

81 Conveying and packing

-
- 81a Packing processes, machines, apparatus and devices; measuring and weighing devices when combined with packing machines**
 - 81b Labelling machines**
 - 81b (IPC: B65C) Labelling or tagging machines, apparatus, or processes**
 - 81c Shipping boxes, barrels, other packing means, barrel-bottom fasteners, mailboxes**
 - 81d Garbage disposal**
 - 81e Conveying, loading; storage of specific materials not subjected to changes of condition or to rapid deterioration**
-

- 81a Packing processes, machines, apparatus and devices; measuring and weighing devices when combined with packing machines (general 42f; finished packages, packing receptacles and the like 81c)**
 - Filling and closing of packing receptacles and the like**
 - 81a-1 Filling and closing of packages and packing receptacles, particularly for granular, pulverised and fibre materials; production of packages in connection with filling, etc. (production of paper sacks and bags 54b-1, 54b-3; of boxes 54a-4 – 54a-7; measuring and weighing devices 42f-18, 81a-5/01, 81a-5/02; filling of bags, boxes, barrels 81a-3/01, 81a-3/10)
 - 81a-2/01 Pouring and packing of viscous, pasty and solidifiable materials; pouring of other liquids in connection with the packing process (filling of bottles, etc. 64b-9 – 64b-11, 64b-19); filling of food cans (closing of tin cans 7c-8); packing of soft soap, grease, cheese, etc.
 - 81a-2/10 Filling and closing of tubes (for pharmaceutical purposes 30g-6/04; tubes 81c-15)
 - 81a-3/01 Filling, packing and closing of bags, boxes and barrels (automatic bag-filling and weighing devices 81a-3/10; 42f-19; machines for sewing bags 52a-61; bag closures 81c-8)
 - 81a-3/10 Filling of valve bags
 - 81a-4 Devices for keeping bags open, bag holders
 - 81a-5/01 Measuring devices combined with packing machines (in general 42e-27; for pharmaceutical purposes 30g-6)
 - 81a-5/02 Weighing devices combined with packing machines (in general 42f-18; in combination with valve-bag filling machines 81a-3/10)
 - 81a-6/01 Details of processes, machines and devices for packing and wrapping; gears, drives and auxiliary equipment
 - 81a-6/20 Centrifugal filling devices
 - 81a-6/30 Packing tables, appliances for manual packing
 - Packing and wrapping of articles** (packing of ammunition 72d-8, 72d-11; of sugar in connection with sugar cutting and chipping machines 89g-2; of candy, etc. in connection with the moulds 53l-2; wrapping up of coins 43a-18; finished packages 81c)
 - 81a-7/01 Processes, devices and machines for packing, in general
 - 81a-7/10 Wrapping of articles of special kind and shape, except 81a-8 – 81a-15/10
 - 81a-7/20 Packing of products of various kind and shape in ready-made or prepared packages, except 81a-8 – 81a-16

- 81a-8 Wrapping, bundling of newspapers, printed matter, books, envelopes, and the like flat articles, separately or in piles
- 81a-9/01 Wrapping and packing of cigars (cigar bundling and pressing machines 79b-3)
- 81a-9/10 Wrapping and packing of cigarettes
- 81a-10 Packing and bundling of pressed briquettes, roof tiles, etc. (10b-6/01)
- 81a-11 Packing of metal foil (81c-27)
- 81a-12 Packing of needles, nails, screws and other articles
- 81a-13 Bundling of wood, steel bars, wire, etc. (coiling of wire 7b-5; strapping of bales and packages 81c-18, 81c-19; binding, baling and pressing of straw, hay, etc. 45e-1, 45e-23 - 45e-28, 45e-1/00, 45e-13/00 - 45e-15/18; 58b-14)
- 81a-14 Arranging of pieces for packing in definite number, position, etc. (sorting machines 42b-26; sorting of metal workpieces 49c-29)
- 81a-15/01 Packing of breakable or sensitive articles, such as bottles, eggs, fruits, vegetables, etc. (81c-24 - 81c-26/01)
- 81a-15/10 Manufacture of packaging covers for breakable articles (sewing of straw containers 52a-26; manufacture of packing material from paper, cardboard, etc. 54d-9)
- 81a-16 Packing of disk-shaped, globular and other articles, e.g. tablets, buttons, in ready-made or prepared packages, e.g. in boxes, tubes, glass receptacles, on cards (wrapping 81a-7/10; arranging 81a-14)

