

CPC COOPERATIVE PATENT CLASSIFICATION

A HUMAN NECESSITIES

FOODSTUFFS; TOBACCO

A22 BUTCHERING; MEAT TREATMENT; PROCESSING POULTRY OR FISH

A22C PROCESSING MEAT, POULTRY, OR FISH (preserving [A23B](#); obtaining protein compositions for foodstuffs [A23J 1/00](#); fish, meat or poultry preparations [A23L](#); disintegrating, e.g. chopping meat, [B02C 18/00](#); preparation of proteins [C07K 1/00](#))

WARNING

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

Processing meat

5/00 Apparatus for mixing meat, sausage-meat, or meat products (mixing in general [B01F](#))

7/00 Apparatus for pounding, forming, or pressing meat, sausage-meat, or meat products {(meat patty moulding devices for domestic use [A47J 43/20](#); ham boilers [A47J 27/20](#))}

7/0007 . {specially adapted for making multi-layered meat products}

7/0015 . {specially adapted for making meat-balls}

7/0023 . {Pressing means}

7/003 . . {Meat-moulds}

7/0038 . . . {Demoulding means}

7/0046 . . . {Containers in which meat is pressed and moulded}

7/0053 {Stackable containers}

7/0061 {Containers for moulding and pressing ham}

7/0069 . . . {Pressing and moulding by means of a drum}

7/0076 . . . {Devices for making meat patties}

7/0084 {comprising a reciprocating plate}

7/0092 . {with worms or other rotary mounted members ([A22C 7/0007](#) takes precedence)}

9/00 Apparatus for tenderising meat, e.g. ham {(tenderising chemically [A23L 13/00](#), [A23L 13/70](#))}

9/001 . {by injection}

9/002 . {by electric treatment}

9/004 . {by massaging}

9/005 . . {Tumblers and rotating drums for massaging meat in their interior}

9/007 . {by beating}

9/008 . {by piercing}

11/00 Sausage making {(chemical aspects [A23L 13/00](#)); **Apparatus for handling or conveying sausage products during manufacture**}

11/001 . {Machines for making skinless sausages, e.g. Frankfurters, Wieners}

11/003 . . {Removing casings from sausages during manufacture}

11/005 . . {Apparatus for binding or tying sausages or meat, e.g. salami, rollades; Filling sausage products into sleeve netting}

11/006 . {Separating linked sausages}

11/008 . {Conveying sausages in horizontal position (conveying hanging sausages [A22C 15/001](#))}

11/02 . Sausage filling or stuffing machines {(enclosing material in preformed tubular webs [B65B 9/10](#))}

11/0209 . . {Stuffing horn assembly}

11/0218 . . . {with multiple interchangeable stuffing horns, e.g. magazine arrangements}

11/0227 . . {Supplying casings to the stuffing device}

11/0236 . . . {from a storage device}

11/0245 . . {Controlling devices}

11/0254 . . . {Sizing means}

11/0263 . . . {Braking means}

11/0272 . . . {for casing depletion}

11/0281 . . {for sausages having at least one flat end}

11/029 . . {with coating or lubricating means}

11/04 . . with mechanically-operated piston moving to-and-fro

11/06 . . with piston operated by liquid or gaseous means

11/08 . . with pressing-worm or other rotary-mounted pressing-members

11/10 . Apparatus for twisting {or linking} sausages {(subdividing filled flexible tubes to form packages, involving displacement of contents [B65B 9/12](#), by applying pressure and heat successively [B65B 51/26](#))}

2011/101 . . {for pinching and twisting}

2011/102 . . . {and twisting in opposite directions}

11/104 . . {by means of shear or blade elements}

11/105 . . . {The sheer or blade elements being displaceable parallel to the sausage string in order to create a narrow point free of meat}

11/107 . . {A string passing between two rotary members comprising dividing elements cooperating with each other}

11/108 . . {with dividing elements located on the surface of a single rotary member}

11/12 . Apparatus for tying sausage skins {; Clipping sausage skins (applying clips or binding material to package folds or closures, e.g. to twisted bag necks [B65B 51/04](#), [B65B 51/08](#))}

