

# 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

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| <p><b>5/00</b>     <b>Apparatus for mixing meat, sausage-meat, or meat products</b> (mixing in general <a href="#">B01F</a>)</p> <p><b>7/00</b>     <b>Apparatus for pounding, forming, or pressing meat, sausage-meat, or meat products</b> {(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>     <b>Apparatus for tenderising meat, e.g. ham</b> {(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>     <b>Sausage making</b> {(chemical aspects <a href="#">A23L 13/00</a>); <b>Apparatus for handling or conveying sausage products during manufacture</b>}</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> |
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| 11/127       | . . {Forming a suspension loop}  | <b>15/00</b> | <b>Apparatus for hanging-up meat or sausages</b><br>{(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>13/00</b> | <b>Sausage casings</b> {(made of animal intestines <a href="#">A22C 17/14</a> )}   | 15/001       | . {Specially adapted for hanging or conveying several sausages or strips of meat}   |
| 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> )} | 15/002       | . . {Loops, hooks, cords for suspending single sausages; apparatus for making or conveying loops for sausages}  |
| 13/0006      | . . {Apparatus for making artificial collagen casings (chemical aspects <a href="#">A22C 13/0016</a> )}  | 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> )}   |
| 13/0009      | . {End closures therefor}  | 15/005       | . . {Hangers with more hooks penetrating the piece of meat}   |
| 13/0013      | . {Chemical composition of synthetic sausage casings}  | 15/006       | . . {Apparatus for inserting a cord into a piece of meat}   |
| 13/0016      | . . {based on proteins, e.g. collagen}   | 15/007       | . {Racks for storing or smoking suspended meat or sausages (racks for pressing meat <a href="#">A22C 7/0023</a> )}  |
| 2013/002     | . {made by extrusion}  | 15/008       | . {Cages specially adapted for suspending hams, meat or sausages}   |
| 2013/0023    | . . {coextruded together with the food product}  | <b>17/00</b> | <b>Other devices for processing meat or bones</b>   |
| 13/0026      | . {Chemical treatment of natural gut}  | 17/0006      | . {Cutting or shaping meat}   |
| 2013/003     | . {with peeling aids, e.g. reducing adhesion between casing and product}   | 17/0013      | . . {Boards or blocks for cutting or chopping meat}   |
| 2013/0033    | . {with at least one layer of a fat impermeable material}  | 17/002       | . {Producing portions of meat with predetermined characteristics, e.g. weight or particular dimensions}   |
| 2013/0036    | . {with features allowing an easy opening and/or removal of the casing}  | 17/0026      | . . {Mincing and grinding meat (mincing machines <a href="#">B02C 18/30</a> )}  |
| 2013/004     | . {with at least one layer of a gas, e.g. oxygen, water vapour, impermeable material}  | 17/0033      | . . {Cutting slices out of a piece of meat (slicing machines <a href="#">B26D 1/143</a> )}  |
| 2013/0043    | . {with at least one layer of a water impermeable material}  | 17/004       | . {Devices for deboning meat (deboning poultry <a href="#">A22C 21/0069</a> ; deboning operations on carcasses <a href="#">A22B 5/0035</a> )}   |
| 2013/0046    | . {suitable for impregnation with flavouring substances, e.g. caramel, liquid smoke, spices}   | 17/0046      | . . {specially adapted for meat containing ribs}  |
| 2013/005     | . {monolayer casings}  | 17/0053      | . {by injection}  |
| 2013/0053    | . {multilayer casings}   | 17/006       | . {Putting meat on skewers}   |
| 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> )}                                   | 17/0066      | . . {for "döner kebab", "shawarma", "gyros" or the like}  |
| 2013/0059    | . {thermoplastic casings, casings with at least one layer of thermoplastic material}   | 17/0073      | . {using visual recognition, X-rays, ultrasounds, or other contactless means to determine quality or size of portioned meat}  |
| 2013/0063    | . {containing polyamide, e.g. nylon, aramide}  | 17/008       | . . {for measuring quality, e.g. to determine further processing}   |
| 2013/0066    | . {casings according to the presence or absence of seams}  | 17/0086      | . . {Calculating cutting patterns based on visual recognition}  |
| 2013/0069    | . . {seamed casings, casings with at least one longitudinal seam}  | 17/0093      | . {Handling, transporting or packaging pieces of meat}  |
| 2013/0073    | . . {seamless casings made out of a continuous seamless tubular sheet}   | 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> )}  |
| 2013/0076    | . {treated in order to be conferred a rough appearance}  | 17/04        | . Bone cleaning devices   |
| 2013/0079    | . {printable sausage casings or sausage casings showing any kind of indicia (printing textiles <a href="#">D06P</a> )}   | 17/06        | . Bone-shears; Bone-crushers  |
| 2013/0083    | . {biaxially oriented}   | 17/08        | . Cleaning, e.g. washing, meat or sausages {(treating offal <a href="#">C11B</a> )}   |
| 2013/0086    | . {shrinkable casings}   | 17/10        | . Marking meat or sausages {(marking animals <a href="#">A01K 11/00</a> ; labelling <a href="#">B65C</a> )}   |
| 2013/0089    | . {smokable casings, e.g. permeable to liquid smoke or phenol}   | 17/12        | . Apparatus for cutting-off rind {(skinning instruments <a href="#">A22B 5/16</a> )}  |
| 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 <a href="#">B65B 9/15</a> )}   |              |   |
| 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}   |              |   |

