

DEPARTMENT OF COMMERCE

CIRCULAR

OF THE

BUREAU OF STANDARDS

S. W. STRATTON, DIRECTOR

No. 77

TABLE OF UNIT DISPLACEMENT OF COMMODITIES

[1st Edition]

Issued March 10, 1919



PRICE, 10 CENTS

Sold only by the Superintendent of Documents, Government Printing Office,
Washington, D. C.

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With the large demand made upon the transportation and shipping facilities of this country in the recent times, the need for such a classification as is given in this Circular became urgent as a basis for making estimates as to the most efficient utilization of the existing facilities. Requests on this Bureau to supply these kinds of data were made by military agencies and others, and accordingly their compilation was undertaken.

The Bureau of Standards accepts no responsibility regarding the accuracy of the data. They were compiled from information furnished by leading shippers who appreciate the fact that there is considerable variation in the densities of commodities and their manner of preparation for shipment. The Bureau has not attempted to check the information in many cases, owing to the great amount of labor involved and the extreme pressure of other necessary work.

For the purpose of improving the accuracy of the data in subsequent editions of this Circular, the Bureau will be pleased to receive from qualified sources information wherein they are now incomplete or incorrect, and also information relating to commodities not included.

Table of Unit Displacement of Commodities

Blanks in the following pages indicate that data are not available. Corrections and additional data addressed to Division II, Bureau of Standards, Washington, D. C., will be appreciated.