81b Labelling machines

- 81b-1 Labelling machines for bottles, and cans, processes devices and machines for affixing of seals on bottle closures (54g-17; 64a-77); wrapping of head and neck of bottles with tin foil (64b-23)
- 81b-1/50 Cigar labelling machines
- 81b-2 Labelling machines for boxes, parcels, etc.
- 81b-3 Label containers, label feeding devices, gumming and moistening devices for labelling machines (sheet feeding devices 15e-1, 15e-5 - 15e-11; application of adhesives 54d-6)
- 81b-4 Details of labelling machines
- 81b-5 Manual labelling appliances (11c-5; 54d-6; 55f-1; 70d-3 - 70d-7)

81b (IPC: B65C) Labelling or tagging machines, apparatus, or processes (nailing or stapling machines 38d-5; 11a; applying labels for packaging purposes 81a; labels, name-plates 54g)

Note:

The term "labels" in this subclass embraces also stamps or the like

Processes; Kinds or types of machines

- 81b-1/00 Labelling flat essentially-rigid surfaces** (labelling of fabrics 81b-5/00)
- 81b-1/02 . Affixing labels to one flat surface of articles, e.g. of packages, of flat bands
- 81b-1/04 . Affixing labels, e.g. wrap-around labels, to two or more flat surfaces of a polyhedral article
- 81b-1/06 . . of a box, e.g. a cigarette box
- 81b-3/00 Labelling other than flat surfaces** (of fabrics 81b-5/00)
- 81b-3/02 . Affixing labels to elongated objects, e.g. wires, cables, bars, tubes
- 81b-3/04 . . Applying bands or labels to cigars or cigarettes
- 81b-3/06 . Affixing labels to short rigid containers
- 81b-3/08 . . to container bodies
- 81b-3/10 . . . the container being positioned for labelling with its centre-line horizontal
- 81b-3/12 by rolling the labels onto cylindrical containers, e.g. bottles
- 81b-3/14 . . . the container being positioned for labelling with its centre-line vertical
- 81b-3/16 by rolling the labels onto cylindrical containers, e.g. bottles
- 81b-3/18 . . to container necks
- 81b-3/20 . . to bottle closures (applying closures or capsules to bottles 64b-19 - 64b-24)
- 81b-3/22 . . . Affixing metal foil coverings