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| 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> (for processing poultry only <a href="#">A22C 21/00</a> ; for processing fish only <a href="#">A22C 25/00</a> )  | 25/145       | <ul style="list-style-type: none"> <li>. . {Eviscerating fish}</li> </ul>   |
| <b>21/00</b>                                | <b>Processing poultry</b>  | 25/147       | <ul style="list-style-type: none"> <li>. . . {Eviscerating by means of vacuum or suction devices}</li> </ul>  |
| 21/0007                                     | <ul style="list-style-type: none"> <li>{Poultry shackles}</li> </ul>   | 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>                          |
| 21/0015                                     | <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>   | 25/163       | <ul style="list-style-type: none"> <li>. . {Removing the fins}</li> </ul>   |
| 21/0023                                     | <ul style="list-style-type: none"> <li>. {Dividing poultry}</li> </ul>   | 25/166       | <ul style="list-style-type: none"> <li>. . {Removing loose pin bones, e.g. from fish fillets}</li> </ul>  |
| 21/003                                      | <ul style="list-style-type: none"> <li>. . {Filleting poultry, i.e. extracting, cutting or shaping poultry fillets}</li> </ul>   | 25/17        | <ul style="list-style-type: none"> <li>Skinner fish</li> </ul>  |
| 21/0038                                     | <ul style="list-style-type: none"> <li>. {Trussing poultry}</li> </ul>   | 25/18        | <ul style="list-style-type: none"> <li>Cutting fish into portions</li> </ul>  |
| 21/0046                                     | <ul style="list-style-type: none"> <li>. {Support devices}</li> </ul>  | 25/185       | <ul style="list-style-type: none"> <li>. . {Hand tools for cutting fish}</li> </ul>   |
| 21/0053                                     | <ul style="list-style-type: none"> <li>. {Transferring or conveying devices for poultry}</li> </ul>  | 25/20        | <ul style="list-style-type: none"> <li>Shredding; Cutting into cubes; Flaking</li> </ul>  |
| 21/0061                                     | <ul style="list-style-type: none"> <li>. {Cleaning or disinfecting poultry}</li> </ul>   | 25/22        | <ul style="list-style-type: none"> <li>Fish-rolling apparatus</li> </ul>  |
| 21/0069                                     | <ul style="list-style-type: none"> <li>. {Deboning poultry or parts of 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>  |
| 21/0076                                     | <ul style="list-style-type: none"> <li>. . {Deboning poultry legs and drumsticks}</li> </ul>   | 29/005       | <ul style="list-style-type: none"> <li>. {Grading or classifying shellfish or bivalves}</li> </ul>  |
| 21/0084                                     | <ul style="list-style-type: none"> <li>. . {Deboning poultry wings}</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>  |
| 21/0092                                     | <ul style="list-style-type: none"> <li>. {Skinning poultry or parts of poultry}</li> </ul>   | 29/021       | <ul style="list-style-type: none"> <li>. . {Cleaning operations on shellfish, e.g. evisceration, brushing}</li> </ul>   |
| 21/02                                       | <ul style="list-style-type: none"> <li>Plucking mechanisms for poultry</li> </ul>  | 29/022       | <ul style="list-style-type: none"> <li>. . . {Deveining shellfish}</li> </ul>   |
| 21/022                                      | <ul style="list-style-type: none"> <li>. . {with fingers}</li> </ul>   | 29/023       | <ul style="list-style-type: none"> <li>. . {Conveying, feeding or aligning shellfish}</li> </ul>  |
| 21/024                                      | <ul style="list-style-type: none"> <li>. . {Hand tools for plucking poultry}</li> </ul>  | 29/024       | <ul style="list-style-type: none"> <li>. . {Opening, shelling or peeling shellfish}</li> </ul>  |
| 21/026                                      | <ul style="list-style-type: none"> <li>. . {with rollers}</li> </ul>   | 29/025       | <ul style="list-style-type: none"> <li>. . . {Mechanically opening and shelling crabs, lobsters or other hard-shelled crustaceans}</li> </ul>   |
| 21/028                                      | <ul style="list-style-type: none"> <li>. . {with discs}</li> </ul>   | 29/026       | <ul style="list-style-type: none"> <li>. . . {Mechanically peeling and shelling shrimps, prawns or other soft-shelled crustaceans}</li> </ul>   |
| 21/04                                       | <ul style="list-style-type: none"> <li>Scalding, singeing, waxing, or dewaxing poultry</li> </ul>  | 29/027       | <ul style="list-style-type: none"> <li>. . . {Hand tools for shelling shellfish}</li> </ul>   |
| 21/06                                       | <ul style="list-style-type: none"> <li>Eviscerating devices for poultry</li> </ul>   | 29/028       | <ul style="list-style-type: none"> <li>. . {Beheading shellfish}</li> </ul>   |
| 21/063                                      | <ul style="list-style-type: none"> <li>. . {Hand tools for eviscerating 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>   |
| 21/066                                      | <ul style="list-style-type: none"> <li>. . {Extracting or removing the tendons from the legs of 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>   |
| <b>Processing fish, including shellfish</b> |  | 29/046       | <ul style="list-style-type: none"> <li>. . {Opening or shucking bivalves}</li> </ul>  |
| <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>   |              |   |