processing for tactile aids (G10L 15/26 takes precedence) [7]

23/00 Speech analysis not provided for in other groups of this subclass [2009.01]