81b-3/24	. . . Affixing labels indicating original state of bottle snap or screw closure
81b-3/26	. Affixing labels to non-rigid containers, e.g. bottles made of polyethylene, boxes to be inflated by internal air pressure prior to labelling
81b-5/00	Labelling fabrics or comparable materials or articles with deformable surface, e.g. paper, fabric rolls, stockings, shoes (affixing labels to non-rigid containers 81b-3/26; by sewing 52a)
81b-5/02	. using adhesives
81b-5/04	. . thermo-activatable adhesives
81b-5/06	. using staples (stapling tools 87a; stapling together paper sheets 11a)
81b-7/00	Affixing tags
81b-9/00	Details of labelling machines or apparatus
81b-9/02	. Devices for moving articles, e.g. containers, past labelling station
81b-9/04	. . having means for rotating the articles
81b-9/06	. Devices for presenting articles in predetermined attitude or position at labelling station
81b-9/08	. Label feeding
81b-9/10	. . Label magazines
81b-9/12	. . Removing separate labels from stacks (for printing 15d)
81b-9/14	. . . by vacuum
81b-9/16	. . . by wetting devices
81b-9/18	. . Label feeding from strips, e.g. from rolls
81b-9/20	. Gluing the labels or articles
81b-9/22	. . by wetting
81b-9/24	. . by heat
81b-9/26	. Devices for applying labels
81b-9/28	. . Air-blast devices
81b-9/30	. . Rollers
81b-9/32	. . . Co-operating rollers between which articles and labels are fed
81b-9/34	. . Flexible bands
81b-9/36	. . Wipers; Pressers
81b-9/38	. Label cooling or drying
81b-9/40	. Controls; Safety devices
81b-9/42	. . Label feed control
81b-9/44	. . . by special means responsive to marks on labels or articles (feed control in wrapping 81a)
81b-9/46	. Applying date marks, code marks, or the like, to the label during labelling (manually-controlled or operable apparatus having printing equipment 81b-11/02)
81b-11/00	Manually-controlled or manually-operable label dispensers, e.g. modified for the application of labels to articles (dispensers for wrapping paper in shops or offices 34l; for paper napkins, for toilet paper 34k; for playing cards 77d; dispensers for tickets 43a; coin-operated dispensers for stamps 43b)
81b-11/02	. having printing equipment
81b-11/04	. having means for moistening the labels
81b-11/06	. having means for heating thermo-activatable labels
81c	Shipping boxes, barrels, other packing means, barrel-bottom fasteners, mailboxes
	Boxes and accessories (manufacturing of boxes from metal 7c-24, 7c-47; from wood 38d-2)
81c-1	Boxes, in general (tool boxes 87d-3)
81c-2	Corner joints and safety fixtures for boxes
81c-3	Box closures (closures for trunks, travelling baskets, etc. 33b-13/01)
81c-4	Collapsible boxes (81c-1)

Barrels and accessories (manufacture of barrels from metal 7c-15, 7c-24; from wood 38f-2 – 38f-6; from paper 54e, 54f-2/01)

- 81c-5 Shipping barrels and buckets and their closures in general, also barrel heads, gauging marks on barrels, barrel linings and bung ring fastening (metal barrels 81c-6); fermenting vats 6b-17; storage barrels 6f-3, 6f-5; barrel door closures 64a-50; barrel filling and closing devices 64b-12 – 64b-19; bung closures 64c-21 – 64c-26; tank vehicles 20c-9, 20c-10, 63a-37)
- 81c-6 Metal barrels
- 81c-7 Barrel bottom fasteners

Bags and sacks

- 81c-8 Bags and bag closings (paper bags 54b-4; filling and closing of bags 81a-3; sewing 52a-58; 52a-61/01 – 52a-61/03; bag holders 81a-4; sleeping bags 3b-6; travelling bags, etc. 33b-2/01; knapsacks, rucksacks 33d-2/01 – 33d-2/02; for liquids 64c-5)
- 81c-9 Mail bag closures

Baskets, containers, boxes, etc.

- 81c-10 Baskets, in general (as hand-carried or travelling equipment 33b-2, 33b-9, 33b-11; delivery baskets 34l-21/09; poultry shipping baskets 45h-17/07 – 45h-17/09, 45h-31/06 – 45h-31/08)
- 81c-11 Stacking, adjustable and telescopically extensible containers (hand and travelling containers 33b-8)
- 81c-12 Shipping boxes and cans, canisters, shipping-containers, especially for milk, etc. of metal (for kitchen and household use 34l-20; dairy apparatus 45g-1, 45g-9/00; lubricating cans 47e-34; special closing and opening devices 64a-19, 64a-48, 64a-64; sheet metal boxes 81c-1, 81c-4; containers for oil, gasoline, etc. combined with vehicle 63c-78; carbide containers 26b-42; containers for pharmaceutical products 30g-6; hand-carried and travelling equipment 33b-10, 33b-11; 33c-12, 33c-13, 33c-19 – 33c-22; containers for shoe cream, etc. 34c-25; paint containers 75c-15)
- 81c-13 Cardboard boxes (manufacture 54a); cardboard boxes with tear-up devices
- 81c-14 Collapsible boxes (33b-8)
- 81c-15 Tubes (81a-2; 33c-19)
- 81c-16 Seals for securing of packages, etc. (7c-10; 7c-47; 31c-25; 64a-77; 87b-5)
- 81c-17 Fastening of address tags, etc. on packages (pattern fasteners, pattern cards 8f-13/01, 8f-13/02; tags 54b-8; for advertising and exhibiting purposes 54g-17; address holders on trunks and bags 33b-15/08)

Strapping for bales, boxes, etc.