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Abrasit.....	90	22	24	Wooden casks, 32 inches high, 19 inches diameter.
Abrasive paper:				
Alundum cloth.....	58	35	39	Rolls, 28 by 9 inches; 50 pounds per 480 sheets; 60 pounds per 50-yard roll.
Alundum paper.....	72	28	31	Rolls, 25 by 7 inches; 45 pounds per 480 sheets; 35 pounds per 50-yard roll.
Carborundum paper.....	65	31	35	Rolls, bundles, boxes.
Corundum paper.....	65	31	35	Do.
Emery cloth.....	35	57	64	Rolls, 19 by 9 inches; 25 pounds per 50-yard roll; 32 pounds per 480 sheets.
Emery paper.....	45	44	50	Rolls, 25 by 7 inches; 25 pounds per 50-yard roll; 20 pounds per 480 sheets.
Flint paper.....	65	31	35	Rolls, bundles, boxes.
Sandpaper.....	65	31	35	Do.
Absorbent cotton.....	8-9	216-250	242-280	Bales.
Accroides gum.....				Bags and cases, 100 to 200 pounds.
Acetanilid.....	23	87	97	Sugar barrels; containers, 25-50 pounds.
Acetic acid, commercial (70 per cent acid).	67	30	33	12-gallon carboys.
Pure.....	56	36	40	Do.
Acid phosphate. See Phosphate acid.				
Adding machines. See Computing machines.				
Adhesive paste. See Paste.				
Adzes.....				1 dozen to a case, 40 to 50 pounds.
Air humidifiers, baker's.....	56	35	40	Crates, 17 by 64 by 21 inches.
Alcohol.....	58	35	39	Barrels.
Algorabilla. See Tanning extract.			28-32	50-gallon barrels.
Alizarine colors.....	71-79	25-28	35	Kegs, barrels.
Alizarine dyes.....	65	31	25	Cans, boxes, sacks, 120 pounds.
Allspice.....	18	111		
Almonds, shelled, unsalted, and unsweetened.	35	57	64	
Unshelled.....	17	116	130	
Aloes, gum.....				Cases; kegs; barrels, 150-500 pounds.
Alumina ore. See Bauxite.				
Aluminum:				
Acetate of.....	70	31	34	Barrels, kegs.
Bisulphite.....				Hardwood barrels, 550-570 pounds.
Bronze powder.....	35	57	64	Cans in boxes.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Aluminum—Continued.	Pounds	Cubic feet	Cubic feet	
Carbide.....	70	29	32	Casks, 42 inches long, 24 inches, diameter.
Chloride.....	81	25	28	Carboys.
Coiled.....	32	62	70	
Dross.....	66	30	34	
Foil.....	70	29	32	
Ingots.....				Each, weight 25 pounds or over.
Interleaved.....	60	33	37	
Mats or matting.....	167	12	14	Each, 9-13 inches wide.
Phosphate. See Wavelitte ore.				
Plain.....	70	29	32	
Sulphate.....				Barrels, 424 pounds; bags, 202 pounds.
Wire. See Wire.				
Alundum cloth and paper. See Abrasive paper.				
Alundum refuse.....	120	17	19	
Amber.....				Cases, 150-250 pounds.
Ammonia, anhydrous.....	60	33	37	Iron cylinders.
Phosphate.....	60	33	37	Barrels, kegs.
Ammoniacal liquor.....	67	30	33	Tank cars.
Ammonium, bromide.....	77	26	29	
Nitrate.....	39	51	57	Boxes, 20 by 13½ by 11½ inches.
Aniline:				
Dyes.....	79	29	32	Tins, cans, kegs, barrels.
Oil.....	64	32	35	Iron drums, 1100-1600 dpounds.
Salts.....	45	45	50	Wooden casks.
Animal charcoal. See Bone- black.				
Animi.....				Cases, 150-250 pounds.
Annato seed.....				Bags, 190 pounds net.
Anodes. See Nickel anodes.				
Antifreezing compound.....	41	49	55	Cans.
Antimony:				
Metal.....	232	8.6	9.7	Boxes, 16½ by 10½ by 11 inches.
Oxide.....	40- 65	30- 50	35- 56	Barrels; kegs; casks.
Regulus:				
Chinese.....	160	12	14	Cases of slabs of 40 pounds each; cases, weight 250 pounds.
English.....				Cases of cakes 10 by 10 by 2 inches; cases, weight 700 pounds.
Hungarian and other European.				Casks, 300-1200 pounds.
Anvil tools. See Machine shop equipment.				
Apricot kernels.....	42	48	53	Sacks.
Aqua ammonia. See Ammonia.				
Arabic gum. See also Gum arabic				Bags; cases; barrels 350 pounds.
Arch supports and arch-support insoles.	16	125	140	1 dozen in carton; 1 gross in box 23.5 by 18½ by 8 inches.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Areca nuts. See Betel nuts.				
Army kitchen equipment:	Pounds	Cubic feet	Cubic feet	
Army kitchens.....				50 by 50 inches, weight 2,120 pounds; weight of kitchen and supplies, 2,920 pounds.
Army range No. 1.....	26	76	85	Crates.
Army range No. 2.....	32	63	70	Do.
McClary's field kitchen, used by Canadian troops.	7	286	320	
Pintsch portable gas cooker.				Trunk furnished by Commissary Department, inside dimensions 25½ by 17½ by 17½ inches.
Arrowroot.....				Flour barrels.
Artgum.....	60	33	37	Strong rectangular boxes.
Artificial leather. See Leather.				
Asafetida gum.....	41	49	55	Cases, 50-450 pounds.
Asbestos.....	35	57	64	Rolls.
Building, felt paper.....	49	41	45	Rolls, wrapped with burlap on the ends.
Not bituminized.....	85	24	26	Rolls.
Cloth.....	37	55	61	Cases.
Crude.....	50	40	45	Bags, 102 pounds.
Doors.....	55	36	41	
Fiber.....	22- 33	60- 90	67-100	Bags.
Filler blocks for acetylene- gas cylinders.	18	111	125	
Gaskets. See Gaskets.				
Lumber.....	125-130	15- 16	17- 18	Boxes; crates, 350 pounds.
Millboard.....	45- 85	24- 45	25- 50	Cases; crates.
Ordinary pipe or boiler cov- ering.	35	57	64	Crates, 25.5 by 25.5 by 37.5-44.5 inches.
Packing. See Packing.				
Roofing.....	50- 55	36- 40	40- 45	Crates; rolls wrapped and burlap ends 33 by 14 inches.
Corrugated.....	22-100	20- 91	22-102	Crates.
Refuse.....	42- 56	35- 48	40- 54	
Sand.....	56- 65	31- 36	34- 40	
Scrap.....	24- 85	24- 83	26- 94	Bags, 100-125 pounds; bales, 458 pounds.
Table covers or pads.....	30- 45	44- 67	50- 75	Heavy pasteboard boxes packed in strong wooden boxes.
Tubes.....	40- 45	44- 50	50- 56	
Woven and wire fabrics....	32	63	70	
Yarn.....	50	40	45	Spools or cones of 1 pound packed in wooden boxes.
Asphaltum. See Oil; Road oils.				
Assayer's furnaces.....	16	124	138	
Atomizer or nebulizer.....	16	124	138	Compressed-air tank; bottles; tub- ing.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Awnings or covers for wagons:				
Made of canvas or cotton duck.	Pounds 8	Cubic feet 250	Cubic feet 280	25 to shipping bundle, 2.5 by 2.5 by 4 feet, wrapped with paper and tied with cord.
Tarpaulin tents.....	20	100	112	Shipped knocked down with fittings tied in bundles.
Axes, without handles.....	196	10	11	1 dozen in a case 11 by 15 by 6 inches.
With handles.....	44	45	51	1 dozen in a box 30 by 7 by 9 inches.
Axle grease.....	54	37	41	Barrels; kegs; boxes; pails; 28-gage iron cans.
Axles:				
Car axles.....	129-193	10-16	12- 17	Boxes for export, 7 feet by 1 foot 8 inches by 8 inches. Sizes vary from 5 feet to 7 feet 6 inches length, and 3 to 7 inches diameter.
Carriage and wagon.....	60- 75	27-33	30- 37	Loose and uncrated, 2.5-4 inches by 3.5-5.5 by 54-68 inches.
Locomotive.....	450	4.4	5	Shipped loose; average, 10 inches diameter by 72 inches long.
Backbands.....	15	133	149	Paper-lined bags.
Padded.....	15	133	149	Bundles, 28 by 18 by 24 inches.
Bag fasteners, wire.....	60- 80	25- 33	28- 37	
Bag holders.....	20	100	112	
Bagging.....	40	50	56	Rolls, 32 by 20 by 20 inches, wrapped with burlap.
Bags, golf club.....	12	167	186	
Baking pans.....	23	87	97	
Baking powder.....	36- 40	50- 56	56- 62	Tin cans, boxed, 12 by 7 by 8 inches or 16 by 10 by 9 inches; flour bar- rels, sugar barrels, larger barrels.
Balls:				
Fire-clay, heat-radiating....	45	44	50	
Steel crusher.....	480	4	5	4.5-16 inches in diameter.
Steel polishing.....	300	7	8	Boxes, 15 or 18 inches by 10 by 10 inches.
Balsam-fir tips.....	18- 20	100-112	112-124	Bushel bags.
Bamboo fiber.....	20	100	112	Bales, 2.5 by 2.5 inches by 4 or 5.5 feet long.
Barbed wire.....	65	31	34	On wooden reels, 16 inches diam- eter by 13½ inches high; on steel reels, 18 inches diameter by 13.5 inches high.
Barium:				
Aluminate.....	46	43	49	Barrels, 300 pounds; kegs, 75 pounds.
Chlorate.....	80	25	28	Barrels, 23 inches high, 17 inches diameter.
Chloride.....	80- 90	22- 25	25- 28	Containers holding 3 cubic feet.
Sulphide.....	40- 50	40- 50	45- 56	Wooden barrels, 400-500 pounds.
Barrel carts.....	25- 35	57- 80	64- 90	Knocked down.
Barrels, oil. See Oil barrels.				
Baseball bases, bats, and masks. See Sporting goods.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Baseballs. See Sporting goods.	Pounds	Cubic feet	Cubic feet	
Baskets, berry.....	7	286	320	
Battens, building.....	32	63	70	Crates, 6-10 feet long.
Batteries, dynamite.....	30	67	78	
Battery jars, rubber.....	11 - 13½	147-182	166-235	
Battery plates or frames, burnt-out.	57	35	40	
Battery wells.....	4	500	560	3 sizes: 8 feet 8 inches by 4 feet 10 inches, 6 feet 8 inches by 4 feet 10 inches, and 3 feet by 4 feet 10 inches.
Battery zincs. See Zinc.				
Bauxite. See Halloysite.				
Bauxite-ore concentrates.....	55 - 58	35- 36	39- 41	Loose or in bags.
Bay rum.....	36	56	62	Barrels, 24 inches diameter, 34 inches high.
Bean and pea thrashers.....	6.3- 8.4	24- 30	27- 33	
Beans, castor.....	37	54	61	Bags, 165 pounds.
Bedsteads, iron.....	5 - 8	250-400	280-448	Knocked down, 75-80 pounds to the bed.
Bee-comb foundation.....	16	125	140	
Beef extract, solid.....	67	30	33	Case of 12 1-ounce tins; case of 2 50-pound tins.
Beer.....	83	24	27	Hogsheads; barrels; ½, ¾, 1, 1½ barrels.
Beeswax.....	14	143	160	Shipped raw in all shapes and sizes wrapped in gunny sacks; also in boxes 19 by 16.5 by 20 inches and 19 by 8½ by 20 inches.
Beet sugar. See Sugar.				
Benches, folding.....	48	42	47	Shipped 2 in a bundle, 7 by 24 by 10 inches.
Benzoin.....				Cases, 75-200 pounds.
Benzoinated lard.....	42	47	53	In 1, 5, 10, 25, and 50 pound tins, boxed and crated.
Berths, galvanized, for ships, camps, or barracks. See Cots.	15	133	149	2 in a bundle, 70 by 24 by 6 inches.
Berths or bunks, steel.....	21	95	107	Wired in packages; each package contains 2 springs.
Betel or areca nuts.....				Sugar barrels, 300-350 pounds.
Bicycles.....	5 - 9	222-380	249-422	
Blackboard crayon. See Crayon.				
Blanchers for beans and peas.....	6 - 8½	240-333	264-373	
Blangas.....	81	25	28	Steel cylinders, 8.5 by 43 inches: contains 20 pounds liquified gas.
Block salt. See Salt.				
Boat knees.....	63	32	36	Loose; require 0.8 cubic foot.
Boat parts—steel-launch hulls.....	5 - 12	167-400	186-448	Knocked down.
Boilers, range.....	92	22	24	
Bolts, railroad track.....				Kegs, 200 pounds.
Bone black.....	65 - 75	27- 31	30- 34	Bags or barrels.
Bone blanks.....	40 - 43	47- 50	52- 56	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Bone grease.....	56	36	40	
Bookbinders, loose-leaf.....	17	120	135	
Do.....	46	44	49	
Bookcases:				
Filing cabinet.....	10	200	224	
Sectional.....	7.5	267	299	Crates. Crate consisting of 1-9 inch section, 1-11 inch section, and 1-13 inch section, 37½ by 27 by 29.5 inches; crate containing 1 section with glass removed, 34 by 14 by 19 inches.
Bottles, paper:				
Half pint.....	4.4	455	509	Boxes.
Pint.....	3.7	540	606	Do.
Quart.....	3.5	571	630	Do.
Bowkerosa. See Sugar clarifier.				
Bows, wagon or carriage. See Wagon bows.				
Box cars, standard.....				36 feet long, 8 feet 6 inches wide, 8 feet high.
Box straps or strapping, fiber board for fruit boxes, etc.	50	40	45	Bundles, 50 inches long, 5 inches diameter.
Boxes, bail, butter, fig, grease, or spice.	6- 7	286-333	320-376	
Boxing gloves. See Sporting goods.				
Brake blocks.....	20	100	112	
Brake lining.....	75	27	30	
Brass washers. See Washers.				
Briar-root blocks.....	25	80	90	Bags, 9 gross each; weight, 180 pounds.
Briar wood, crude.....	20	100	112	Bags, 10 cubic feet.
Brick:				
Graphite.....				Boxes, 100 and 450 pounds; kegs, 200 pounds; barrels, 500 pounds.
Insulating.....	29	69	77	Barrels, boxes, crates, laid loose in straw.
Pouring.....				Shipped loose; weight, about 60 pounds each.
Brimstone.....	47	43	48	Cases, 36 by 22 by 16 inches.
Briquets:				
Carbon, cylindrical, 2½ by 2½ inches.	43	47	52	Sacks.
Charcoal.....	31	65	72	1 dozen in box, weight 95 pounds; 2 dozen in box, weight 175 pounds.
Coal.....	49-53	38- 41	42- 46	
Lignite.....	50	40	45	
Britannia metal.....	130	15	17	Boxes; barrels.
Bromide mining salts.....	98	20	23	50-gallon barrels; iron-bound boxes, 13.5 by 15 by 22 inches.
Bronze powder.....	70-75	27- 29	30- 32	Boxes; wooden drums.
Broom-corn heads.....	10-12	167-200	187-224	Fiber-board cartons, 12-18 pounds.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Buggy bodies. See Vehicle bodies.				
Burlap:	Pounds	Cubic feet	Cubic feet	
Bituminized (gunny bagging).	34	59	66	Rolls, 400 square feet.
For compressed bales.....	44	45	51	Compressed bales, 40 by 40 by 24 inches.
Saturated with asphalt.....	21- 23	87- 95	97-107	Rolls, 32 inches long, 10 inches diameter, or 36 inches long, 15 inches diameter.
Butcher's blocks.....				60 pounds per square foot top surface.
Butter.....	50	40	45	
Butter color.....	43- 46	43- 46	49- 52	Cases, six 1-gallon cans; drums, 50-100 gallons.
Butts. See Hinges.				
Cable, insulated copper wire....	60	33	37	Reels, varying sizes; weight package, 600 pounds average.
Steel-covered, electric.....	70	29	32	Reels.
Cabinets, dental.....	11	132	204	Boxes, 24 by 42 by 72 inches.
Cable terminal boxes.....	10	200	224	
Cadmium:				
Metallic.....	275	7	8	Small bundles in boxes.
Sulphide.....	200	10	11	Barrels, 300-400 pounds.
Do.....	65	31	34	10 bags, 5 kilos each, in paper-lined wooden box; tin cans crated, 20 by 12 by 36 inches.
Calcimine or kalsomine.....	110	18	20	Tin cans, 1, 5, 10, 25-48 pounds.
Calcium:				
Acetate. See Lime acetate.				
Carbide.....	52	38	43	Drum, 22 inches high, 12½ inches diameter.
Nitrate.....	80	25	28	Casks, 240 pounds.
Calves' stomachs. See Rennets.				
Camp chairs, iron or steel, folding.	21	95	107	
Wooden, folding.....	20	100	107	
Camphor, coal tar, for household purposes.				Barrels, 500 pounds; boxes, 100 pounds; kegs, 75 pounds.
Gum.....				Barrels and cases, 100 pounds.
Canned goods. See Appendix No. 1.				
Can stock: Ends, bottoms, and tops for cans.	51	39	44	Nested in fiber or wooden boxes, 18 by 12 by 9 inches.
Candles: Paraffin, wax, or stearic acid.	29- 37	54- 69	61- 77	Cases, 7.5 by 8.5 by 16.5 inches to 14.5 by 12 by 18.75 inches.
Canoes.....	3.5	572	640	Nested.
Cant hooks.....	30	66	75	Bundles, ½ dozen, 4.5 feet long.
Canteens, aluminum, Army....	11	172	203	Each wrapped in paper, then packed in wooden boxes.
Canvas benches, folding.....	6	333	373	Bundles of 2; weight, 50 pounds.
Capstan bars.....	20- 25	80-100	90-112	Crates, 50 by 12 by 12 inches to 122 by 15 by 15 inches; 16 bars in a box.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Car axles. See Axles.	Pounds	Cubic feet	Cubic feet	
Car heaters, electric.....	20- 26	77-100	86-112	
Car seats and parts.....	10	200	224	Boxes or crates, knocked down.
Carbon:				
Bisulphide.....	75	27	30	Tank cars, drums of 60, 112-123 pounds.
Clinkers or gas retort.....	58	35	39	Boxes; bags; barrels.
Flour.....	10	200	224	Bags, 175-200 pounds; barrels, 250-300 pounds.
Tetrachloride.....	90	22	25	5 or 10 gallon cans.
Carbolineum.....	69	29	33	Drums, 30-50 gallons.
Carborundum paper. See Abrasive paper.				
Carded, hand, cotton or wool...	28	71	80	
Carpenter's chisels. See Ma- chine-shop files and rasps.				
Carpet lining.....	22	91	103	
Carriage axles. See Axles.				
Carriage poles. See Wagon poles.				
Carriage springs. See Wagon springs.				
Cartridge cases.....	30	67	75	Bundles of 100, used in packing 12½ pounds blasting powder.
Carving knives. See Machine- shop files and rasps.				
Casings, house-heating furnace.	8- 30	67-250	75-280	
Cassava flour.....	25	80	90	Bags, average weight 150 pounds.
Cassia. See Cinnamon.				
Cast-iron radiators. See Radi- ators.				
Casters for furniture.....	64-120	17- 31	19- 35	Cases; boxes; barrels.
Dastor beans. See Beans.				
Castor pomace. See Pomace.				
Caterpillar tractors:				
55 horsepower.....	27	74	83	Single package, 14 feet 5 inches by 6 feet 9 inches by 7 feet 8 inches; Holt Mfg. Co.
75 horsepower.....	17	118	132	Single package, 20 feet 11 inches by 9 feet 2 inches by 9 feet 5 inches; Holt Mfg. Co.
120 horsepower.....	17	118	132	Single package, 22 feet 1 inch by 9 feet 6 inches by 9 feet 5 inches; Holt Mfg. Co.
Caterpillar trailer.....	19	105	118	Single package, 12 feet 11 inches by 9 feet 9 inches by 5 feet 9 inches; Holt Mfg. Co.
Cayenne pepper. See pepper.				
Cell pads, for insane.....	8- 12	167-250	188-280	
Cell pitch. See Sulehite liquor.				
Cellulose.....	8	250	280	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Cement:	Pounds	Cubic feet	Cubic feet	
Furnace.....	42-130	15- 48	17- 53	Barrels; half barrels; kegs; cans.
Hydraulic. See Puzzolan cement.				
Keene.....	50	40	45	100-pound jute bags.
Linoleum.....	54	37	41	Cakes, 36 by 20 by 3.5 inches; bags of 2 cakes; cans.
Magnesia.....	20	100	112	Bags, 3.5 cubic feet.
Metallic.....	50-100	20- 40	22- 45	Barrels; kegs; steel cans.
Paving.....	75	27	30	30-gallon barrels.
Pipe fitting.....	45	44	50	Kegs; cases.
Do.....	50	40	45	Tin cans, crated.
Do.....	70	29	32	350-pound barrels; 100-pound sacks.
Do.....	77	26	29	Tin cans; kegs; barrels.
Portland.....	62	32	36	Barrels; bags.
Puzzolan.....	80	25	28	
Roofing (dry and liquid)....	75	27	30	Barrels; half barrels; kegs; tin cans.
Rubber.....	32- 56	36- 63	40- 70	Barrels; cans packed in wooden boxes.
Cement in cans.....	36	56	62	
Cement blocks.....	80	25	28	Sizes from 4 by 6 by 12 inches to 8 by 8 by 24 inches.
Chains. See Sprocket chains.				
Chairs:				
Dental.....	23	87	97	Knocked down usually.
Folding.....	13	154	172	Bundles, 38½ by 16½ by 10½ inches.
Frames of iron or steel.....	35	57	64	Knocked down.
Invalid or rolling.....	12	167	187	Knocked down flat.
School, with desk attached..	6.4	331	371	
Stenographer or typewriter..	10	200	224	Packages, 17 by 17 by 18 inches.
Surgical operating.....	86	23	26	Crated and partially knocked down, 26 by 57 by 33 inches.
Charcoal.....	16	125	140	Bags, 50-80 pounds; barrels, 100 pounds.
Charcoal, animal. See Bone black.				
Charging boxes, open-hearth furnaces.	35- 50	40- 57	45- 64	Average size, 8 by 2 by 2½ feet.
Cheesecloth or gauze.....	9-11	182-222	204-249	Boxes; bales.
Cheese color.....	50-55	36- 40	41- 45	Drums, 50-100 gallons.
Chest of red gum wood.....	12	167	187	Completely knocked down.
Chicle gum.....				Bags, 150-200 pounds.
Chicle paste.....	90	22	25	Barrels, 54-gallon; one-half bar- rels; tubs, 110 pounds.
Chrome:				
Liquor.....	75	27	30	Tank cars; steel drums, 50-100 gallon.
Paste.....	45	44	50	Barrels, 532 pounds.
Yellow.....				Sugar barrels, 500-600 pounds.
Chucca.....	46	43	49	Cases, 19 by 17 by 15 inches.
Chucca gum.....				Cases, 150-200 pounds.
Chufas.....	35	57	64	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Churns, metal.....	11	182	204	
Chutes, coal-delivery.....	10- 30	66-200	75-224	
Cigar boxes, empty.....	7.6	263	295	
Cinnamon or cassia.....	10- 36	56-200	62-224	Whole or ground in tin, glass, or paper packages, packed in wooden or fiber boxes.
Clam juice.....	40	50	56	Packages, 15 by 11 by 10 inches.
Clams, malted.....	28	71	80	Barrels; drums, 170 pounds; bot- tles, packed in wooden boxes.
Clamshells.....	30- 40	50- 66	56- 75	Bulk.
Clay, China or German.....				Casks, 1,200 pounds.
Cleaners, street car track.....	20	100	112	190 pounds each.
Clinker hooks, iron or steel.....	25	80	90	
Clips. See Paper fasteners.				
Cloth, asbestos. See Asbestos cloth.				
Clothesline.....	23	87	97	Barrels; boxes.
Wire.....	23	87	97	Reels; coils in boxes; bundles; barrels.
Clothing bags, folding wardrobe. Kraft or sulphite paper.....	10- 15	133-200	149-224	Wooden cases. Bundle of 250; weight, 38 pounds.
Cloves and clove stems.....	20	100	112	Ground, in boxes; unground, in bags and bales.
Coal hods.....	3- 7	286-666	320-747	1 single, 12 by 12 by 12 inches; nested in packages, 16 by 12 by 24 inches.
Coal hoppers.....	5- 9	222-400	249-448	
Coal-saving compounds.....	85	24	26	Barrels, 45-gallon; sacks, 100 pounds.
Coal separators, spiral.....	30- 40	50- 66	56- 75	Knocked down, crated, 33-60 inches diameter, 11-16 feet long, 700-1500 pounds.
Coal-tar camphor. See Cam- phor.				
Cobalt, linoleate.....				Barrels, 400 pounds.
Metallic.....	80	25	26	Barrels; kegs; boxes; small quan- tity in bars and ingots.
Cocoa.....	25	77	86	In bulk; barrels; cases and crates of tins (crate of 100 pounds cocoa in tins, 18 by 21 by 20 inches).
Butter.....	25	80	90	Cases, 24 by 18 by 18 inches; bales, 45 by 19 by 11.5 inches.
Cocoanut. See also Copra.				
Cocoa nuts.....				Bags, 100 nuts; weight, 150 pounds.
Crushed or grated.....	42	48	53	In cans, boxed, 17½ by 17½ by 9 inches.
Desiccated.....	34	59	66	Barrels, 29 inches high, 22 inches diameter; boxes, 157 pounds; packages, 17½ by 12½ by 9½ inches.
Oil cake.....	27	74	83	Bags.
Olein. See Oleine.				
Stearin. See Stearine.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Coffee beans, roasted.....	Pounds 15- 31	Cubic feet 65-133	Cubic feet 72-149	Bags, 25-100 pounds; cases, 10-100 pounds; tin cans crated; drums; barrels.
Coffins, glass.....	50	40	45	Boxes.
Sheet-iron, cloth-covered...	10	200	224	Average weight, 280 pounds, when packed.
Coir yarn.....	9- 33	61-222	68-249	Bales, 18 by 24 by 42 inches and 3 by 2 by 2 feet; ballots in rope form, 12 pounds each.
Colanut.....				Barrels, 310-315 pounds.
Collar blocks.....	48	42	47	Each, 24 by 6 by 4 inches.
Collar pads. See Sweat pads.				
Collodion.....	49	41	46	48-gallon barrels.
Compensators, electrical.....	40	50	56	
Computing machines, adding machines.	22- 27	74- 91	83-102	Wooden boxes, 11 by 11½ by 16½ inches to 23 by 23 by 16 inches.
Adding and listing machines.	22½	91	102	Packages, 100-200 pounds.
Conch shells.....				Barrels, 170 pounds.
Concrete distributing chutes....	2. 5	800	896	10 by 9 inches by 10 feet.
Concrete forms and molds.....	35	57	64	Knocked down, usually.
Concrete hardener. See Powdered iron.				
Concrete surface hardener.....	100	20	22	
Conduit fittings, complete.....	69	29	32	
Iron or steel parts.....	70	29	32	
Conduits, fiber.....	7	286	320	
Iron or steel.....	50	40	45	
Cones, stove or furnace.....	27	74	83	4½ inches high, 5½ inches diameter.
Congo gum.....				Cases, 150-250 pounds.
Congoleum.....	30	66	75	Cases, varying size; pieces wrapped around a fiber-board tube.
Contact block, electrical.....	160	12	14	
Containers for flour and meal.....				Carload lots: Darrels, 8.66 per cent; cotton sacks, 77½ per cent; paper sacks, 13.59 per cent. Less than carload lots: Barrels, none; cotton sacks, 99½ per cent; paper sacks, 0.5 per cent.
Controllers, electric.....	26	77	86	
Copal gum.....				Cases and bags, 150-250 pounds.
Copper:				
Bullion (98 per cent copper).....	535	3. 7	4	Slabs of 325-375 pounds.
Concentrates (15 per cent grade).	128	16	18	Sacks, 108 pounds.
Concentrates (50 per cent grade).	157	13	14	Sacks, 133 pounds.
Matte (30-50 per cent copper).	350	6	6. 4	Sacks.
Nitrate.....	90	22	25	Carboys.
Ore.....	150	13	15	Density varies according to assay.
Oxide.....	120	17	19	Barrels and in bulk.
Sulphate.....	60	33	37	Barrels.
Tacks. See Tacks.				
Washers. See Washers.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Copperas, sulphate of iron.....	92	22	24	Carboys and barrels.
Copra.....	22	91	102	Bags, 150 pounds.
Coquina shell.....				Barrels, 250 pounds.
Corncribs, wood and iron com- bined.	9	222	249	
Wooden.....	11	182	204	
Corn oil.....	30	66	75	4 dozen 5½-ounce bottles in fiber- board compartment containers.
Corn-oil cake.....	58	34	39	Sacks, 224 pounds.
Ground.....	60	33	37	Bags, 100 pounds.
Corn sirup, mixed.....	74	27	30	Barrels; half barrels; kegs; tin cans, boxed, 15½ by 11½ by 10½ inches to 22½ by 17½ by 6½ inches.
Unmixed.....	76	26	29	Barrels; half barrels; kegs; steel drums.
Corn sirup products:				
Jams.....	59	34	38	Glasses, boxed; wooden or tin pails or kits.
Jellies.....	50	40	45	
Mass.....	93	21	24	Barrels, 34½ inches high, 25½ inches diameter.
Preserves.....	59	34	38	Glasses, boxed; wooden or tin pails or kits.
Cornstalk fiber.....				Bales, 110 pounds; about size of small hay bales.
Corustarch. See Starch.				
Sugar. See Sugar.				
Corset stays or steels.....	100	20	22	
Corundum paper. See Abra- sive paper.				
Cots:				
Canvas.....	6- 8	250-333	280-373	Bundle 3 cots, 39 by 29 by 12½ inches; bundle 4 cots, 75 by 29 by 8 inches.
Jail.....				2 by 6 feet to 2 feet 6 inches by 6 feet 6 inches; weight 60-80 pounds.
Steel, folding.....	9	222	249	Bundle 1 cot, 74 by 39 by 3 inches.
Woven-wire.....	6	333	373	Bundle 2 cots, 72 by 30 by 3.5 inches.
Cotter pins: a				
⅜ by 1 inch.....	55	36	41	1 box, containing 79 000, 19 by 10½ by 27 inches.
⅜ by 1½ inches.....	80	25	28	1 box, containing 20 000, 19 by 10½ by 27 inches.
½ by 4½ inches.....	59	34	38	1 keg, containing 1000 (½ by 4½ inches).
¾ by 5½ inches.....	59	34	38	1 keg containing 500 (¾ by 5½ inches), 17 by 17 by 26 inches.
Cotton cloth, asphaltum coated.....				Burlapped bales; rolls in boxes, 403 pounds.
Cotton mop yarn. See Mop yarn.				

