

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](#))

Processing meat

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| <p>5/00 Apparatus for mixing meat, sausage-meat, or meat products (mixing in general B01F)</p> <p>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)}</p> <p>7/0007 . {specially adapted for making multi-layered meat products}</p> <p>7/0015 . {specially adapted for making meat-balls}</p> <p>7/0023 . {Pressing means}</p> <p>7/003 . . {Meat-moulds}</p> <p>7/0038 . . . {Demoulding means}</p> <p>7/0046 . . . {Containers in which meat is pressed and moulded}</p> <p>7/0053 {Stackable containers}</p> <p>7/0061 {Containers for moulding and pressing ham}</p> <p>7/0069 . . . {Pressing and moulding by means of a drum}</p> <p>7/0076 . . . {Devices for making meat patties}</p> <p>7/0084 {comprising a reciprocating plate}</p> <p>7/0092 . {with worms or other rotary mounted members (A22C 7/0007 takes precedence)}</p> <p>9/00 Apparatus for tenderising meat, e.g. ham {(tenderising chemically A23L 13/00, A23L 13/70)}</p> <p>9/001 . {by injection}</p> <p>9/002 . {by electric treatment}</p> <p>9/004 . {by massaging}</p> <p>9/005 . . {Tumblers and rotating drums for massaging meat in their interior}</p> <p>9/007 . {by beating}</p> <p>9/008 . {by piercing}</p> <p>11/00 Sausage making {(chemical aspects A23L 13/00); Apparatus for handling or conveying sausage products during manufacture}</p> <p>11/001 . {Machines for making skinless sausages, e.g. Frankfurters, Wieners}</p> <p>11/003 . . {Removing casings from sausages during manufacture}</p> <p>11/005 . . {Apparatus for binding or tying sausages or meat, e.g. salami, rollades; Filling sausage products into sleeve netting}</p> <p>11/006 . {Separating linked sausages}</p> <p>11/008 . {Conveying sausages in horizontal position (conveying hanging sausages A22C 15/001)}</p> | <p>11/02 . Sausage filling or stuffing machines {(enclosing material in preformed tubular webs B65B 9/10)}</p> <p>11/0209 . . {Stuffing horn assembly}</p> <p>11/0218 . . . {with multiple interchangeable stuffing horns, e.g. magazine arrangements}</p> <p>11/0227 . . {Supplying casings to the stuffing device}</p> <p>11/0236 . . . {from a storage device}</p> <p>11/0245 . . {Controlling devices}</p> <p>11/0254 . . . {Sizing means}</p> <p>11/0263 . . . {Braking means}</p> <p>11/0272 . . . {for casing depletion}</p> <p>11/0281 . . {for sausages having at least one flat end}</p> <p>11/029 . . {with coating or lubricating means}</p> <p>11/04 . . with mechanically-operated piston moving to-and-fro</p> <p>11/06 . . with piston operated by liquid or gaseous means</p> <p>11/08 . . with pressing-worm or other rotary-mounted pressing-members</p> <p>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)}</p> <p>2011/101 . . {for pinching and twisting}</p> <p>2011/102 . . . {and twisting in opposite directions}</p> <p>11/104 . . {by means of shear or blade elements}</p> <p>11/105 . . . {The sheer or blade elements being displaceable parallel to the sausage string in order to create a narrow point free of meat}</p> <p>11/107 . . {A string passing between two rotary members comprising dividing elements cooperating with each other}</p> <p>11/108 . . {with dividing elements located on the surface of a single rotary member}</p> <p>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)}</p> <p>11/122 . . {by forming knots}</p> <p>11/125 . . {by clipping; Removal of clips}</p> <p>11/127 . . {Forming a suspension loop}</p> <p>13/00 Sausage casings {(made of animal intestines A22C 17/14)}</p> <p>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)}</p> |
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- 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 . 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
- 17/16 . Cleaning of intestines; Machines for removing fat or slime from intestines {(cleaning the stomach of slaughtered animals [A22B 5/18](#))}

18/00 **Plants, factories, or the like for processing meat**
(for processing poultry only [A22C 21/00](#); for processing fish only [A22C 25/00](#))