- 81c-18 Strapping for bales, boxes, parcels, etc. (for hand and travelling bags 33b-13/01; closing and strapping devices fastened to box 81c-3)
- 81c-19 Tools and machines for manufacturing and loosening of strappings (sealing pliers 87b-5; wire tensioners 37d-36/03; 47d-12; 87a-21; box openers 87a-22; devices for bundling wood, steel bars, wire 81a-13)

Packages

- 81c-20 Packages for fruits, flowers and eggs
- 81c-21 Packages for cigarettes, cigars and tobacco (tobacco cartridges 79b-27; packages for pocket and household use 44b-25 – 44b-30; packing machines, etc. 81a-9/01 – 81a-9/10)
- 81c-22 Packages for food and delicacies
- 81c-23 Packages for bicycles and automobiles
- 81c-24 Packages for glass flasks
- 81c-25 Packages, shipping boxes, elastically suspended containers for bottles and other breakable items (81c-26/01)
- 81c-26/01 Packaging for materials for bottles and other breakable articles (81a-15/01, 81c-25; manufacturing of corrugated cardboard, etc. 54d-9)

- 81c-26/02 Packaging materials, unspecified shape or packaged object (81a-1 – 81a-2/10; 81a-7/01 – 81a-7/20; 81a-9/01 – 81a-9/10; 81c-21; 81c-22; 81c-26/01; 81c-27; manufacture from paper, etc. 54d-9; from plastics 39)
- 81c-27 Packages for various articles, e.g. incandescent mantles, chemicals, metal foil (packing of metal foil 81a-11), liquefied gases (pressure vessel for gases 17g-3; cans, etc. for carbide 26b-42; packages for medical instruments 30a-19/02; for ammunition 72d-8, 72d-11); tube and hose wheeled carriers, hose reels (for fire hoses 61a-15/03)
- Mailboxes** (household mailboxes, also for several recipients 34l-25)
- 81c-28 Mailboxes, in general, post-office boxes (81c-29; 81c-30)
- 81c-29 Mailboxes with simultaneous closing of box and letter bag
- 81c-30 Mailboxes with devices for preventing theft (with alarm devices 74a-24; for household mailboxes 34l-25/01)
- 81d Garbage disposal** (garbage disposal chutes in building 37f; garbage incineration 24d)
- 81d-1 Garbage vehicles
- 81d-2 Garbage vehicles with positively coupled vehicle-and body-connected pushers
- 81d-3 Garbage receptacles and cans
- 81d-4 Disinfecting devices for garbage vehicles and receptacles
- 81d-5 Miscellaneous devices for garbage disposal
- 81e Conveying, loading; storage of specific materials not subjected to changes of condition or to rapid deterioration** (5d-11; 10a-17; 10c-2; 24l-3; 26e; 66a-6; 84d; 89a-3)
- 81e-1 Conveyor belts (5d-11; 84d-5; 84d-7/00)
- 81e-2 Structure of flexible conveyor belts
- 81e-3 Steel conveyor belts
- 81e-4 Rope conveyor belts (10c-2; 73-5)
- 81e-5 Sequence arrangement of several conveyor belts for continuous conveying
- 81e-6 Corner guides for conveyor belts
- 81e-7 Extensible conveyor belts
- 81e-8 Parallel and superposed arrangement of several conveyor belts for receiving materials
- 81e-9 Drives for conveyor belts
- 81e-10 Supporting and guide rollers
- 81e-11 Feeding of material to conveyor belts
- 81e-12 Delivering material, dumping vehicles
- 81e-13 Cleaning devices
- 81e-14 Plate belt runs
- 81e-15 Link plate conveyor belts
- 81e-16 Link conveyor belts with longitudinal bars or with grates
- 81e-17 Wire spiral or wire mesh link conveyor belts
- 81e-18 Linked conveyor belts with closely spaced transverse bars
- 81e-19 Through-shaped conveyor
- 81e-20 Link-belt conveyor for peat sod (10c-2)
- 81e-21 Tilting of conveying elements for delivery of conveyed materials
- 81e-22 Scraper conveyors and traction conveyors (5d-14)
- 81e-23 Horizontal-feed worm conveyor
- 81e-24 Vertical-feed worm elevators
- Bucket conveyors [elevators] for feeding and delivering**
- 81e-25 Swing-bucket conveyors
- 81e-26 Drives for swing bucket conveyors
- 81e-27 Feeding devices for swing bucket conveyors