a Jute bags, boxes, and kegs. Trading unit, 100 pounds.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Cotton seed, green.....	30	66	75	
Well dried.....	27	74	83	
Cotton seed:				
Cake.....	60	33	37	Slabs, 14 by 30 by 0.75 inches; bags.
Hull ashes.....	40	50	56	
Hull fiber, bleached.....	20-23	87-100	97-112	Bales, 14 by 18 by 24 inches.
Meal.....	38	57	59	Bags, 100 pounds.
Softeners.....				Barrels; kegs; cases, 10-65 gallons.
Unbleached.....	34	59	66	Bales, 16 by 16 by 20 inches.
Cracker pans.....	65	31	34	Wired flat in boxes.
Crates, cracker can.....				Bundles of 10, folded flat, 34 by 1½ inches.
Poultry crates or coops.....	5	400	448	
Crayon:				
Blackboard.....	63-75	27- 32	30- 36	20-25 gross, average case 9 by 12 by 28 inches.
Lumber.....	27	74	83	Package, 13 by 13 by 12.5 inches.
Wax.....	23-30	66- 71	75- 80	Cases, 1-20 cubic feet.
Crepe paper.....	7.3	274	307	Crates, 40 by 25 by 21½ inches.
Cresol. See Cresylic acid.				
Cresylic acid.....	58	34	49	
Crucibles:				
Clay.....				Casks of 700; weight, 500 pounds.
Muffles.....				Casks of 20; weight, 600 pounds.
Scorifiers.....				Barrels of 1000; weight, 300 pounds.
Crusher balls.....				5-inch diameter ball; weight, 185 pounds.
Crutches.....	9-15	133-222	149-249	Wrapped in heavy fiber paper; tied in bundles of 1 dozen pairs; bundles 54 by 12 by 12 inches. 25 pairs and over wrapped and then crated, crates 54 by 22 by 18 inches.
Cupboards.....	3-10	200-666	224-747	Knocked down flat, except drawers.
Cupro-nickel:				
Blanks.....	167	12	13	Unfinished shapes.
Plate or sheet.....	149	13	15	
Rod.....	180	11	12	
Scrap.....	38	53	59	Bales; machine-pressed bundles.
Currycombs.....	19-30	66-105	75-118	Boxes, 1 dozen; cases of 6-24 dozen; 24-dozen case requires 9 cubic feet.
Cuspidors, dental.....	8	250	280	
Cutch (catechu).....	47-56	36- 43	40- 48	Hardwood box, wrapped in burlap.
Extract.....				Bales, 112 pounds.
Cut-outs, electrical appliance.....	80	25	28	
Cyanimid.....	40-50	40- 50	45- 56	Bags, 150-170 pounds.
Cylinders, automobile, motor-cycle.....	55	36	41	
Damar gum.....				Cases, 150-250 pounds.
Dasheen.....	48	42	47	Sold by the bushel.
Date-nut butter.....	40	50	56	Cases, 33 pounds.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Dates.....	Pounds 26	Cubic feet 76	Cubic feet 86	In small boxes and cartons in cases, 30-140 pounds.
Degras, moellon. See Oil, Sod oil.				
Degras or wool grease.....	38	53	59	Barrels, 450 pounds.
Dental cabinets. See Cabinets.				
Dental chairs. See Chairs.				
Dental plaster.....	57-62	32- 35	36- 39	Barrels, 280-300 pounds; jute sacks, 100 pounds; paper sacks, 80 pounds; cans, 2-10-20 pounds.
Desiccated eggs. See Eggs.				
Desks, birch, mahogany, oak...	42	48	53	
Office, flat-top.....	8.7	230	257	Crated, 30 cubic feet.
Roll-top.....	8	250	280	Crated with top removed from base, 45 cubic feet.
Dextrin.....				Sugar barrels, weight 300 pounds; bags, 220-280 pounds.
Dichlorbenzol.....	77	26	29	Iron drums, 50-110 gallons.
Dictaphone shaving machine (motor separate).	11	182	203	Package, 31 by 18 by 13 inches.
Dish-washing machines.....	6-12	167-333	187-373	
Ditch digger.....	40	50	56	24 by 24 inches by 14 feet.
Divi-divipods.....	16-17	118-125	132-140	
Door hasps. See Hasps.				
Doormats, oilcloth or imitation..	84	24	27	Crate of 100; 5½ by 19½ by 17½ inches.
Door springs. See Springs.				
Doors, asbestos. See Asbestos doors.				
Dough kneaders or mixers.....	10	200	224	
Dragon's blood.....				Cases, 100 pounds.
Drain tile heads.....	50	40	45	Weight, 270 pounds.
Dry-battery shells.....	12-24	83-167	93-187	
Dry cells. Spent or worn-out...	45	44	50	
Duck:				
Awning strips, width 31 inches.				7½ ounces per linear yard; bales, 20 pieces, 50 yards to piece.
Narrow, width 6-20 inches..				Rolls, 100 yards; bales, 4-5 rolls.
Number, width 26-144 inches.				Rolls, 100 yards.
Sail, width 22 inches.....				7-19 ounces per linear yard; bales, 2 pieces, 100 yards to piece.
U. S. Army, width 28.5 inches.				7-15 ounces per linear yard; bales, 400 pounds.
Dump-wagon bodies. See Wagons.				
Dump wagons. See Wagons.				
Dye, liquid pulp.....	70	29	32	Wooden barrels, 325-350 pounds.
Dyestuffs. See Alizarine; Annaline; Cutch (catechu); Gambier; Indigo paste; Liquid pulp dye; Sulphur black.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Dynamite.....	Pounds	Cubic feet	Cubic feet	In pound sticks or cartridges. For packing directions see Interstate Commerce Regulations for the Transportation of Explosives, section 1555-1559.
Eggs: ^a				
Albumen.....	45	44	50	Soldered, tin-lined, heavy wooden, iron-strapped cases.
Desiccated.....	32- 47	43- 63	48- 70	Sugar barrels; 50-pound tin-lined square boxes; tin cans boxed.
Frozen, for bakers' use.....	50- 75	27- 40	30- 45	1-2-4, 15-pound cans, wrapped in heavy paper and boxed.
Yolks.....				Barrels, 24 by 34 inches; cases, 34.5 by 18 by 19 inches.
Electric Appliances. See Manufacturer's yearbooks, e. g., Western Electric Year Book, 1918.				
Electric cable. See Cable; Telephone cable.				
Electrolytic cells.....	23	87	97	
Elevator, plungers.....	42- 50	40- 48	45- 53	
Elevators, grain, portable.....	11	182	204	
Elimi.....				Cases, 150-200 pounds.
Elliptical springs. See Wagon springs.				
Emery paper. See Abrasive paper.				
Emery wheels. See Machine-shop equipment.				
Engine and gear parts, automobile.	6- 40	50- 333	56- 374	Sizes, 15 by 13 by 7 inches to 54 by 62 by 12 inches.
Epsom salts.....				Barrels, 300 pounds net; kegs, 130 pounds net; wooden drums, 100 pounds net; bags, 300 pounds net.
Ethyl acetate.....	60	33	37	Iron drums, 50-100 gallon.
Fanning-mill seed cleaners.....	2- 7	289-1000	320-1120	
Farm wagons. See Wagons.				
Fasteners, wire-tag.....	20- 40	50- 100	56- 112	1000 in carton; weight, 2½ pounds; 100 cartons in a case; barrels; kegs.
Featherbone or quill fiber.....	20	100	112	Bundles, 1-2 pounds packed in boxes, 28 by 28 by 28 inches.
Feeders and grinders.....	6	333	373	
Felt, hair, for glass polishing.....	30- 35	57- 66	64- 75	
Fenales.....	36	56	62	
Fence stretchers.....	17- 25	80- 118	90- 132	
Fennel seed.....	20	100	112	

