

# CPC COOPERATIVE PATENT CLASSIFICATION

**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

- 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 shirred 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}

- 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](#)})
  - 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}