- 81e-28 Tilting devices for buckets
- 81e-29 Bucket elevators, general
- 81e-30 Extensible bucket elevators
- 81e-31 Superposed bucket elevators successively feeding one another
- 81e-32 Mobile bucket elevators
- 81e-33 Drives for bucket elevators
- 81e-34 Tensioning devices for bucket elevators
- 81e-35 Catching devices for bucket elevators
- 81e-36 Feeding devices for bucket elevators
- 81e-37 Intermediate picking-up devices for bucket elevators
- 81e-38 Emptying devices for bucket elevators
- 81e-39 Structure of bucket elevators and their components
- 81e-40 Bucket fastening
- 81e-41 Lubricating devices and arrangement of rollers
- 81e-42 Chain elevators (35a-8; 37e-13/01 – 37e-13/06; 72d-21/01 – 72d-21/03)
- 81e-43 Fastening and guiding of buckets of chain elevators (35a-8)
- 81e-44 Loading and unloading of buckets of chain elevators (35a-8)

Chutes and troughs

- 81e-45 Chutes (84d-5/01 – 84d-5/04; 84d-7/00)
- 81e-46 Extensible chutes
- 81e-47 Swing chutes for conveying to different containers or outlets
- 81e-48 Chute tubes with fixed worms
- 81e-49 Grain gravity chutes
- 81e-50 Bag chutes
- 81e-51 Chute troughs, shaking chutes (1a-23; 5d-11; 50d-3/01)
- 81e-52 Reciprocating-motion drives of shaking chutes (pneumatic motors, general, 46d-4, 46d-5/01 – 46d-5/08; control mechanisms for motors 14d)
- 81e-53 Revolving drives, crank drives for shaking chutes
- 81e-54 Common motor drive for several chutes
- 81e-55 Feeding devices for shaking chutes
- 81e-56 Delivery devices for shaking chutes
- 81e-57 Connection of several sections of shaking chutes
- 81e-58 Roller bearings for shaking chutes
- 81e-59 Conveyor troughs with plates fixed to reciprocating bars, etc.

Pneumatic and hydraulic conveying (5d-15; 20c-9; 24l-3; 38e-12; 45c-37/05; 45e-24; 79a-1; 81e-148/01 – 81e-156)

- 81e-60 Pneumatic conveyors for loose materials (20c-9)
- 81e-61 Pneumatic conveyors for coal dust (20c-9; 24l-3)
- 81e-62 Compressed-air conveyors
- 81e-63 Feeding of loose material to be pneumatically conveyed
- 81e-64 Delivery of pneumatically conveyed loose materials
- 81e-65 Suction-type pneumatic conveyors
- 81e-66 Nozzles for suction-type pneumatic conveyors
- 81e-67 Collecting bins for pneumatically conveyed loose materials (12e-2; 50e-2)
- 81e-68 Delivery drums for collecting receptacles
- 81e-69 Delivery gates for collecting receptacles
- 81e-70 Moisture elimination tanks for collecting receptacles (12e; 34c-5; 50e; 36d)
- 81e-71 Conveyor systems operated by suction and compressed air
- 81e-72 Conveyor systems for sludge, etc. operated by static air pressure
- 81e-73 Rigid conveyor tubes for pneumatic or hydraulic conveying
- 81e-74 Flexible conveyor tubes for pneumatic or hydraulic conveying