^a Standard egg crate holds 30 dozen. Sides, tops, bottoms of $\frac{1}{16}$ inch veneer from whitewood or cottonwood; ends and centers $\frac{1}{8}$ inch; length of sides 25 by 12.5 inches; tops and bottoms 26 by 12¼ inches; ends and centers 11¾ by 12½ inches; 4 cleats used, 11¾ by 1½ inches; thickness $\frac{1}{16}$ inch.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Fertilizers:	Pounds	Cubic feet	Cubic feet	
Black.....	9	222	249	Barrels; burlap or canvas bags.
Double manure.....	80	25	28	
Kainit.....	85	24	26	
Manure.....	85	24	26	
Sylvinit.....	85	24	26	
Fiber. See Asbestos fiber; Bamboo fiber; Cornstalk fiber; Featherbone or quill fiber; Grass fiber; Manila fiber; Palm-leaf mattress fiber.				
Field coil. See also Armature coils.	90	22	25	
Figs.....	26	77	86	Mats or hampers; skeleton crates of small boxes, 350-550 pounds; bags, 28-60 pounds; baskets, jars, cartons, 35-100 pounds.
Film. See Moving-picture films.				
Filter paper.....				Tin-lined boxes, 4 by 3 by 3 feet; 5 cases, weight, 1056 pounds.
Fine tools. See Machine-shop equipment.				
Fire-alarm boxes.....	50	40	45	
Fireplaces, sheet iron or steel, nested.	7	286	320	
Not nested.....	3	666	747	
Fish balls.....	40- 50	40- 50	45- 56	Cans; 150 cans to a case. Boxes, 25 by 19 by 14 inches; tin cans, boxed, 12 by 24 by 24 inches.
Fish glue. See Isinglass.				
Fish meal.....	40	50	56	
Fish roe, herring.....	20	100	112	Cases, 15 by 11½ by 9½ inches.
Flax straw.....	8	250	280	Bales, 20 by 21 by 46 inches.
Flint. See Silix silicia.				
Flint paper. See Abrasive pa- per.				
Flintstone or silix linings.....	170	12	13	
Flint stone pebbles.....	160	12	14	
Floats for glass melting tanks...	125	16	18	10-15 feet long.
Floor arches, stucco or paper....	18	111	125	
Flour containers. See Con- tainers for flour.				
Flour:				
Foundry.....				Bags, 140-150 pounds.
Potato.....	41	49	55	
Wheat.....	47	43	48	Bags.
Do.....	37	54	60	Barrels.
Wood. See Wood flour.				
Fly nets for horses, cotton yarn..	12	170	187	
Fly swatters.....	24	83	93	12 in box; 12 boxes in carton, 12 by 9 by 7.3 inches.
Folding benches. See Benches.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Folding chairs. See Chairs.	Pounds	Cubic feet	Cubic feet	
Fonugreek seed meal.....	45	44	50	Bags; barrels, 200 pounds.
Food-preserving compounds....	8- 50	40- 250	45- 280	Cans, boxed; bulk in boxes or crates; barrels.
Fossil flour.....	24	83	93	Bags, 100 pounds.
Foundry flour. See Flour.				
Frankincense. See Olibanum gum.				
Fresh fruits. See Appendix No. 3.				
Frozen eggs. See Eggs.				
Fruit-jar rings.....	20- 30	66-100	75-112	Fiber-board boxes, 14 by 20 by 12 inches, 14 by 14 by 20 inches, 21 by 13 by 10 inches, 14 by 18 by 10 inches, and 19 by 25 by 10 inches; 50 gross in box, 36 by 20 by 15 inches.
Fruit pectin.....	47	43	48	5-gallon square tins; 2 tins in wooden case, 22.5 by 11 by 15.5 inches.
Fur, hatters'.....	30	66	75	3-5 pound bags; cases, 60-80 bags; package, 33 by 40.5 by 51.5 inches; bales, 100-300 pounds.
Furnace casings or jackets, iron or steel, asbestos lined.	25- 85	24- 80	26- 90	Knocked down.
Furnace cement.....	42-130	15- 48	17- 53	Barrels; half barrels; kegs; cans.
Furnaces:				
Assayers' clay.....	16	125	140	Weight, 260 pounds gross.
Charcoal.....				Average weight, 20 pounds; 19 inches high, 12 inches wide.
Metal, melting, on wheels..	12- 30	66-167	75-187	
Plumbers' or tinner's'.....	13	154	172	
Soldering.....	18	111	124	Corrugated strawboard case, 13 by 13 by 17 inches; wooden crate, 9 by 12 by 26 inches.
Fuse wire.....	150	13	15	On spools packed in tin containers packed in boxes.
Fustic, extract of.....				Barrels, 550 pounds.
"G" gum.....	35- 40	50- 57	56- 64	Barrels, 200 pounds net; kegs, 100 pounds net.
Galvanizing solution.....	9	222	249	
Gambier.....				Pressed in bales, 230 pounds; small cubes, 1 inch, packed in boxes, 2-300 pounds.
Gamboge.....				Cases, 100 pounds.
Garbage cans.....	6- 8	250-333	280-373	16-gallon, 15 inches diameter, 26 inches high; 24-gallon, 18 inches diameter, 26 inches high; 32-gal- lon, 21 inches diameter, 32 inches high.
Garment hangers.....	38	53	59	
Gas burners, incandescent.....	10- 15	133-200	149-224	
Gas drips, hydrocarbon.....	52	38	43	
Gas globes.....	4- 7	286-500	320-560	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Gas mantles and parts:	Pounds	Cubic feet	Cubic feet	
Fabric.....	12	167	187	Paper boxes packed in wooden cases, 24 by 24 by 24 inches; 6000 or 7000 packed in a case.
Gas or lamp mantles.....	9	222	249	Double-faced corrugated boxes, 21 by 21 by 18 inches; case, 1000 inverted mantles, 34 by 25½ by 22 inches; case, 1000 upright mantles, 38 by 25½ by 19 inches.
Rings.....	18	110	124	Cardboard boxes packed in wooden cases, 19 by 20½ by 20½ inches.
Wires.....	32- 45	44- 63	50- 70	Tied in bundles, shipped in barrels 22 inches diameter, 28 inches high.
Gas-purifying compounds.....	33- 35	57- 61	64- 68	Iron drums; wooden boxes, 3 by 3 by 3 feet; casks, 30 inches diameter, 42 inches high; sugar barrels.
Gas-purifying compounds for acetylene gas.	45- 50	40- 44	45- 50	
Gaskets:				
For manhole and handhole plates on boilers.	75	27	30	Pasteboard boxes packed in crates or cases.
For steam-engine packing..	60	33	37	Boxes; cases; fiber packages.
For steam-fitting work.....	29	69	77	Cases.
Gasoline-pressure tanks.....	8- 10	200-250	224-280	
Gatto gum (Ghatti).....	28	71	80	Bags, 112 pounds.
Gauze. See Cheesecloth.				
Gelatin:				
Broken pieces.....	10	200	224	Package, 3½ by 5 by 10 inches.
Flake or sheet.....	17- 25	80-117	90-132	Casks, 265-315 pounds; kegs, 61 pounds.
Ground.....	34- 38	53- 59	59- 67	Barrels, 276-335 pounds.
Do.....	26	77	86	Kegs, 91 pounds.
Do.....	24	83	93	Boxes, 35 pounds.
Sheets.....	33- 42	48- 61	53- 97	
Shredded.....	15	133	149	Casks, 185-215 pounds; barrels, 100-150 pounds; kegs, 36 pounds.
German-silver ingots.....	215	9. 3	10	
Ginger, ground.....	20	100	112	Boxes; drums.
Glass, powdered.....	75	27	30	Bags, 250-500 pounds.
Glass-faced brick. See Brick.				
Glass-factory bootlegs.....	70	29	32	180 pounds each.
Glass-flattening stones.....	154	13	15	Dimensions, 48 by 69 by 5 inches to 84 by 100 by 5 inches.
Glass goblets. See Goblets.				
Glassware, fish globes.....	9- 14	143-222	160-249	
Towel rods.....	25	80	90	
Glazier lead. See Lead.				
Gloves and mittens.....	15	133	149	1 dozen bundles or paper cartons packed in wooden boxes, fiber containers, or cases, average 36 by 40 by 40 inches.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Glue:	Pounds	Cubic feet	Cubic feet	
Dry.....	27	74	83	Bags; barrels.
Flake form.....	33- 50	40- 60	45- 68	Bags, 150 pounds; barrels, 350-500 pounds.
Powdered.....	38	53	59	Bags, 100 pounds.
Fish glue.....	78	26	29	Barrels; kegs; cans; bottles.
Liquid or jelly.....	50- 55	36- 40	41- 45	Jelly glue in cakes semisolid, 8 inches square, 3 feet long.
Gluten feed.....	40	50	56	
Gluten meal.....	39	51	57	
Glycerin.....	60	33	37	Cans packed in boxes, 50 pounds.
Goblets.....				Barrels, 100-135 pounds.
Grain baggers.....	9	222	249	
Grain elevators.....	11	182	204	
Granulated lead. See Lead.				
Graphite brick. See Brick.				
Graphite or plumbago stoppers..	68	29	33	Tight hardwood, 55-gallon barrels.
Graphotype.....	57	35	39	Boxes, 21 by 23 by 25 inches; crates, 25.5 by 36 by 50 inches.
Grass fiber.....	20	100	112	Parcels, 5 pounds each, then compressed.
Grating, air-duct.....	15- 25	80-133	90-149	
Griddle holders, asbestos.....	16	125	140	Cases; crates; boxes.
Griddles, asbestos.....	17	118	132	Cases.
Griddles, soapstone.....	53- 80	25- 38	28- 42	1 dozen griddles 8 by 16 inches, case 20.5 by 12 by 10.5 inches; 1 dozen griddles 9 by 18 inches, case 20.5 by 11 by 14.5 inches; 1 dozen griddles 14 by 14 inches, case 14.5 by 14.5 by 14.5 inches.
Grinding wheels, carborundum	140	14	16	Stout boxes; barrels; kegs, packed with sawdust.
Corundum or emery.....	150	13	15	Do.
Grits.....	37	54	61	Sacks; bags.
Brewers'.....	40	50	56	Burlap bags, 100 pounds.
Refined.....	52	38	43	Bags, 100-140 pounds.
Grommets.....	51	39	44	Boxes; barrels.
Guayule resin grease (Maia-gum).	60	33	37	Oil barrels.
Guaiac gum.....				Barrels and cases, 100-450 pounds.
Gum arabic.....	32- 35	57- 63	64- 70	Bales, 35 by 25 by 14 inches and larger.
Gun-barrel tubes.....	66- 85	24- 30	26- 34	100-120 in box, 13½ by 14½ by 40 inches.
Gun barrels:				
Autoguns.....	25	80	90	10 in case, 36.5 by 15 by 16 inches.
Autorifles No. 1.....	35	57	64	10 in case, 25.5 by 16.5 by 13.5 inches.
High-power rifles.....	36	56	62	10 in case, 30 by 15½ by 10½ inches.
Pump guns.....	30	67	75	10 in case, 34 by 16 by 12.5 inches.
Single-shot rifle No. 4.....	33	60	68	10 in case, 25.5 by 15 by 10 inches.
Single-shot rifle No. 6.....	40	50	56	10 in case, 23 by 13 by 8 inches.
Gun butt plates, imitation rubber.	10- 15	133-200	149-224	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Gun wads, felt.....	14- 19	105-143	118-160	
Gutta-percha.....	75	27	30	Bottles; jugs; cases.
Gypsum. See also Silesian white.	85	24	26	
Hair, cattle.....	5- 7	286-400	320-448	Wooden boxes, 48.5 by 27.5 by 30 inches; some in strawboard boxes.
Haircloth:				
Camel's-hair press.....	45	44	50	Rolls, 15 inches wide, 4-4½ feet diameter, wrapped in burlap.
Crinoline.....	22	91	102	Cases, 46 by 29 by 27 inches.
For coat fronts.....	20	100	112	Bales, 24 by 12 by 6 inches.
Haircloth clippings.....	17- 26	77-118	86-132	Bags; compressed bales, 500-700 pounds.
Hair, human, waste.....	40- 50	40- 50	45- 56	Bales, 45 by 24 by 18 inches.
Halloysite.....	100	20	22	
Hame sticks.....	32	63	70	Sacks, 16 pounds.
Hammers:				
Blacksmiths' hand.....	47	43	48	½ dozen in box; 6 dozen in case, 33.5 by 20.5 by 13 inches.
Carpenters' claw.....	50	40	45	Case, 23 by 16 by 11 inches.
Cast-iron shingling.....	50	40	45	Do.
Riveting.....	50	40	45	Do.
Setting.....	50	40	45	Do.
Hammocks, couch.....	9	222	249	Each folded flat, baled in burlap 6 by 30 by 72 inches.
Handles:				
Bamboo.....	12	167	187	42 inches long.
Brown, with metal brown holder.	6.5	308	345	Crate, 44.5 by 24 by 4.5 inches.
Sadiron.....	39	51	57	
Wire handles and bails....	90	22	25	
Wooden broom.....	25- 30	67- 80	75- 90	
Hand planes. See Machine- shop files and rasps.				
Hand trucks, four-wheeled....	29	69	77	Body, knocked down, in package, 120 by 40 by 20 inches. Wheels in separate crate.
Two-wheeled.....				Body, knocked down, package 6 by 72 by 36 inches or 8 by 19 by 35 inches. Wheels in separate package, 36 inches diameter.
Handsaws. See Machine- shop files and rasps.				
Hard salts. See Sylvinit.				
Hartsalz.....	85	24	26	Bags, 200 pounds.
Hasps and hooks combined.....	60- 70	29- 33	32- 37	3 dozen in paper cartons, packed in cases, 21 by 13.5 by 12.5 inches.
Hat bodies:				
Buckram.....	11	182	204	Bags.
Felt.....	21	95	107	Do.
Straw.....	6- 8	250-333	280-373	Burlapped bales, 10-12 in box.
Hats and caps.....	10- 13	154-200	172-224	Crates; barrels.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Hatchets.....	Pounds 31- 40	Cubic feet 50- 65	Cubic feet 50- 72	2 dozen in case, weight 90 pounds; 4 dozen in case, weight 140 pounds; 6 dozen in case, weight 180-200 pounds.
Hatters' fur. See Fur.				
Headlights:				
Acetylene, sheet steel body.	10	200	224	
Electric, for locomotives, sheet-iron body.	7	286	320	
For street cars, cast- iron body.	20- 29	69-100	77-112	
For street cars, sheet- iron body.	16- 25	80-125	90-140	
Incandescent, cast-iron body.	25	80	90	
Oil, sheet steel.....	10	200	224	
Heaters:				
Feed water with metering attachments.	40- 50	40- 50	45- 56	
Locomotive superheaters....	30	67	75	Knocked down, weight 750-1250 pounds.
Water, gasoline or oil.....	15	133	149	2 parts, 1 crate, 23½ by 20 by 11½ inches; 1 box, 28½ by 16½ by 13½ inches.
Hemp yarn. See Yarn.				
Hinges:				
Brass automobile.....	110-190	10- 20	12- 20	Package, 1.07-1.6 cubic feet.
Common brass butts.....	50-730	3- 40	3- 45	Package, 0.5-2.38 cubic feet; bar- rels.
Composition continuous....	264-300	7- 8	7- 8.5	Package, 0.23-0.26 cubic feet.
For hanging doors, screens, etc.	154	13	15	Paper cartons, packed in box, 21½ by 13½ by 9 inches.
Hockey sticks. See Sporting goods.				
Holts, chain.....	47	43	48	Box, 17 by 27 by 36 inches.
Hay press.....	48	42	47	
Homogenizers, for dairy plants..	38	53	59	3 feet 6 inches by 5 feet 5 inches by 3 feet.
Honey, comb.....	55	36	41	Case of 24 frames, 4½ by 4½ by 1½ inches.
Strained.....				Two 5-gallon cans to the case; weight, 140 pounds.
Hoods or canopies for stoves....	4	500	560	
