

# 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

- |              |  |          |  |
|--------------|--|----------|--|
|              |  | 11/006   | . {Separating linked sausages}   |
| <b>5/00</b>  | <b>Apparatus for mixing meat, sausage-meat, or meat products (mixing in general <a href="#">B01F</a>)</b>  | 11/008   | . {Conveying sausages in horizontal position (conveying hanging sausages <a href="#">A22C 15/001</a> )}  |
| <b>7/00</b>  | <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>)}</b> | 11/02    | . Sausage filling or stuffing machines {(enclosing material in preformed tubular webs <a href="#">B65B 9/10</a> )}   |
| 7/0007       | . {specially adapted for making multi-layered meat products}   | 11/0209  | . . {Stuffing horn assembly}   |
| 7/0015       | . {specially adapted for making meat-balls}  | 11/0218  | . . . {with multiple interchangeable stuffing horns, e.g. magazine arrangements}   |
| 7/0023       | . {Pressing means}   | 11/0227  | . . {Supplying casings to the stuffing device}   |
| 7/003        | . . {Meat-moulds}  | 11/0236  | . . . {from a storage device}  |
| 7/0038       | . . . {Demoulding means}   | 11/0245  | . . {Controlling devices}  |
| 7/0046       | . . . {Containers in which meat is pressed and moulded}  | 11/0254  | . . . {Sizing means}   |
| 7/0053       | . . . . {Stackable containers}   | 11/0263  | . . . {Braking means}  |
| 7/0061       | . . . . {Containers for moulding and pressing ham}   | 11/0272  | . . . {for casing depletion}   |
| 7/0069       | . . . {Pressing and moulding by means of a drum}   | 11/0281  | . . {for sausages having at least one flat end}  |
| 7/0076       | . . . {Devices for making meat patties}  | 11/029   | . . {with coating or lubricating means}  |
| 7/0084       | . . . . {comprising a reciprocating plate}   | 11/04    | . . with mechanically-operated piston moving to-and-fro  |
| 7/0092       | . {with worms or other rotary mounted members ( <a href="#">A22C 7/0007</a> takes precedence)}   | 11/06    | . . with piston operated by liquid or gaseous means  |
| <b>9/00</b>  | <b>Apparatus for tenderising meat, e.g. ham {(tenderising chemically <a href="#">A23L 13/00</a>, <a href="#">A23L 13/70</a>)}</b>  | 11/08    | . . with pressing-worm or other rotary-mounted pressing-members  |
| 9/001        | . {by injection}   | 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> )} |
| 9/002        | . {by electric treatment}  | 2011/101 | . . {for pinching and twisting}  |
| 9/004        | . {by massaging}   | 2011/102 | . . . {and twisting in opposite directions}  |
| 9/005        | . . {Tumblers and rotating drums for massaging meat in their interior}   | 11/104   | . . {by means of shear or blade elements}  |
| 9/007        | . {by beating}   | 11/105   | . . . {The shear or blade elements being displaceable parallel to the sausage string in order to create a narrow point free of meat}   |
| 9/008        | . {by piercing}  | 11/107   | . . {A string passing between two rotary members comprising dividing elements cooperating with each other}   |
| <b>11/00</b> | <b>Sausage making {(chemical aspects <a href="#">A23L 13/00</a>); Apparatus for handling or conveying sausage products during manufacture}</b>   | 11/108   | . . {with dividing elements located on the surface of a single rotary member}  |
| 11/001       | . {Machines for making skinless sausages, e.g. Frankfurters, Wieners}  | 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> )}                         |
| 11/003       | . . {Removing casings from sausages during manufacture}  | 11/122   | . . {by forming knots}   |