- 81e-75 Conveyor tube switches for pneumatic or hydraulic conveyors
- 81e-76 Conveying by running water flow (5d-15; 24g-5)
- 81e-77 Flushing discharge devices for vehicles

Other continuously acting conveying devices

- 81e-78 Drums and centrifugal blowers for conveying loose goods
- 81e-79 Conveying by means of reciprocating rods and pistons
- 81e-80 Roller tables for general purposes (7a-24)
- 81e-81 Roller-ways
- 81e-82/01 Conveying systems for plant assembly lines
- 81e-82/02 Conveying devices for feeding machine tools and through processing apparatus
- 81e-83/01 Endless conveyor ways for goods, parcels, etc.
- 81e-83/02 Miscellaneous apparatus for conveying and distributing layout boards for conveyor systems (74b-12; 21c-47; 21c-62)

Material-handling scoops and bucket

- 81e-84 Self-loading scoops
- 81e-85 Material-handling scoops mounted on the rigid jib of a travelling or rotary crane
- 81e-86 Rope suspension or traction handling scoops, e.g. scrapers (5b-39; 5d-11; 5d-14; 84d-1; 84d-3/00)
- 81e-87 Material-handling scoops luffing up and down
- 81e-88 Rotary material-handling scoops or drums
- 81e-89/01 Loading buckets or skips in general, filling devices for loading buckets (20c-13; 35a-9/03)
- 81e-89/02 Loading buckets or skips, bottom discharge
- 81e-90 Loading buckets or skips, tilting discharge
- 81e-91 Tipping buckets (20c-13)

Tipping and tilting devices (5d-14)

- 81e-92 Rotary tippers
- 81e-93 Rotary tippers with multiple pick-up sections for the cars
- 81e-94 Car engaged and disengaged tipper and car arrester
- 81e-95 Devices for feeding cars onto tipper
- 81e-96 Stationary car tipping devices
- 81e-97 Mobile car and receptacle tipping devices (20c-15; 63a-34; 63c-39; 81e-90; 81e-120)
- 81e-98 Mobile tippers, pivoted about vertical axis
- 81e-99 Car tippers tiltable to both sides
- 81e-100 Hoist tippers
- 81e-101 Luffing jib cranes
- 81e-102 Car tilted on travelling along a looped tilting track
- 81e-103 Front and lateral tilting devices for conveyor and mining cars (5d-13)

Loading and unloading devices for storehouses, ships, cars, etc.

- 81e-104 Car unloading devices, except 81e-92 – 81e-103 (20c-13; 63a-35)
- 81e-105 Ship loading and unloading devices (19a-23/01; 19a-25/00; 65a2-26 – 65a2-33; 81e-118)
- 81e-106 Loading and unloading devices for store rooms, underground storage bins (19a-23/01; 19a-25/00; 81e-123/01)
- 81e-107 Miscellaneous material, hoists for stacking devices, inclined and vertical (35a-1; 35d-1), wedges for immobilising vehicles
- 81e-108 Apparatus for stacking loading cars with articles or bulk goods by devices not otherwise provided for (63a-35; 63b-4; 63c-39); separating devices for cars and waggons (20a-14; 35a-9/12; 81e-95)
- 81e-109 Coke handling apparatus (10a-17)
- 81e-110 Coaling devices for locomotives