Hooks and eyes, dressmaking..	19	105	118	
Hopper gates.....	45	44	50	
Horn tips.....	73	27	31	Bags, 225 pounds.
Horse blankets, shoddy.....	26	77	86	
Horse collars.....	9- 10	200-222	224-249	Bales of 1 dozen, oval shape, aver- age size, 20 by 24 by 48 inches.
Hose couplings, brass.....	26	77	86	Package, 14 by 14 by 10 inches.
Hot-water bottles, metal.....	14	143	160	
Hot-water radiators. (See Radiators.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
House-moving trucks.....	Pounds 31	Cubic feet 65	Cubic feet 72	Knocked down; complete outfit; weight, 500-1700 pounds.
Hydraulic cement. See Ce- ment, Puzzolan.				
Hydrochloric acid.....				Carboys, 18° B., 125 pounds net; 208 pounds gross; 20° B., 128 pounds net, 211 pounds gross; 22° B., 131 pounds net, 214 pounds gross.
Hydrofluosilic acid.....	84	24	27	Barrels; tank cars.
Hydrol.....	76	26	29	Barrels, 33½ inches high, 25¼ inches diameter.
Ice-cream can linings.....	28	71	80	
Incinerators, garbage:				
For consuming matter by coal fire.	34	59	66	Crated, 4 feet high, 2 feet diameter.
McCall's, adopted by U. S. Army.	23	87	97	
Square, large size.....	8	250	255	Crated, 30 inches square, 5 feet high.
Small size.....	17	117	132	Crated, 18 inches square, 4 feet high.
Indigo pastes, synthetic.....				Barrels, 500 pounds.
Injectors.....	40	50	56	Boxes.
Inkstands, earthenware.....	43	47	52	
Insecticides:				
Fly and germ killer.....	35- 60	33- 57	37- 64	5-gallon cans, jacketed; 1 dozen gallon tins, boxed, 22 by 17 by 12 inches.
Lead arsenate.....	47	43	48	Barrels; wooden pails, crated; glass or stoneware in fiber cases.
Lead arsenate, paste.....	135	15	17	
Lime and sulphur combi- nation.	35- 46	43- 57	49- 64	Barrels; fiber or veneer drums; cans; glass and stoneware con- tainers.
Sheep dip.....	41	49	55	5-gallon cans heavily crated, 12 by 9 by 14 inches.
Insulating compounds.....	30-100	20- 67	22- 75	Casks; barrels.
Insulating material, hemp fiber.	12	167	187	
Insulators, joint.....	75	27	30	Boxes.
Invalids' bed rests.....	15	133	149	½ dozen in crate, 9 by 28.5 by 30 inches.
Invalids' or wheeled chairs, folded.	5- 8	250- 400	280- 448	Folded.
Knocked down.....	12	164	186	Knocked down flat.
Iron acetate.....	81	25	28	Barrels, 43-48 gallons.
Iron chloride, dry.....	62	32	36	Barrels; jars; bottles.
Liquid.....	55- 88	23- 36	25- 41	Carboys; demijohns; bottles.
Iron-cleaning compound.....	53	38	42	
Iron nitrate. See Copperas, ni- trate of iron.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Iron, powdered, concrete hard- ener.	Pounds 164-200	Cubic feet 10- 12	Cubic feet 11- 14	Bags, 50-100 pounds; kegs; barrels; casks.
Ironite.....	164	12	14	Bags, 100 pounds.
Ironing boards.....	21	95	107	1 dozen in 2 packages; also flat in bundles of 2, 15 by 6.5 by 58.5 inches.
Ironing table.....	25	80	90	Knocked down.
Ironite. See iron, powdered.				
Isinglass.....	24	83	93	Case, 19 by 19 by 39 inches; half case, 19 by 19 by 26 inches.
Jail cots. See Cots.				
Juniper berries, dried.....				Sacks, 125 pounds.
Jute bags and waste.....	15	133	149	Bags or bales, machine pressed.
Kainit.....	85	24	26	Bags, 200 pounds.
Kapok fiber.....	2- 13	154-1000	172-1120	Compressed bags, 5 feet 6 inches by 3 feet by 2 feet 6 inches. Compressed bales, single, 2 by 2 by 2 feet; double, 2 by 2.5 by 4 feet; triple, 2 by 3 by 4 feet.
Karaya gum.....	31	65	72	Sugar barrels; boxes, 20 by 14 by 12 inches and 15 by 11 by 9 inches.
Keene cement.....	50	40	45	Jute bags, 100 pounds.
Keg, standard, nail.....				16 by 12 by 11 inches; tare, 8 pounds.
Kino gum.....				Cases, 100-200 pounds.
Kola nuts.....				Barrels, similar to sugar barrels, 300-315 pounds.
Kowrie gum.....				Bags and cases, 150-300 pounds.
Lac gums. See Shellac.				
Lac refuse.....				Bags, 164 pounds net.
Lactic acid.....	30	67	75	Barrels, 52 gallons.
Lamp guards, nested.....	25- 30	67- 80	75- 90	Nested.
Not nested.....	7- 10	200- 286	224- 320	
Lamp mantles. See Gas man- tles.				
Lamp sockets, for electric lamps.	34	59	66	
Lamps.....	18	111	124	
Lamps, automobile. See Au- tomobile.				
Lanolin.....	45	44	50	Packed in tins, 140 pounds per case.
Lanum.....	45	44	50	Do.
Lap links or rings.....	150-250	8- 13	9- 15	Barrels; boxes.
Lard, benzoinated. See Ben- zoinated lard.				
Lard oil. See Oil; Tallow.				
Lasts or last stands.....	60- 80	25- 33	28- 37	
Lathing.....	34	59	66	
Lathing, cellular.....	15	133	149	
Tarred paper, wire inter- woven.	20	100	112	
Laundry blue, dry powder or crystals.	50	40	45	
Laundry starch. See Starch.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Lead:	Pounds	Cubic feet	Cubic feet	
Bars.....	228	9	10	Boxes, 15 by 7½ by 6¾ inches; kegs, 21.5 inch staves by 12 inches diameter.
Dust.....	40	50	56	
Glaziers.....				On reels, various sizes, boxed.
Granulated.....	400	5	5.6	Bags, 25-50-100 pounds.
Ingot.....				Wired in bundles, 100 pounds.
Sheet.....				Rolls, slatted; boxes.
Wool.....	93-111	18- 22	20- 24	Bags, 12 by 12 by 6 inches; reels, 12.5 inches diameter, 15 inches high.
Lead arsenate. See Insecticide.				
Lead bars. See Lead.				
Lead concentrates.....	275	7	8	
Lead-covered telephone cable. See Telephone cable.				
Lead linoleate.....				Barrels, 400 pounds.
Lead pipe.....	47	43	48	Barrels, 300 pounds.
Do.....	35- 65	31- 57	34- 64	Box, 6 by 6 by 96 inches to 18 by 36 by 36 inches.
Do.....	66- 92	22- 30	24- 34	Crates, 6 by 28 by 28 inches to 7 by 18 by 120 inches.
Do.....				Casks, 39 by 144 inches, weight 1875 pounds, to 40 by 42 inches, weight 1100-1200 pounds.
Do.....				Reels, 29 by 30 inches, weight 1200 pounds, to 21 by 31 inches, weight 585 pounds.
Do.....				Coils in straw, 7 by 32 inches, weight 200 pounds, to 40 by 40 inches, weight 240 pounds.
Do.....	65	31	34	Wire covered.
Lead sulphate.....	118	17	19	Wooden barrels; steel kegs; pails; drums.
Lead wire.....	63-170	12- 42	13- 47	On reels, 11 by 10 inches to 20 by 24 inches.
Do.....	143	14	16	Barrels, 36 by 24 inches.
Do.....	84-224	9- 24	10- 27	On spools, crated, 9 by 9 by 9 inches to 16 by 16 by 18 inches.
Lead wool. See Lead.				
Leads, printers'. See Printers' leads.				
Leather:				
Artificial.....	30	67	75	Cases, 55 by 16 by 15 inches; bales not over 60 inches long.
Board.....	36	56	62	Slat bundles, 50 pounds each.
Stain.....	75	27	30	Barrels, 50-gallon.
Softener.....	67	30	33	5-gallon tin cans with a wooden jacket.
Lenses, lighthouse.....	14	143	160	Boxes. 45-60-70-85 cubic feet.
Levels, railroad track.....	18	111	124	Boxed.
Library paste. See Paste.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Licorice root, spent.....	47	43	48	Used for fuel purposes.
Lightning arrester, electric.....	20	100	112	5-gallon carboy, 13 by 15 by 31 inches; 10-gallon carboy, 19 by 21 by 35 inches; 15-gallon carboy, 20 by 21.5 by 40 inches.
Lignin liquor (called also Sulphite pitch, Glutrin, Spruce extract, and Lignosite).	77	26	29	
Lime.....	32	63	70	Barrels, holding 5 bushels.
Acetate (acetate of calcium).				Sacks, 140 pounds.
Nitrate. See Calcium nitrate.				
Nitrogen.....	60	33	37	Tank cars; drums; barrels; packages 100-1000 pounds.
Limestone, ground.....	85-115	17- 24	19- 26	Barrels, 417 pounds; burlap bags, 100-200 pounds; paper bags, 100 pounds.
Lincrusta.....	28	72	80	Bundles, 10 inches diameter, 21 inches long, wrapped in heavy paper, ends reinforced.
Lining, crinkled paper or fiber..	27	74	83	Wood and fiber-board cases, 7 sizes, 7 by 11 by 40 inches to 22 by 40 by 21.5 inches.
Shoddy.....	18- 20	100-111	112-124	Exclusively in machine-pressed bales, 42 by 32 by 28 inches.
Linoleum cement.....	54- 70	29- 37	32- 41	Cakes, 36 by 20 by 3.5 inches; bags, 2 cakes; 5-gallon cans, crated, 14½ by 10½ by 10½ inches.
Linseed cake.....	60	33	37	Bags, 300 pounds.
Linseed-oil soap. See Soap.				
Litharge.....	200	10	11	Barrels, 500-800 pounds.
Litters. See also Stretchers....	11	182	208	Litters detached and crated or boxed, 24 by 27 by 75 inches; carriage frame, crated, 28 by 28 by 65 inches.
Loading coil. See Telephone transformer.				
Locks. See Machine - shop equipment..				
Locomotive axles. See Axles.				
Logwood extract.....	15	133	149	Cotton bags, paper lined; boxes of solid extract, 20-150 pounds; barrels of liquid extract, 510 pounds.
Machine guns.....	27	74	83	
Machine-shop equipment:				
Anvil tools.....	240	8	9	
Carpenters' chisels.....	80	25	28	
Carving knives.....	16- 20	100-125	112-140	
Emery wheels.....	90	22	25	
Files and rasps.....	100	20	22	Wooden cases, 16 by 24 by 12 inches.
Fine tools.....	30- 50	40- 67	45- 75	
Hand planes.....	55	36	41	
Handsaws.....	25	80	90	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Machine-shop equipment—Con.	Pounds	Cubic feet	Cubic feet	
Hatchets.....	35	57	64	
Locks.....	80-100	20- 25	22- 28	
Pocket knives.....	90	22	25	
Rasps.....	30	67	75	
Rules.....	75	27	30	
Try squares.....	55	36	41	
Magnesia cement.....	20	100	112	Bags, 3.5 cubic feet.
Magnesium:				
Chloride.....	25	77	86	Bottles, 5-pound, 1-pound, and smaller; jars, 25-37.5 pounds.
Ingot.....	8- 10	200-250	224-280	Boxes, 100 pounds.
Powder.....	6	338	373	Cans, 10 pounds.
Malted clams. See Clams.				
Malted milk. See Milk, malted.				
Manganese:				
Chloride.....	60- 62	32- 33	36- 37	Barrels, average 70 pounds.
Linoleate.....				Barrels, 400 pounds.
Oxide, black.....	120	17	19	Sacks, bags, 200 pounds; imported in 1000-pound barrels.
Resinate.....	12	160	178	Barrels, 180 pounds.
Mangers, feed boxes, or troughs, cast iron.	70	29	32	
Sheet iron.....	7	286	320	
Mangrove bark. See Tanning extract.				
Manila fiber.....	30	67	75	
Manila gum.....				Bags, 150-200 pounds.
Mantles. See Gas mantles.				
Manure salts. See Sylvinit.				
Maple sugar. See Sugar.				
Marbles, steel.....	107	19	21	
Marine lights, for life buoys.....	25- 30	67- 80	75- 90	
Mariola gum.....				Barrels; kegs; burlap bags; boxes.
Mastic.....				Cases, 100-200 pounds.
Match blocks.....	22	91	102	Cases, 31 by 25.5 by 22 inches.
Mattocks.....	36- 50	40- 56	45- 62	1 dozen in box, 32 by 13 by 10 inches; 2 dozen in box, 3.2 cubic feet.
Mattress, wire, woven or linked.....				Barrels, 300-500 pounds.
Mazam.....	16	125	140	Bags, 100 pounds.
Meal:				
Corncob.....	18	111	124	
Gluten. See Gluten meal.				
Peanut. See Peanut meal.				
Meal containers. See Containers for flour and meal.				
Meal cutters.....	23	87	97	Require 10.6 cubic feet each.
Mercury.....				Steel flasks, 90 pounds.
Metal-purifying compounds.....	115	17	19	Loose; kegs, 100 pounds; barrels, 700 pounds.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Metal shingles. See Shingles.	Pounds	Cubic feet	Cubic feet	
Metallic cement.....	100	20	22	Heavy tin cans, sealed and boxed in heavy wire-bound cases; weight full case, 400 pounds.
Do.....	50- 80	25- 40	28- 45	Wooden barrels; kegs; steel cans.
Meter tanks:				
14-gage.....	10	200	224	
16-gage.....	14	143	160	
20-gage.....	36	56	62	
Cast.....	48- 64	31- 42	35- 47	
Methyl acetate.....	59	34	38	Iron drums, 50-100 gallons.
Milk, malted.....	30- 55	36- 67	41- 75	Steel drums, 29.5 inches high, 21 inches diameter; glass containers packed in excelsior in sugar barrels.
Powdered.....	47	43	48	Oiled paper-lined barrels, 200 pounds; tin-lined wooden boxes, 59 pounds; cases of 24 1-pound cans, 12 5-pound cans, and 6 10-pound cans.
Milking machines.....	10- 15	133-200	149-224	
Millboard, asbestos. See Asbestos millboard.				
Milling machinery:				
Bolting and scalping reels..	7- 15	133-286	149-320	
Bolting and scalping sieves..	50	40	45	Knocked down.
Do.....	5- 20	100-400	112-448	Set up.
Bran duster, upright.....	4- 19	105-500	118-560	
Bran dusters, horizontal....	14- 28	71-143	80-160	
Corn degerminators.....	35- 85	24- 57	26- 64	
Corn shellers and cleaners, combined.	5- 12	167-400	187-448	
Feed-brake governors.....	20- 30	67-100	75-112	
Flour aging or bleaching machine agitators.	14- 17	118-143	132-160	
Flour, feed, or meal feeders and mixers.	4- 15	286-500	320-560	
Flour and meal packers....	8- 29	69-250	77-280	
Germ separators.....	7.5	267	299	
Heaters, steamers, and temperers.	15- 40	50-133	56-149	
Meal coolers.....	4.5	444	498	
Meal driers.....	20- 30	67-100	75-112	
Oat and rice clippers.....	6- 8	250-333	280-373	
Rice hullers.....	15- 25	80-133	90-149	
Rice hullers and polishers combined.	15- 25	80-133	90-149	
Rice polishers.....	15- 20	100-133	112-149	Knocked down.
Do.....	9	222	249	Set up.
Mimeograph ink.....	55	36	41	Tin cans, $4\frac{1}{2}$ by $3\frac{3}{8}$ by $2\frac{1}{4}$ inches.
Mittens. See Gloves.				
Moellon degreas. See Oil; Sod oil.				