11/122 . . {by forming knots}

11/125 . . {by clipping; Removal of clips}

- 11/127 . . {Forming a suspension loop}
- 13/00 Sausage casings** {(made of animal intestines [A22C 17/14](#))}
- 13/0003 . {Apparatus for making sausage casings, e.g. simultaneously with stuffing artificial casings (enclosing material webs being formed into tubes [in situ](#) around filling nozzles [B65B 9/20](#))}
- 13/0006 . . {Apparatus for making artificial collagen casings (chemical aspects [A22C 13/0016](#))}
- 13/0009 . {End closures therefor}
- 13/0013 . {Chemical composition of synthetic sausage casings}
- 13/0016 . . {based on proteins, e.g. collagen}
- 2013/002 . {made by extrusion}
- 2013/0023 . . {coextruded together with the food product}
- 13/0026 . {Chemical treatment of natural gut}
- 2013/003 . {with peeling aids, e.g. reducing adhesion between casing and product}
- 2013/0033 . {with at least one layer of a fat impermeable material}
- 2013/0036 . {with features allowing an easy opening and/or removal of the casing}
- 2013/004 . {with at least one layer of a gas, e.g. oxygen, water vapour, impermeable material}
- 2013/0043 . {with at least one layer of a water impermeable material}
- 2013/0046 . {suitable for impregnation with flavouring substances, e.g. caramel, liquid smoke, spices}
- 2013/005 . {monolayer casings}
- 2013/0053 . {multilayer casings}
- 2013/0056 . {nets and similar open structures to hold sausages and meat in general (making nets [D04G](#); filling sausage products into sleeve netting [A22C 11/005](#))}
- 2013/0059 . {thermoplastic casings, casings with at least one layer of thermoplastic material}
- 2013/0063 . {containing polyamide, e.g. nylon, aramide}
- 2013/0066 . {casings according to the presence or absence of seams}
- 2013/0069 . . {seamed casings, casings with at least one longitudinal seam}
- 2013/0073 . . {seamless casings made out of a continuous seamless tubular sheet}
- 2013/0076 . {treated in order to be conferred a rough appearance}
- 2013/0079 . {printable sausage casings or sausage casings showing any kind of indicia (printing textiles [D06P](#))}
- 2013/0083 . {biaxially oriented}
- 2013/0086 . {shrinkable casings}
- 2013/0089 . {smokable casings, e.g. permeable to liquid smoke or phenol}
- 2013/0093 . {textile casings, casings with at least one layer of textile material}
- 2013/0096 . {cellulosic}
- 13/02 . Shirring of sausage casings {(storing preformed tubular webs on filling nozzles [B65B 9/15](#))}
- 2013/021 . . {with pressurised air}
- 13/023 . . {Holders or packs of shirred casings}
- 2013/025 . . {Severing the shired food casing}
- 2013/026 . . {Shirring netting onto a tube}
- 2013/028 . . {Supplying and shirring casings}
- 15/00 Apparatus for hanging-up meat or sausages** {(filling and conveying sausage products during manufacture [A22C 11/00](#); transport through slaughterhouses [A22B 7/001](#); poultry shackles [A22C 21/0007](#); conveying poultry [A22C 21/0053](#))}
- 15/001 . {Specially adapted for hanging or conveying several sausages or strips of meat}
- 15/002 . . {Loops, hooks, cords for suspending single sausages; apparatus for making or conveying loops for sausages}
- 15/003 . {Hooks or the like specially adapted for meat or hams or part of carcasses (spreaders for cattle [A22B 5/06](#))}
- 15/005 . . {Hangers with more hooks penetrating the piece of meat}
- 15/006 . . {Apparatus for inserting a cord into a piece of meat}
- 15/007 . {Racks for storing or smoking suspended meat or sausages (racks for pressing meat [A22C 7/0023](#))}
- 15/008 . {Cages specially adapted for suspending hams, meat or sausages}
- 17/00 Other devices for processing meat or bones**
- 17/0006 . {Cutting or shaping meat}
- 17/0013 . . {Boards or blocks for cutting or chopping meat}
- 17/002 . . {Producing portions of meat with predetermined characteristics, e.g. weight or particular dimensions}
- 17/0026 . . {Mincing and grinding meat (mincing machines [B02C 18/30](#))}
- 17/0033 . . {Cutting slices out of a piece of meat (slicing machines [B26D 1/143](#))}
- 17/004 . {Devices for deboning meat (deboning poultry [A22C 21/0069](#); deboning operations on carcasses [A22B 5/0035](#))}
- 17/0046 . . {specially adapted for meat containing ribs}
- 17/0053 . {by injection}
- 17/006 . {Putting meat on skewers}
- 17/0066 . . {for "döner kebab", "shawarma", "gyros" or the like}
- 17/0073 . {using visual recognition, X-rays, ultrasounds, or other contactless means to determine quality or size of portioned meat}
- 17/008 . . {for measuring quality, e.g. to determine further processing}
- 17/0086 . . {Calculating cutting patterns based on visual recognition}
- 17/0093 . {Handling, transporting or packaging pieces of meat}
- 17/02 . Apparatus for holding meat or bones while cutting {(holding fish [A22C 25/06](#); holding meat for carving [A47J 43/18](#))}
- 17/04 . Bone cleaning devices
- 17/06 . Bone-shears; Bone-crushers
- 17/08 . Cleaning, e.g. washing, meat or sausages {(treating offal [C11B](#))}
- 17/10 . Marking meat or sausages {(marking animals [A01K 11/00](#); labelling [B65C](#))}
- 17/12 . Apparatus for cutting-off rind {(skinning instruments [A22B 5/16](#))}