- 81e-111 Automatic charging devices for moving cars
- 81e-112 Devices for loading cars with endless conveyors (5d-11; 5d-12)
- 81e-113 Mobile elevators pivoted about a horizontal axis stationary elevators (45e-29)
- 81e-114 Material pickup and delivery to endless conveyors by bucket elevators or scrapers, loading machines (5d-12)
- 81e-115 Material pickup and delivery to conveyors by means of lateral scrapers, loading machines (5d-12)
- 81e-116 Other pick-up devices for bulk goods to be delivered to a conveyor, loading machines (5d-12)
- 81e-117 Devices for feeding and uniformly distributing stored goods in covered freight cars (19a-23/01; 19a-25/00)
- 81e-118 Devices for feeding and uniformly distributing stored goods in store rooms and ships (19a-23/01; 19a-25/00; 65a2-26 – 65a2-33)
- 81e-119 Miscellaneous devices for conveying or stowing bulk goods (lift trucks 63b-4; railroad cranes and auxiliary cars 20c-8); stacking platforms; blocking wedges for vehicles (20g-5); auxiliary aerial cable ways (20a-12); hay binders
- 81e-120 Conveying of goods in containers to be rolled or lifted off vehicles; container transport (20c-4; 63c-39)
- 81e-121 Loading ramps (20c-38)
- 81e-122 Rolling and sliding devices for heavy goods (for trunks, etc. 33b-16)
- 81e-123/01 Handling bridges in connection with horizontal conveying devices on crane (35b-1; 81e-106)
- 81e-123/02 Concrete conveyors, e.g. on scaffolds, cable cranes (35a-4; 35b-1/40; 37e-13; 84a-4; 84a-7/00)
- 81e-124 Crane, handling bridge or conveyor systems in connection with discharging devices (35b-1; 81e-96)
- 81e-125 Pile depositing or removing devices (19a)
- 81e-126 Rubble dumpers (84d-5; 84d-9/00)
- 81e-127 Rubble conveying bridges (5b-39; 5b-41; 5d-13; 35b-1; 35b-7; 84d-5; 84d-7/00; 84d-9/00)
- 81e-128 Levelling devices for dumped heaps or piles (19a-33/23; 19b-6; 19b-5/00; 19c-19/00; 19e-1)
- 81e-129 Piling of lumber, boards, rolled stock, etc. storage devices
- 81e-130 Bale hooks, etc. (35b-6)
- 81e-131 Miscellaneous carrying devices for bricks, mortar and other articles (32a-21; 32a-13/18; 35b-6)
- 81e-132 Devices for tilting, emptying and conveying barrels, etc. (64c-46)
- 81e-133 Various devices for silos (37f-2)
- 81e-134 Closures for silo outlets
- 81e-135 Silo outlets with multiple closures
- 81e-136 Emptying devices on silos, bins or containers
- 81e-137 Equipment for aeration of grain in silos or other storage rooms by means of fixed built-in apparatus or additional devices

Prevention of spontaneous inflammation and explosions in storage rooms, for barrels, etc.

- 81e-138 Devices for preventing spontaneous inflammation of coal, cotton, etc.
- 81e-139 Devices for prevention of explosions for containers filled with inflammable liquids (4a-2; 34l-20; 64c-30; 64c-44)
- 81e-140 Unloading devices for inflammable liquids by means of hydraulic pressure
- 81e-141 Unloading devices for inflammable liquids by means of gas pressure
- 81e-142 Unloading devices for inflammable liquids by means of pumps
- 81e-143 Structure of storage and shipping containers for inflammable liquids
- 81e-144 Protective gases for inflammable liquids, and preparation of such gases

Warehouse railroads, pneumatic dispatch systems, etc. (20k-1)

- 81e-145 Warehouse railroads (19a-23/01; 19a-25/00)
- 81e-146 Rope dispatch systems
- 81e-147 Endless conveyors (43a-42)
- 81e-148/01 Pneumatic dispatch systems and devices, general
- 81e-148/02 Pneumatic dispatch systems controlled by special switching apparatus from sending end
- 81e-148/03 Pneumatic dispatch systems controlled by special characteristics of carriers
- 81e-149 Pneumatic dispatch systems, reversible operation
- 81e-150 Auxiliary devices for the working air, e.g. for generation, control, dehumidification
- 81e-151 Pneumatic dispatch carriers
- 81e-152 Card pneumatic dispatch systems
- 81e-153 Switches in pneumatic dispatch systems (81e-75)
- 81e-154 Dispatching stations for pneumatic dispatch systems
- 81e-155 Reception stations for pneumatic dispatch systems
- 81e-156 Signalling devices for pneumatic dispatch systems
- 81e-157 Rapid mail conveying systems with electrically or otherwise driven cars (20k-1)
- 81e-158 Miscellaneous devices for conveying mail in buildings (35a-5)