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Mohair in grease.....	Pounds 8- 10	Cubic feet 200-250	Cubic feet 224-280	Bales and sacks, 180 pounds.
Molasses.....	53- 88	23- 38	25- 42	Tin cans, boxed; barrels; half barrels; kegs; tank cars.
Molasses carbon residue.....				Bags, 200 pounds.
Monazite sand.....	125	16	18	Canvas sacks, 100 pounds.
Monel-metal ingots.....	558	3.6	4	Vary from 100-1600 pounds.
Monel-metal wire.....	554	3.6	4	Barrels; coils.
Monochlorbenzol.....	35	57	64	Iron drums, 50-110 gallons.
Mop yarn, cotton.....	14- 20	100-143	112-160	In skeins and on tubes pressed in bales, wrapped in paper, and covered with burlap, 48 by 30 by 24 inches; skeins, 34 by 38 by 28 inches; tubes, 29 by 24 by 14 inches.
Mordant.....	30	67	75	
Mosaics.....				10 pounds per square foot.
Mother-of-pearl shell. See Pearl shells and also Sea shells.				
Motorcycle:				
Cylinders. See Cylinders.				
Mud guards.....	36- 43	47- 56	52- 62	Crates, 36 by 38½ by 8½ inches to 38 by 33 by 9½ inches.
Package carriers.....	9	222	249	Crates, 52 by 65 by 51 inches.
Motorcycle side cars.....	5.6- 7.3	274-357	307-400	Crates, 44 by 36 by 31 inches to 62 by 32 by 31 inches.
Motorcycles.....	6- 17	118-333	132-373	Dimension crates, 83 by 36 by 12 inches to 100 by 43 by 25 inches.
Moving picture:				
Booths.....	36- 40	50- 56	56- 62	Knocked down.
Films.....	17- 24	83-118	93-132	Average wooden case, 20 by 10 by 20 inches.
Reels.....	25- 87	23- 80	26- 90	
Mussel shells.....	100	20	22	
Mustard bran.....	33	61	68	2-4 bushel bags.
Mustard cake.....	60	33	37	3-bushel bags; burlap bags, 200 pounds.
Myrobalan. See Tanning extract.				
Myrrh gum.....				Cases, 100-200 pounds.
Nail keg, standard.....				Dimensions: 16 by 12 by 11 inches, tare weight, 8 pounds.
Nail pullers.....	75	27	30	
Nails, tree.....	59	34	38	
Zinc shoe.....	128-143	14- 16	16- 18	Boves, 15 by 12 by 8 inches.
Naphtha and toluol and xylol....	67- 70	29- 30	32- 33	
Nickel:				
Anodes.....	200	10	11	Barrels; boxes, different sizes.
Crude.....	384	5.2	5.8	Slabs, 6 by 15 by 2 inches.
Shot.....	283-313	6.4- 7.1	7.2- 7.9	Kegs, 100-1000 pounds.
Nitrate-soda-sulphur mixture...	50	40	45	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Nitric acid.....				36° B., 226 pounds; 38° B., 228 pounds; 40° B., 230 pounds; 42° B., 232 pounds; 44° B., 234 pounds.
Nitro and cellulose.....	30	67	75	Zinc-lined wooden containers, 30 by 16 by 40 inches.
Nitroxyline, liquid.....	66	30	34	Iron drums, 32 inches diameter, 41 inches long.
Nut meats, sweetened and salted pecans.	23	87	98	Corrugated cartons; boxes; barrels.
Nutgalls.....	28- 62	32- 72	36- 80	Packages, 4-9 cubic feet.
Oars, boat, long.....	22	91	102	6 cubic feet.
Short.....	25	80	90	12 cubic feet.
Oil:				
Albasol.....	75	27	30	50-gallon barrels.
Amber.....	50	40	46	In tanks or tank cars.
Anise seed.....	62	32	36	Do.
Battery.....	56	36	40	Barrels; glasses, boxed.
Camphor.....	57	35	39	In tanks or tank cars.
Castor.....	61	33	37	2-5 gallon cans, 10 by 20 by 15 inches; 4-5 gallon cans, 21 by 21 by 16 inches.
Coal-tar.....	62	32	36	Metal cans in boxes; barrels.
Coconut.....	58	35	39	In tanks or tank cars.
Cod-liver.....	56	36	40	2-5 gallon can cases; 30-gallon tin-lined barrels.
Cooking.....	56	36	40	
Corn, refined.....	30- 68	29- 67	33- 75	5-10 gallon containers; fiber-board containers of 48-5.5 ounce bottles.
Solidified.....	60	33	37	Barrels, 33½ inches high, 25½ inches diameter.
Cotton-seed, liquid.....	58	35	39	In tanks or tank cars; barrels.
Solidified.....	55	36	41	Bags; barrels.
Creosote.....	64	31	35	Flat-top cans, ½, 1, 2, 3, 4, 5, 6, 8, or 10 gallon.
Fish.....	56	36	40	
Harness.....	56	36	40	52-gallon barrels.
Japan.....	57- 69	29- 35	32- 39	52-gallon barrels; cans; tank cars.
Lavender.....	55	36	41	In tanks or tank cars.
Lemon.....	49	41	46	
Linseed.....	59	34	38	Barrels; tanks; tank cars.
Miscellaneous refined:				
Burning.....	50	40	45	Cases 2-5 gallon cans, in nailed or wire-bound yellow or white pine boxes and in gum boxes.
Gasoline and naphtha.	46	44	49	
Lubricating.....	55	36	41	
Mustard seed.....	55	36	41	Barrels, 3.5 feet high, 3 feet diameter, and larger 60-gallon barrels.
Mystic. See Rosin.				
Neat's-foot.....	55	36	41	
Oleo.....	55	36	41	
Olive.....	57	35	39	Tanks; tank cars.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Oil—Continued.				
Paint. See Oil, regal paint.	Pounds	Cubic feet	Cubic feet	
Palm.....	57	35	39	Tanks; tank cars; hogsheads, 40 inches diameter and 45 inches diameter.
Peanut.....	56	36	40	Quart, half-gallon, gallon, and 5- gallon tins; small, medium, and large bottles.
Pine.....	54	38	42	50-gallon barrels; tank cars.
Pine tar.....	62	32	36	Do.
Rapeseed.....	40-57	35- 50	39- 56	Barrels, 35 inches long, 26 inches diameter. For sanctuary pur- poses, in 5-gallon tin cans, boxed, and cases of 2 dozen 24-ounce cans.
Red.....	55	36	41	Tank cars; barrels, 450 pounds; half barrels.
Refined. See Miscella- ous refined.				
Regal paint.....	61	33	37	50-gallon barrels.
Resin.....	60	33	37	Tanks; tank cars.
Road.....	54	38	41	
Sesame.....	32-46	44- 63	49- 70	Glass bottles, cased.
Sod. See Moellon degreas.				
Soya bean.....	55	36	41	
Spiritine or spiritine.....	69	29	32	Barrels.
Tallow.....	55	36	41	Tierces, 462 pounds; barrels, 440 pounds.
Turpentine.....	60	33	37	Tanks; tank cars.
Valerian.....	55	36	41	Do.
Wood tar. See Creosote.				
Wool and wax paraffin.....	49- 55	36- 41	41- 46	
Oil barrels:				
13-gage metal barrels.....				Weight over 100 pounds each.
16-18 gage metal barrels.....				Weight over 78 pounds each.
Wooden barrels.....				Weight over 72 pounds each.
Oil cake, peanut.....	45- 56	36- 44	40- 50	Bags.
Oilstones. See Whetstones.				
Oil strainers.....	79	25	29	
Oil-wagon tanks. See Wagons.				
Oiled clothing.....				Long coats or slickers, 1 dozen to a case, 11 by 17 by 31 inches; jack- ets and pants, 24-50 garments, 11 by 17 by 31 inches; hats, 25 dozen to a case, 11 by 17 by 31 inches; 20 horse covers or 50 jackets or pants, case, 15 by 30 by 30 inches.
Oilers, feloe, cast iron.....	40	50	56	
Sheet iron.....	8	250	280	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Olein	Pounds 60	Cubic feet 33	Cubic feet 37	Cans, in 100-pound cases; barrels, 26 inches diameter, 33 inches high; drums, 24 inches diameter, 33.5 inches high.
Oleomargarine	32- 45	44- 61	50- 70	Bulk, in tubs, 14 by 16 by 16 inches; in tierces, 25 by 25 by 34 inches; in cartons, in boxes, 15 by 11 by 8.5 inches; in bricks, in boxes, 16 by 14 by 6 inches; in rolls, in boxes, 16 by 14 by 8.5 inches; in cans, as boxes, 12 by 21 by 22 inches. in
Olibanum gum				Bags and cases, 100-200 pounds.
Onions	32- 36	56- 63	62- 70	Bushel baskets; crates; bags.
Onyx, unfinished	167-180	11- 12	12- 13	In rough blocks of $\frac{1}{2}$ ton to 10 tons, received from the quarry.
Operating chairs. See Chairs.				
Ore milling and smelting machinery:				
Accumulators	35	56	64	Set up; exported knocked down.
Agitators	30- 40	50- 67	56- 75	
Amalgam safes	20	100	112	
Amalgamating barrels	39	50	57	86 cubic feet per barrel.
Bin gates	55	36	41	
Cages	8	250	280	Set up; knocked down for export.
Chlorination barrels	75	26	30	
Classifiers	50	40	45	
Clean-up barrels	39	50	57	86 cubic feet per barrel.
Concentrating tables	22	90	102	Knocked down.
Concentrator table or vanning machine frames, iron, steel, or wood.	12- 40	50-164	56-186	
Converters (copper matte into blister copper).	31	63	72	
Grizzlies	60	33	37	
Landing dogs	120	17	19	Knocked down.
Mine hoists, complete (drums, gears, cables, etc.).	60-100	20- 33	22- 37	
Ore driers	45	44	50	
Ore roasting or smelting furnaces.	30- 35	56- 67	64- 75	Knocked down.
Ore samplers	25- 50	40- 80	45- 90	
Ore separators	37-100	20- 54	22- 60	
Ore sizers	10	200	224	
Ore skips (heavy buckets) ..	30	67	75	
Pans, agitator, amalgamating, clean up, or settler.	23- 50	40- 87	45- 97	
Pots, ladle, settling, or slag ..	35	57	64	
Vanning machine	35	57	64	
Vanning machine, rollers, iron or steel.	31	65	72	
Zinc lathes	16	125	140	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Osteopathic tables, adjustable..	17	118	132	Ship crated, 25 by 29 by 65 inches.
Outlet boxes, electric junction..	53	38	42	
Ovens:				
Drum.....	12	167	187	2½ cubic feet space each.
Electric.....	12	167	187	
Reel.....	7-50	40-286	45-320	Knocked down.
Stationary.....	6-18	111-333	124-357	Set up.
Do.....	10-50	40-200	45-224	Knocked down.
Oyster shells. See Sea shells.				
Oysters.....	90	22	24	1, 3, and 5 gallon tins and galvanized cans.
Packing:				
Asbestos, in rope or wick form.	50	40	45	
Manila rope, paper, glue, and glycerine.	67	30	33	
Wood-pulp fiber.....	45-65	31- 44	34- 50	
Pads, sweat or collar. See Sweat pads.				
Pails, fiber, nested.....	7- 9	222-286	249-320	Nested.
Palm:				
Flour.....	48	42	47	Bags, 1-300 pounds.
Kernels.....				Bags, 200 pounds.
Leaf mattress fiber.....	3.5	557	640	Bales.
Leaves.....				Bales, 375 pounds; cases, 350 pounds.
Paloja gum.....				Sugar barrels, 150 pounds.
Paper cups:				
Fiber board or pulpboard...	10-28	71-200	80-224	Folded.
Paper.....	6-11	182-333	204-373	
Paraffined.....	6-10	200-333	224-373	Nested.
Paper doilies and napkins.....	8-20	100-250	112-280	Bales.
Do.....	6-10	200-333	224-373	Boxes.
Paper fasteners, metal.....	36	56	62	Boxes, 23½ by 13½ by 10½ inches and 30 by 24 by 46 inches.
Paper-makers' felts.....	9	222	249	Bales of 1, 2, or 3 felts with 2 wrappers of paper and 1 of burlap, 36 by 27 by 18 inches.
Paper toweling. See Toweling.				
Paper twine.....	29	69	77	On reels in packages, 19 by 19 by 14 inches.
Paragol.....	60	33	37	Barrels, 355 pounds.
Paste:				
Adhesive.....	40	50	56	Metal cans; pails; barrels; boxes, 200-250 pounds.
Flour.....	43	47	52	Barrels, 29½ by 20 inches; kegs, 24 by 15 inches; cases, 19½ by 10½ by 10½ inches.
Library.....	40-50	40- 50	45- 56	Glass bottles, metal or tin cans, packed in boxes.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Paving blocks:	Pounds	Cubic feet	Cubic feet	
Asphalt.....	150	13	15	
Furnace slag.....	170	12	13	
Iron slag (scoria).....	170	12	13	Uniform standard-size blocks, 8 by 3.5 by 4 inches.
Paving cement.....	75	27	30	Barrels, 30-gallon.
Paving expansion joints.....	67	30	33	Boxes; bundles; crates.
Paving paper.....				Cylindrical bundles, 30 inches long, 8 inches diameter.
Peanut:				
Chaff from kernel.....	20	100	112	Pressed in bags.
Diggers.....	15	133	149	Total weight, 575 pounds.
Hearts or germ.....	20	100	112	
Kernels.....	40	50	56	Bags, 125 pounds; barrels, 225 pounds.
Meal.....	45- 56	36- 44	40- 50	Bags, 100-150 pounds.
Pearl shells, Australian.....	38	53	59	Cases, 18 by 18 by 42 inches.
Mother-of-pearl.....				Barrels, casks, cases, and sacks, 100-300 pounds.
Peavies.....	31	65	72	Crates; bundles.
Pectin.....	47	43	48	Metal cans; boxes.
Pencils.....	18- 54	37-111	42- 124	
Pencil slats.....	13	154	172	Wooden cases, 30 by 36 by 25 inches.
Pepper.....	28	71	80	Ground in boxes or barrels; whole in bags, 130 pounds.
Cayenne.....	18	111	124	Ground in boxes or barrels; whole in bags, 130 pounds.
Percolators.....	10	200	224	
Phosphate, acid.....	33	61	68	Bags, 167 pounds; bulk.
Rock.....	33	61	68	
Phosphor tin.....	458-600	3- 4.4	3.7- 4.9	Boxes; casks; barrels.
Phosphoric acid.....	70- 80	25- 29	28- 32	Casks, 540-560 pounds.
Photonegatives.....	150	13	15	
Photoprinting cabinets, electric.....	12	167	187	
Pig-toe nails.....	23- 25	80- 87	90- 97	Bags, 100-200 pounds.
Pike poles.....	20	100	112	Bundles, 3 or 6, usually 6; package of 6 is 4 by 6 inches by 14 feet.
Piles, sheet-steel. See Sheet pile castings.				
Pillows, shoddy.....	6- 10	200-333	224- 373	18 by 26 inches, compressed to $\frac{1}{2}$ thickness.
Pine tar. See Tar.				
Pins:				
Channel.....	200	10	11	
Common.....	40	50	56	3 $\frac{1}{2}$ cubic feet per case.
Safety. See Safety pins.				
Pintsch gas drips. See Gas drips.				
Pipe, cast-iron, porcelain-lined.....	40	50	56	Barrels, 300 pounds.
Pipe-fitting cement.....	45-140	14- 44	16- 50	Barrels, 350 pounds; sacks, 100 pounds; packages, 4 $\frac{3}{8}$ by 2 $\frac{3}{8}$ by $\frac{3}{4}$ inches; cases, 10 by 6 by 15.5 inches; 1, 5, 10, and 25 pound tin cans; kegs.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Pipe shell, wooden: ^a				
Lined—	Pounds	Cubic feet	Cubic feet	
Bore, 3 inches.....	21	95	107	
Bore, 3.5 inches.....	19	105	118	
Bore, 4 inches.....	19	105	118	
Bore, 4.5 inches.....	17	118	132	
Bore, 5 inches.....	16	125	140	
Bore, 5.5 inches.....	16	125	140	
Bore, 6 inches.....	16	125	140	
Bore, 7 inches.....	17	118	132	
Bore, 8.5 inches.....	15	133	149	
Bore, 9.5 inches.....	15	133	149	
Bore, 11 inches.....	13	154	172	
Bore, 12 inches.....	12	167	187	
Bore, 13 inches.....	11	182	204	
Bore, 15 inches.....	12	167	187	
Bore, 16.5 inches.....	9	222	249	
Bore, 17.5 inches.....	10	200	224	
Bore, 18.5 inches.....	11	182	204	
Bore, 21 inches.....	11	182	204	
Bore, 22.75 inches.....	11	182	204	
Bore, 25 inches.....	8	250	280	
Bore, 27 inches.....	8	250	280	
Unlined—				
Bore, 3 inches.....	19	105	118	
Bore, 3.5 inches.....	18	111	124	
Bore, 4 inches.....	16	125	140	
Bore, 4.5 inches.....	19	105	118	
Bore, 5 inches.....	17	118	132	
Bore, 6 inches.....	15	133	149	
Bore, 7 inches.....	15	133	149	
Bore, 8.5 inches.....	15	133	149	
Bore, 9.5 inches.....	12	167	187	
Bore, 11 inches.....	11	182	204	
Bore, 12 inches.....	9	222	249	
Bore, 13 inches.....	9	222	249	
Bore, 15 inches.....	8	250	280	
Bore, 17.5 inches.....	6	333	375	
Pipe tin.....				On reels of about 250 pounds; packed in small cases of 50 pounds.
Do.....	33	61	68	Coils, 6 by 24 inches.
Do.....	22	91	102	Coils, 7 by 26 by 26 inches.
Do.....	53	38	42	Coils, 6 by 36 by 36 inches.
Do.....	17	118	132	Casks, 39 by 46 inches.
Do.....	44	46	51	Boxes, 4 by 22 by 22 inches.
Do.....	30	67	75	Barrels, 31 by 19 inches diameter.
Do.....	38	53	59	Reels, 24 by 24 inches.
Do.....	40	50	56	Reels, 24 by 24 by 18 inches.
Pitch, coal tar.....	68-74	27-29	30-33	Barrels, 500-570 pounds.
Ground.....				Heavy jute bags, paper lined.
Plastering fiber, made from old rope.	13	154	172	