| 11/005       | . . {Apparatus for binding or tying sausages or meat, e.g. salami, rollades; Filling sausage products into sleeve netting}   | 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}
- 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}
- 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	<ul style="list-style-type: none"> <li>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</li> </ul>	25/14	<ul style="list-style-type: none"> <li>Beheading, eviscerating, or cleaning fish {(combined with removing fish-bone, skinning and filleting <a href="#">A22C 25/14</a>; hand tools <a href="#">A22C 25/006</a>)}</li> </ul>
17/16	<ul style="list-style-type: none"> <li>Cleaning of intestines; Machines for removing fat or slime from intestines {(cleaning the stomach of slaughtered animals <a href="#">A22B 5/18</a>)}</li> </ul>	25/142	<ul style="list-style-type: none"> <li>{Beheading fish}</li> </ul>
<b>18/00</b>	<b>Plants, factories, or the like for processing meat</b>	25/145	<ul style="list-style-type: none"> <li>{Eviscerating fish}</li> </ul>
	(for processing poultry only <a href="#">A22C 21/00</a> ; for processing fish only <a href="#">A22C 25/00</a> )	25/147	<ul style="list-style-type: none"> <li>{Eviscerating by means of vacuum or suction devices}</li> </ul>
<b>21/00</b>	<b>Processing poultry</b>	25/16	<ul style="list-style-type: none"> <li>Removing fish-bones; Filleting fish {(combined with beheading, eviscerating <a href="#">A22C 25/14</a>; hand tools <a href="#">A22C 25/006</a>)}</li> </ul>
21/0007	<ul style="list-style-type: none"> <li>{Poultry shackles}</li> </ul>	25/163	<ul style="list-style-type: none"> <li>{Removing the fins}</li> </ul>
21/0015	<ul style="list-style-type: none"> <li>{Killing poultry entering the processing machine (slaughtering pliers, slaughtering shears <a href="#">A22B 3/08</a>)}</li> </ul>	25/166	<ul style="list-style-type: none"> <li>{Removing loose pin bones, e.g. from fish fillets}</li> </ul>
21/0023	<ul style="list-style-type: none"> <li>{Dividing poultry}</li> </ul>	25/17	<ul style="list-style-type: none"> <li>Skinning fish</li> </ul>
21/003	<ul style="list-style-type: none"> <li>{Filleting poultry, i.e. extracting, cutting or shaping poultry fillets}</li> </ul>	25/18	<ul style="list-style-type: none"> <li>Cutting fish into portions</li> </ul>
21/0038	<ul style="list-style-type: none"> <li>{Trussing poultry}</li> </ul>	25/185	<ul style="list-style-type: none"> <li>{Hand tools for cutting fish}</li> </ul>
21/0046	<ul style="list-style-type: none"> <li>{Support devices}</li> </ul>	25/20	<ul style="list-style-type: none"> <li>Shredding; Cutting into cubes; Flaking</li> </ul>
21/0053	<ul style="list-style-type: none"> <li>{Transferring or conveying devices for poultry}</li> </ul>	25/22	<ul style="list-style-type: none"> <li>Fish-rolling apparatus</li> </ul>
21/0061	<ul style="list-style-type: none"> <li>{Cleaning or disinfecting poultry}</li> </ul>	<b>29/00</b>	<b>Processing shellfish {or bivalves}, e.g. oysters, lobsters; {Devices therefor, e.g. claw locks, claw crushers, grading devices; Processing lines}</b>
21/0069	<ul style="list-style-type: none"> <li>{Deboning poultry or parts of poultry}</li> </ul>	29/005	<ul style="list-style-type: none"> <li>{Grading or classifying shellfish or bivalves}</li> </ul>
21/0076	<ul style="list-style-type: none"> <li>{Deboning poultry legs and drumsticks}</li> </ul>	29/02	<ul style="list-style-type: none"> <li>Processing shrimps, lobsters or the like {; Methods or machines for the shelling of shellfish}</li> </ul>
21/0084	<ul style="list-style-type: none"> <li>{Deboning poultry wings}</li> </ul>	29/021	<ul style="list-style-type: none"> <li>{Cleaning operations on shellfish, e.g. evisceration, brushing}</li> </ul>
