

# 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><b>5/00</b> Apparatus for mixing meat, sausage-meat, or meat products (mixing in general <a href="#">B01F</a>)</p> <p><b>7/00</b> Apparatus for pounding, forming, or pressing meat, sausage-meat, or meat products {(meat patty moulding devices for domestic use <a href="#">A47J 43/20</a>; ham boilers <a href="#">A47J 27/20</a>)}</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 (<a href="#">A22C 7/0007</a> takes precedence)}</p> <p><b>9/00</b> Apparatus for tenderising meat, e.g. ham {(tenderising chemically <a href="#">A23L 13/00</a>, <a href="#">A23L 13/70</a>)}</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><b>11/00</b> Sausage making {(chemical aspects <a href="#">A23L 13/00</a>); 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 <a href="#">A22C 15/001</a>)}</p> | <p>11/02 . Sausage filling or stuffing machines {(enclosing material in preformed tubular webs <a href="#">B65B 9/10</a>)}</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 <a href="#">B65B 9/12</a>, by applying pressure and heat successively <a href="#">B65B 51/26</a>)}</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 <a href="#">B65B 51/04</a>, <a href="#">B65B 51/08</a>)}</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><b>13/00</b> Sausage casings {(made of animal intestines <a href="#">A22C 17/14</a>)}</p> <p>13/0003 . {Apparatus for making sausage casings, e.g. simultaneously with stuffing artificial casings (enclosing material webs being formed into tubes <a href="#">in situ</a> around filling nozzles <a href="#">B65B 9/20</a>)}</p> |
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13/0006	. . {Apparatus for making artificial collagen casings (chemical aspects <a href="#">A22C 13/0016</a> )}	15/002	. . {Loops, hooks, cords for suspending single sausages; apparatus for making or conveying loops for sausages}
13/0009	. {End closures therefor}	15/003	. {Hooks or the like specially adapted for meat or hams or part of carcasses (spreaders for cattle <a href="#">A22B 5/06</a> )}
13/0013	. {Chemical composition of synthetic sausage casings}	15/005	. . {Hangers with more hooks penetrating the piece of meat}
13/0016	. . {based on proteins, e.g. collagen}	15/006	. . {Apparatus for inserting a cord into a piece of meat}
2013/002	. {made by extrusion}	15/007	. {Racks for storing or smoking suspended meat or sausages (racks for pressing meat <a href="#">A22C 7/0023</a> )}
2013/0023	. . {coextruded together with the food product}	15/008	. {Cages specially adapted for suspending hams, meat or sausages}
13/0026	. {Chemical treatment of natural gut}		
2013/003	. {with peeling aids, e.g. reducing adhesion between casing and product}	<b>17/00</b>	<b>Other devices for processing meat or bones</b>
2013/0033	. {with at least one layer of a fat impermeable material}	17/0006	. {Cutting or shaping meat}
2013/0036	. {with features allowing an easy opening and/or removal of the casing}	17/0013	. . {Boards or blocks for cutting or chopping meat}
2013/004	. {with at least one layer of a gas, e.g. oxygen, water vapour, impermeable material}	17/002	. . {Producing portions of meat with predetermined characteristics, e.g. weight or particular dimensions}
2013/0043	. {with at least one layer of a water impermeable material}	17/0026	. . {Mincing and grinding meat (mincing machines <a href="#">B02C 18/30</a> )}
2013/0046	. {suitable for impregnation with flavouring substances, e.g. caramel, liquid smoke, spices}	17/0033	. . {Cutting slices out of a piece of meat (slicing machines <a href="#">B26D 1/143</a> )}
2013/005	. {monolayer casings}	17/004	. {Devices for deboning meat (deboning poultry <a href="#">A22C 21/0069</a> ; deboning operations on carcasses <a href="#">A22B 5/0035</a> )}
2013/0053	. {multilayer casings}	17/0046	. . {specially adapted for meat containing ribs}
2013/0056	. {nets and similar open structures to hold sausages and meat in general (making nets <a href="#">D04G</a> ; filling sausage products into sleeve netting <a href="#">A22C 11/005</a> )}	17/0053	. {by injection}
2013/0059	. {thermoplastic casings, casings with at least one layer of thermoplastic material}	17/006	. {Putting meat on skewers}
2013/0063	. {containing polyamide, e.g. nylon, aramide}	17/0066	. . {for "döner kebab", "shawarma", "gyros" or the like}
2013/0066	. {casings according to the presence or absence of seams}	17/0073	. {using visual recognition, X-rays, ultrasounds, or other contactless means to determine quality or size of portioned meat}
2013/0069	. . {seamed casings, casings with at least one longitudinal seam}	17/008	. . {for measuring quality, e.g. to determine further processing}
2013/0073	. . {seamless casings made out of a continuous seamless tubular sheet}	17/0086	. . {Calculating cutting patterns based on visual recognition}
2013/0076	. {treated in order to be conferred a rough appearance}	17/0093	. {Handling, transporting or packaging pieces of meat}
2013/0079	. {printable sausage casings or sausage casings showing any kind of indicia (printing textiles <a href="#">D06P</a> )}	17/02	. Apparatus for holding meat or bones while cutting {(holding fish <a href="#">A22C 25/06</a> ; holding meat for carving <a href="#">A47J 43/18</a> )}
2013/0083	. {biaxially oriented}	17/04	. Bone cleaning devices
2013/0086	. {shrinkable casings}	17/06	. Bone-shears; Bone-crushers
2013/0089	. {smokable casings, e.g. permeable to liquid smoke or phenol}	17/08	. Cleaning, e.g. washing, meat or sausages {(treating offal <a href="#">C11B</a> )}
2013/0093	. {textile casings, casings with at least one layer of textile material}	17/10	. Marking meat or sausages {(marking animals <a href="#">A01K 11/00</a> ; labelling <a href="#">B65C</a> )}
2013/0096	. {cellulosic}	17/12	. Apparatus for cutting-off rind {(skinning instruments <a href="#">A22B 5/16</a> )}
13/02	. Shirring of sausage casings {(storing preformed tubular webs on filling nozzles <a href="#">B65B 9/15</a> )}	17/14	. Working-up animal intestines (; Treatment thereof for the manufacture of natural sausage casings (making artificial casings <a href="#">A22C 13/0003</a> ; chemical treatment of natural casings <a href="#">A22C 13/0026</a> ); Apparatus for cutting intestines; Machines for pulling intestines to pieces
2013/021	. . {with pressurised air}	17/16	. Cleaning of intestines; Machines for removing fat or slime from intestines {(cleaning the stomach of slaughtered animals <a href="#">A22B 5/18</a> )}
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}		
<b>15/00</b>	<b>Apparatus for hanging-up meat or sausages {(filling and conveying sausage products during manufacture <a href="#">A22C 11/00</a>; transport through slaughterhouses <a href="#">A22B 7/001</a>; poultry shackles <a href="#">A22C 21/0007</a>; conveying poultry <a href="#">A22C 21/0053</a>)}</b>		
15/001	. {Specially adapted for hanging or conveying several sausages or strips of meat}		

**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](#))}