^a That can be loaded in a car 36 by 8.5 by 8 feet.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Platinized asbestos. See Asbestos platinized.				
Plugs.....	60	33	37	
Plum pudding.....	25-40	50- 80	56 -90	6-ounce and 1, 2, and 3 pound tin cans, boxed.
Pocketknives. See Machine-shop equipment.				
Polishing powder.....	27	75	83	Fiber-board packages, 17 by 11 by 11 inches.
Polo balls.....				Barrels, 120 pounds.
Polo sticks. See Sporting goods.				
Pomace.....	36	56	62	Bags, 100-200 pounds.
Pontianac gum resin.....	28-44	46- 72	51- 80	Bags, 125 pounds; barrels, sometimes open-topped.
Porcelain-lined cast-iron pipe. See Pipe, cast iron.				
Portable cooker. See Army range.				
Posts, lawn tennis.....				2 in a bundle, 5 by 6 inches by 6 feet.
Potash, balls.....	47	43	48	Boxes, 22 by 15 by 8 inches; 48 balls, packed in sawdust in box 21 by 16½ by 9½ inches.
Crude.....	65	31	34	Barrels, 600-800 pounds.
Potassium:				
Bichromate.....				Casks, 650 pounds.
Bromide.....	72	28	31	
Bromide crystals.....	89	22	25	
Chlorate.....	65	31	34	Wooden kegs with paper lining, 122 pounds; boxes, 8½ by 10½ by 16½ inches.
Chloride.....	60	33	37	Bags, 200 pounds.
Citrate.....	33	60	68	Boxes, 17½ by 16½ by 11½ inches; smaller boxes; bottles; cans.
Hartsalz.....	85	24	26	
Hydroxite.....				5 and 10 pound tin cans; sheet-iron cans, 25, 50, and 112 pounds; drums, 560 pounds.
Metallic.....				1 ounce to 1 pound bottles, packed in tin cans, containing whiting; cans are packed in excelsior, saturated with calcium chloride, in wooden boxes.
Sulphate.....	80	25	28	Bags, 200 pounds.
Potato:				
Chips.....	11	182	204	Cases, 12 cans, 18½ by 12½ by 16½ inches and 17½ by 13 by 13½ inches; cases, 36-4 ounce packages, 16 by 16½ by 12½ inches.
Flour. See Flour.				
Mashers, wire.....	35	57	64	1½ dozen in package occupies 1 cubic foot.
Parer.....	22	91	102	Crates, 53 by 21 by 29 inches.
Pouring brick. See Brick.				
Powder cans, empty.....	20	100	112	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Powdered milk. See Milk, powdered.	Pounds 9- 70	Cubic feet 29-222	Cubic feet 32-249	Sizes from 18 by 37 by 51 inches to 150 by 45 by 126 inches, crated.
Power trucks for transporting materials in and about ware- houses, etc.				
Printers' furniture, miscella- neous.	6- 13	154-333	172-373	
Quercitron bark extract.....				Barrels, 562 pounds.
Quicksilver. See Mercury.				
Quill fiber. See Featherbone fiber.				
Radiators, cast-iron.....	67	30	33	
Pressed-steel.....	25	80	90	
Radio clinte.....	100	20	22	
Raffia fiber.....	24	83	93	Compressed bales, 18 by 24 by 36 inches.
Rag pulp.....	25- 47	43- 80	48- 90	Barrels, 225 pounds, topped with paper and burlap securely tied; bundles, 100 pounds.
Rail bonds.....	125-130	15- 16	17- 18	
Ramie grass.....	51	39	44	Bales, 12½-16 cubic feet.
Ramie noils or tops.....	8	250	280	Cases, 3 by 2 by 5 feet; bags and compressed bales, 6 by 2 by 3 feet.
Rapeseed oil.....	58	35	39	
Rasps. See Machine - shop equipment.				
Rectifier bulbs.....	6	333	373	Slatted box.
Rennet extract.....	45	44	50	Barrels, 45-gallon; 5, 6, 10, and 12 gallon kegs.
Rennets.....	20- 45	44-100	50-112	Cases and barrels.
Repair kits. See Tire-repair kits.				
Replacers, car and locomotive...	50- 60	33- 40	37- 45	Each about 200 pounds.
Resin. See Guayule resin grease; Pontianac gum resin.				
Retarder, plaster or stucco.....	50	40	45	
Rheostats.....	25	80	90	
Rice:				
Bran.....				Bags, 100-150 pounds.
Broken, or rice screening.....				Bags, 100-240 pounds.
Chaff.....				Bags, 50 pounds.
Cleaned.....				Bags, 100-240 pounds.
Flour.....				Jute sacks, 280 pounds.
Do.....	23	87	97	12 cartons in containers, 11 by 11 by 13 inches; 24 cartons in contain- ers, 12.5 by 9.5 by 14 inches.
Hulls.....				Bags, 125-150 pounds.
Meal.....				Bags, 100-200 pounds.
Polish.....				Do.
Rough.....				Bags, 180 pounds.
Rims, steel, emergency. See Autowheel parts.				
Rivets, brass, bronze, copper....	75	27	30	1-pound package in cases, 10 by 12 by 20 inches.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Rock candy sugar. See Sugar.				
Rock salt. See Salt.				
Rolling chairs. See Chairs.	Pounds	Cubic feet	Cubic feet	
Roof trimmings, or gutterings...	35	57	64	
Roofing:				
Composition and prepared..	50	40	45	Rolls, 36 inches long.
Iron or steel, asbestos, and asphalt.	22	91	102	
Slate. See Slate roofing.				
Roofing cement, dry or liquid...	70-75	27- 29	30- 32	Barrels; kegs; tin kegs; package, 350 pounds.
Rosin.....	63-67	30- 32	33- 36	Wooden barrels, 36-38 inches high, 24-26 inches diameter.
Rowboats, not nested.....	1- 1.5			
Steel.....	2- 4	500-1000	560-1120	
Rubber:				
Cement.....	32-56	36- 63	40- 70	Barrels, 50 gallons; cans, packed in wooden boxes.
Crude.....	38	53	59	All sizes of packages.
Glass.....	20	100	112	Rolls between corrugated paper, 38 inches wide, 60 inches long; wooden cases, 14 by 17 by 17 inches.
Scrap.....	15	133	149	Bales.
Tire-applying outfit.....	38	53	59	
Tire filling.....	43-60	33- 47	37- 52	Boxes; tubes; tin cans; jacketed tin cans; bags.
Tubing.....	10-35	57- 200	64- 224	Cardboard containers boxed.
Rubber boots and shoes: ^a				
"Arctics"—				
Bulk—				
Child's.....	24	83	93	Cases, 16.5 by 9.4 by 6.5 inches.
Men's.....	19	105	118	Cases, 23.5 by 13.8 by 10 inches.
Women's.....	17	118	132	Cases, 21.5 by 12.4 by 8 inches.
Cartons—				
Child's.....	12	167	187	Cases, 20.8 by 12.1 by 11.5 inches.
Men's.....	12	167	187	Cases, 26.5 by 13.9 by 13 inches.
Women's.....	12	167	187	Cases, 22.8 by 13.1 by 12.5 inches.
Boots—Men's.....	20	100	112	Cases, 32 by 14.5 by 18.5 inches to 26.5 by 13.5 by 15.5 inches.
"Eversticks"—				
Men's.....	11	182	204	Cases, 31.8 by 19 by 13.5 inches.
Women's.....	9	222	249	Cases, 31.5 by 15.4 by 12.5 inches.
Shoes—				
Bulk—				
Child's.....	16	125	140	Cases, 18.5 by 11.4 by 18.5 inches.
Men's.....	15	133	149	Cases, 27 by 14.9 by 12 inches.
Women's.....	15	133	149	Cases, 24.5 by 12.9 by 10 inches.
Cartons—				
Child's.....	14	143	160	Cases, 26.5 by 13.4 by 9 inches.
Men's.....	11	182	204	Cases, 31.8 by 18.9 by 13.5 inches.
Women's.....	11	182	204	Cases, 31.5 by 15.4 by 12.5 inches.