21/0092	<ul style="list-style-type: none"> <li>{Skinning poultry or parts of poultry}</li> </ul>	29/022	<ul style="list-style-type: none"> <li>{Deveining shellfish}</li> </ul>
21/02	<ul style="list-style-type: none"> <li>Plucking mechanisms for poultry</li> </ul>	29/023	<ul style="list-style-type: none"> <li>{Conveying, feeding or aligning shellfish}</li> </ul>
21/022	<ul style="list-style-type: none"> <li>{with fingers}</li> </ul>	29/024	<ul style="list-style-type: none"> <li>{Opening, shelling or peeling shellfish}</li> </ul>
21/024	<ul style="list-style-type: none"> <li>{Hand tools for plucking poultry}</li> </ul>	29/025	<ul style="list-style-type: none"> <li>{Mechanically opening and shelling crabs, lobsters or other hard-shelled crustaceans}</li> </ul>
21/026	<ul style="list-style-type: none"> <li>{with rollers}</li> </ul>	29/026	<ul style="list-style-type: none"> <li>{Mechanically peeling and shelling shrimps, prawns or other soft-shelled crustaceans}</li> </ul>
21/028	<ul style="list-style-type: none"> <li>{with discs}</li> </ul>	29/027	<ul style="list-style-type: none"> <li>{Hand tools for shelling shellfish}</li> </ul>
21/04	<ul style="list-style-type: none"> <li>Scalding, singeing, waxing, or dewaxing poultry</li> </ul>	29/028	<ul style="list-style-type: none"> <li>{Beheading shellfish}</li> </ul>
21/06	<ul style="list-style-type: none"> <li>Eviscerating devices for poultry</li> </ul>	29/04	<ul style="list-style-type: none"> <li>Processing bivalves, e.g. oysters (oyster knives with openers <a href="#">A47G 21/06</a>)</li> </ul>
21/063	<ul style="list-style-type: none"> <li>{Hand tools for eviscerating poultry}</li> </ul>	29/043	<ul style="list-style-type: none"> <li>{Cleaning operations on bivalves, e.g. evisceration, brushing, separation of meat and shell material}</li> </ul>
21/066	<ul style="list-style-type: none"> <li>{Extracting or removing the tendons from the legs of poultry}</li> </ul>	29/046	<ul style="list-style-type: none"> <li>{Opening or shucking bivalves}</li> </ul>
<b><u>Processing fish, including shellfish</u></b>			
<b>25/00</b>	<b>Processing fish {; Curing of fish; Stunning of fish by electric current; Investigating fish by optical means (slaughtering fish <a href="#">A22B 3/08</a>)}</b>		
25/003	<ul style="list-style-type: none"> <li>{Processing cephalopods}</li> </ul>		
25/006	<ul style="list-style-type: none"> <li>{Hand tools for processing fish}</li> </ul>		
25/02	<ul style="list-style-type: none"> <li>Washing or descaling fish</li> </ul>		
25/025	<ul style="list-style-type: none"> <li>{Devices for washing or descaling fish by hand}</li> </ul>		
25/04	<ul style="list-style-type: none"> <li>Sorting fish; Separating ice from fish packed in ice {(investigating fish <a href="#">G01N 33/12</a>)}</li> </ul>		
25/06	<ul style="list-style-type: none"> <li>Work-tables; Fish-holding and auxiliary devices in connection with work-tables</li> </ul>		
25/08	<ul style="list-style-type: none"> <li>Holding, guiding, or conveying fish before, during or after its preparation (<a href="#">A22C 25/06</a> takes precedence); Devices for sizing fish; Automatically adapting conveyors or processing machines to the measured size (transport in general <a href="#">B65G</a>)</li> </ul>		
25/10	<ul style="list-style-type: none"> <li>Devices for threading fish on strings or the like</li> </ul>		
25/12	<ul style="list-style-type: none"> <li>Arranging fish, e.g. according to the position of head and tail {(orientating articles during conveying <a href="#">B65G 47/24</a>)}</li> </ul>		