17/14	<ul style="list-style-type: none"> Working-up animal intestines {; Treatment thereof for the manufacture of natural sausage casings (making artificial casings A22C 13/0003; chemical treatment of natural casings A22C 13/0026); Apparatus for cutting intestines; Machines for pulling intestines to pieces 	25/14	<ul style="list-style-type: none"> Beheading, eviscerating, or cleaning fish {(combined with removing fish-bone, skinning and filleting A22C 25/14; hand tools A22C 25/006)}
17/16	<ul style="list-style-type: none"> Cleaning of intestines; Machines for removing fat or slime from intestines {(cleaning the stomach of slaughtered animals A22B 5/18)} 	25/142	<ul style="list-style-type: none"> . . {Beheading fish}
18/00	Plants, factories, or the like for processing meat (for processing poultry only A22C 21/00 ; for processing fish only A22C 25/00)	25/145	<ul style="list-style-type: none"> . . {Eviscerating fish}
21/00	Processing poultry	25/147	<ul style="list-style-type: none"> . . . {Eviscerating by means of vacuum or suction devices}
21/0007	<ul style="list-style-type: none"> {Poultry shackles} 	25/16	<ul style="list-style-type: none"> Removing fish-bones; Filleting fish {(combined with beheading, eviscerating A22C 25/14; hand tools A22C 25/006)}
21/0015	<ul style="list-style-type: none"> {Killing poultry entering the processing machine (slaughtering pliers, slaughtering shears A22B 3/08)} 	25/163	<ul style="list-style-type: none"> . . {Removing the fins}
21/0023	<ul style="list-style-type: none"> . {Dividing poultry} 	25/166	<ul style="list-style-type: none"> . . {Removing loose pin bones, e.g. from fish fillets}
21/003	<ul style="list-style-type: none"> . . {Filleting poultry, i.e. extracting, cutting or shaping poultry fillets} 	25/17	<ul style="list-style-type: none"> Skinner fish
21/0038	<ul style="list-style-type: none"> . {Trussing poultry} 	25/18	<ul style="list-style-type: none"> Cutting fish into portions
21/0046	<ul style="list-style-type: none"> . {Support devices} 	25/185	<ul style="list-style-type: none"> . . {Hand tools for cutting fish}
21/0053	<ul style="list-style-type: none"> . {Transferring or conveying devices for poultry} 	25/20	<ul style="list-style-type: none"> Shredding; Cutting into cubes; Flaking
21/0061	<ul style="list-style-type: none"> . {Cleaning or disinfecting poultry} 	25/22	<ul style="list-style-type: none"> Fish-rolling apparatus
21/0069	<ul style="list-style-type: none"> . {Deboning poultry or parts of poultry} 	29/00	Processing shellfish {or bivalves}, e.g. oysters, lobsters; {Devices therefor, e.g. claw locks, claw crushers, grading devices; Processing lines}
21/0076	<ul style="list-style-type: none"> . . {Deboning poultry legs and drumsticks} 	29/005	<ul style="list-style-type: none"> . {Grading or classifying shellfish or bivalves}
21/0084	<ul style="list-style-type: none"> . . {Deboning poultry wings} 	29/02	<ul style="list-style-type: none"> Processing shrimps, lobsters or the like {; Methods or machines for the shelling of shellfish}