21/00 **Processing poultry**

- 21/0007 . {Poultry shackles}
- 21/0015 . {Killing poultry entering the processing machine (slaughtering pliers, slaughtering shears [A22B 3/08](#))}
- 21/0023 . {Dividing poultry}
- 21/003 . . {Filleting poultry, i.e. extracting, cutting or shaping poultry fillets}
- 21/0038 . {Trussing poultry}
- 21/0046 . {Support devices}
- 21/0053 . {Transferring or conveying devices for poultry}
- 21/0061 . {Cleaning or disinfecting poultry}
- 21/0069 . {Deboning poultry or parts of poultry}
- 21/0076 . . {Deboning poultry legs and drumsticks}
- 21/0084 . . {Deboning poultry wings}
- 21/0092 . {Skinning poultry or parts of poultry}
- 21/02 . Plucking mechanisms for poultry
- 21/022 . . {with fingers}
- 21/024 . . {Hand tools for plucking poultry}
- 21/026 . . {with rollers}
- 21/028 . . {with discs}
- 21/04 . Scalding, singeing, waxing, or dewaxing poultry
- 21/06 . Eviscerating devices for poultry
- 21/063 . . {Hand tools for eviscerating poultry}
- 21/066 . . {Extracting or removing the tendons from the legs of poultry}

- 25/163 . . {Removing the fins}
- 25/166 . . {Removing loose pin bones, e.g. from fish fillets}
- 25/17 . Skinning fish
- 25/18 . Cutting fish into portions
- 25/185 . . {Hand tools for cutting fish}
- 25/20 . Shredding; Cutting into cubes; Flaking
- 25/22 . Fish-rolling apparatus

29/00 **Processing shellfish {or bivalves}, e.g. oysters, lobsters; {Devices therefor, e.g. claw locks, claw crushers, grading devices; Processing lines}**

- 29/005 . {Grading or classifying shellfish or bivalves}
- 29/02 . Processing shrimps, lobsters or the like {; Methods or machines for the shelling of shellfish}
- 29/021 . . {Cleaning operations on shellfish, e.g. evisceration, brushing}
- 29/022 . . . {Deveining shellfish}
- 29/023 . . {Conveying, feeding or aligning shellfish}
- 29/024 . . {Opening, shelling or peeling shellfish}
- 29/025 . . . {Mechanically opening and shelling crabs, lobsters or other hard-shelled crustaceans}
- 29/026 . . . {Mechanically peeling and shelling shrimps, prawns or other soft-shelled crustaceans}
- 29/027 . . . {Hand tools for shelling shellfish}
- 29/028 . . {Beheading shellfish}
- 29/04 . Processing bivalves, e.g. oysters ([oyster knives with openers A47G 21/06](#))
- 29/043 . . {Cleaning operations on bivalves, e.g. evisceration, brushing, separation of meat and shell material}
- 29/046 . . {Opening or shucking bivalves}

Processing fish, including shellfish

- 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 . {Processing cephalopods}
- 25/006 . {Hand tools for processing fish}
- 25/02 . Washing or descaling fish
- 25/025 . . {Devices for washing or descaling fish by hand}
- 25/04 . Sorting fish; Separating ice from fish packed in ice {([investigating fish G01N 33/12](#))}
- 25/06 . Work-tables; Fish-holding and auxiliary devices in connection with work-tables
- 25/08 . 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 . Devices for threading fish on strings or the like
- 25/12 . Arranging fish, e.g. according to the position of head and tail {([orientating articles during conveying B65G 47/24](#))}
- 25/14 . Beheading, eviscerating, or cleaning fish {([combined with removing fish-bone, skinning and filleting A22C 25/14; hand tools A22C 25/006](#))}
- 25/142 . . {Beheading fish}
- 25/145 . . {Eviscerating fish}
- 25/147 . . . {Eviscerating by means of vacuum or suction devices}
- 25/16 . Removing fish-bones; Filleting fish {([combined with beheading, eviscerating A22C 25/14; hand tools A22C 25/006](#))}