21/0092	<ul style="list-style-type: none"> . {Skinning poultry or parts of poultry} 	29/021	<ul style="list-style-type: none"> . . {Cleaning operations on shellfish, e.g. evisceration, brushing}
21/02	<ul style="list-style-type: none"> Plucking mechanisms for poultry 	29/022	<ul style="list-style-type: none"> . . . {Deveining shellfish}
21/022	<ul style="list-style-type: none"> . . {with fingers} 	29/023	<ul style="list-style-type: none"> . . {Conveying, feeding or aligning shellfish}
21/024	<ul style="list-style-type: none"> . . {Hand tools for plucking poultry} 	29/024	<ul style="list-style-type: none"> . . {Opening, shelling or peeling shellfish}
21/026	<ul style="list-style-type: none"> . . {with rollers} 	29/025	<ul style="list-style-type: none"> . . . {Mechanically opening and shelling crabs, lobsters or other hard-shelled crustaceans}
21/028	<ul style="list-style-type: none"> . . {with discs} 	29/026	<ul style="list-style-type: none"> . . . {Mechanically peeling and shelling shrimps, prawns or other soft-shelled crustaceans}
21/04	<ul style="list-style-type: none"> Scalding, singeing, waxing, or dewaxing poultry 	29/027	<ul style="list-style-type: none"> . . . {Hand tools for shelling shellfish}
21/06	<ul style="list-style-type: none"> Eviscerating devices for poultry 	29/028	<ul style="list-style-type: none"> . . {Beheading shellfish}
21/063	<ul style="list-style-type: none"> . . {Hand tools for eviscerating poultry} 	29/04	<ul style="list-style-type: none"> Processing bivalves, e.g. oysters (oyster knives with openers A47G 21/06)
21/066	<ul style="list-style-type: none"> . . {Extracting or removing the tendons from the legs of poultry} 	29/043	<ul style="list-style-type: none"> . . {Cleaning operations on bivalves, e.g. evisceration, brushing, separation of meat and shell material}
<u>Processing fish, including shellfish</u>		29/046	<ul style="list-style-type: none"> . . {Opening or shucking bivalves}
25/00	Processing fish {; Curing of fish; Stunning of fish by electric current; Investigating fish by optical means (slaughtering fish A22B 3/08)}		
25/003	<ul style="list-style-type: none"> . {Processing cephalopods} 		
25/006	<ul style="list-style-type: none"> . {Hand tools for processing fish} 		
25/02	<ul style="list-style-type: none"> Washing or descaling fish 		
25/025	<ul style="list-style-type: none"> . . {Devices for washing or descaling fish by hand} 		
25/04	<ul style="list-style-type: none"> Sorting fish; Separating ice from fish packed in ice {(investigating fish G01N 33/12)} 		
25/06	<ul style="list-style-type: none"> Work-tables; Fish-holding and auxiliary devices in connection with work-tables 		
25/08	<ul style="list-style-type: none"> Holding, guiding, or conveying fish before, during or after its preparation (A22C 25/06 takes precedence) {; Devices for sizing fish; Automatically adapting conveyors or processing machines to the measured size (transport in general B65G)} 		
25/10	<ul style="list-style-type: none"> Devices for threading fish on strings or the like 		
25/12	<ul style="list-style-type: none"> Arranging fish, e.g. according to the position of head and tail {(orientating articles during conveying B65G 47/24)} 		