^a "Arctics" and boots are packed 12 pairs to a case; "Eversticks" and shoes are packed 24 pairs to a case.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Rubbing stones.....				Brick shaped, each 16 ounces; 100 stones per box, weight 135 pounds.
Rules. See Machine - shop equipment				
Safety pins.....	20	100	112	Packages, 3.72 cubic feet.
Salt:				
Block.....	78	26	29	Blocks, 0.64 cubic foot.
Celery.....	27- 34	59- 74	66- 83	
Lump rocksalt for live stock.	114	18	20	Bulk.
Salt bricks, medicated.....	74	27	30	Cases, 30 bricks.
Plain.....	70	29	32	Do.
Sand asbestos. See Asbestos.				
Sand whetstones. See Whetstones.				
Sandarac gum.....				Barrels and cases, 150-300 pounds.
Sandpaper. See Abrasive paper.				
Sash, steel bar.....	25- 40	50- 80	56- 90	
Saws, barrel or bilge.....	26	77	86	
Scrap asbestos. See Asbestos.				
Scrapple.....				Cases, 10 by 16 by 12 inches to 14 by 19 by 8.5 inches.
Screens, coal, gravel, sand.....	9- 12	167-222	187-249	
Shaking.....	11- 14	143-182	160-204	
Screws.....	100	20	22	Paper boxes packed in wooden cases; in bulk in wooden cases.
Sea grass.....	13- 30	67-154	75-172	Bales, 13 by 26 by 36 inches to 18 by 48 by 60 inches; sugar barrels.
Sea shells, oyster and mother-of-pearl.	70-100	20- 29	22- 32	Cases, 16 by 16 by 36 inches; sugar barrels; potato bags.
Rough or natural scallop....	30	67	75	Barrels; casks; boxes, 3 feet square.
Sensitized paper ashes.....	74	27	30	Iron drums, 47 by 29 by 29 inches.
Septic tanks.....	140	14	16	
Shades, porch.....	13	154	172	
Sheep sets.....	40	50	56	
Sheepskins.....				In bundles, 6-12 skins, laid flat.
Sheet iron, aluminum coated...	360	5.6	6.2	Crated; bundles, 160 pounds.
Sheet lead. See Lead.				
Shellac gum.....				Bags and cases, 150 pounds.
Shells. See Clamshells; Oyster shells; Pearl shells; Sea shells.				
Shelves, oven, rack, or refrigerator.	40- 50	40- 50	45- 56	
Sherardizing zinc.....	200	10	11	Secondhand whisky barrels, 1300-1375 pounds.
Shingles, metal.....	49- 58	35- 41	39- 46	Boxes, 20 by 15 by 10 inches; each box contains a square, or 100 square feet, of shingles, as laid on the roof.
Shock absorbers, automobile ...	41-116	17- 49	19- 52	Boxed.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Shoddy cloth.....				Bales, 200-500 pounds; goods 72 inches wide, folded double, making pieces 36 inches wide.
Shoe:				
Dressing, liquid	27- 38	53- 74	59- 83	1 dozen bottles, in corrugated partitioned box; 6 dozen in a wooden box.
Findings, crimped in heel shape.	250	8	9	Boxes.
Lasts, made of aluminum...	21	95	107	Bags.
Scraper and bench combined.	14	143	160	
Shoes:				
Child's, 36 pairs.....	13	154	172	Cases, 10 by 17 by 38 inches.
Ladies', 36 pairs.....	14	143	160	Cases, 13 by 17.5 by 46 inches.
Men's, 12 pairs.....	13	154	172	Cases, 14 by 13 by 26.5 inches and 28.2 by 13 by 13.2 inches.
Men's, 24 pairs.....	14	143	160	Cases, 14 by 20 by 37.5 inches and 32.5 by 19.6 by 13.2 inches.
Men's, 36 pairs.....	16	125	140	Cases, 36.5 by 26.1 by 13.2 inches.
Misses', 36 pairs.....	13	154	172	Cases, 11 by 17.5 by 40.5 inches.
Shot chilled, cast iron.....	200-270	7.4- 10	8.3- 11.4	Double bags, 100 pounds.
Sieves.....	4	500	560	Not nested.
Silex.....	170	12	13	Cases, 2.5 cubic feet.
Silica, or flint.....	86	23	26	Casks; bags; barrels, 24 by 30 inches.
Silica, or silicon oxide.....	40- 75	27- 50	30- 56	Bags, 250 pounds; barrels, 250-350 pounds.
Silicon carbide.....	100	20	22	Barrels, 550 pounds; kegs, 200 pounds.
Silk waste.....	10	200	224	Compressed bales, 4 feet square.
Silver wire. See Wire.				
Sizing.....	65	31	34	
Slate:				
Marbleized mantels, game boards, wainscoting, etc.	100	20	22	Securely crated, in packages of various dimensions.
Pencils.....	59- 81	25- 34	28- 38	Cases, 10 000 pencils in cases 10 by 12 by 32 inches.
Roofing.....				Crates, 200 pounds each; weighs 600 pounds to the 100 square feet.
Used for pavement, etc.....	170	12	13	
Sleeve protectors, straw cuffs...	12	170	187	Case, 500 pairs.
Sloe berries.....				Sacks, 160 pounds.
Sluge acid.....	112	18	20	Tank cars.
Smoke - flue cleaning compounds.	46	44	49	Barrels; boxes.
Smokestack collars, made of 16-20 gage sheet iron.	16	125	140	Usually shipped in halves, 3-8 feet diameter, 12 inches high; nested.
Soap:				
Castile.....	54	37	41	1 gross small cakes to case 7 by 13 by 19 inches.
Common, or laundry.....	50	40	45	Wooden boxes.
Flake or chips.....	31- 35	57- 65	64- 72	Barrels and cases.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Soap—Continued.	Pounds	Cubic feet	Cubic feet	
Linseed oil.....	65	31	34	Barrels; kits; cans.
Liquid.....	55- 60	33- 36	37- 41	Barrels; drums; tins, boxed.
Soap or washing powder....	40	50	56	Cartons packed in wooden boxes; in barrels, in bulk.
Washing or scouring com- pound.	64	31	35	Barrels, 325 pounds
Soap griddles. See Griddles, soapstone.				
Sockets, lamp. See Lamp sockets.				
Sodium:				
Aluminum sulphate.....				Sugar barrels.
Antimoniate.....	109	18	20	Kegs; barrels; casks, 32.5 inches high and 23.5 inches diameter.
Bicarbonate.....				Cases, 60 pounds; k eggs, 112 pounds; bags, 200-400 pounds; sometimes carload shipments in bulk.
Bromide.....	96	21	23	
Chlorate.....				Kegs, 120-125 pounds.
Fluoride.....				Sugar barrels.
Hypsulphite.....	52	38	43	Barrels, 400 pounds; kegs, 111 pounds; cases, 115 pounds; drums, 108 pounds; bags, 100- 200-300 pounds; boxes, 21.5 by 16.5 by 11 inches; 31 per cent shipped in barrels, 56 per cent in bags, and 20 per cent in wooden drums.
Metallic.....	43	46	52	Steel drums, 20 inches diameter, 22-34 inches high.
Nitrate.....				Bags, 200 pounds.
Nitrite.....	60- 68	29- 33	33- 37	Barrels, 300-500 pounds; casks, 377 pounds.
Peroxide.....				Drums, 380 pounds net.
Silicate.....	86	23	26	
Silico fluoride.....	69	29	32	Bags, 220 pounds.
Trisodium phosphate.....	55	36	41	
Soil-insulating compounds.....	35	57	64	
Solder.....	582	3.4	3.9	In loose slabs, over 30 pounds each.
Soldering furnaces. See fur- naces.				
Soot-removing compounds.....	46	43	49	Corrugated cases, 14 by 15 by 11 inches.
Sorghum.....				Same density and shipping char- acteristics as corn sirup.
Sound-deadening or joist chair.	30- 65	31- 67	34- 75	Plate iron chair or socket with a groove containing a felt pad.
Sounding machines, navigation.	31	65	72	
Spark plugs.....	50	40	45	Packages, 36 by 17 by 14 inches.
Spikes, railroad track.....				Kegs, 200 pounds, all spikes, base, $\frac{1}{16}$ by 4½ inches and heavier.
Sponge clippings, or waste.....	10- 40	50-200	45-224	Bales, 250-500 pounds; density varies according to dampness and pressure.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Sponge waste.....	Pounds 12- 15	Cubic feet 133-167	Cubic feet 149-187	Bales, 400-600 pounds.
Sporting goods:				
Baseball, cheap varieties....	28	71	80	Box, 72 dozen, 24 by 27½ by 37½ inches.
Bases.....	18	111	124	Wrapped in paper, packed in boxes, 13.5 by 13.5 by 14.5 inches.
Bats, hardwood.....	25	80	90	Crates, 17½ by 7½ by 33½ inches.
Willow.....	32	63	70	Crates, 14 by 5 by 38½ inches.
Masks.....	6.5	308	345	Pasteboard boxes, 12, 6, 3, or 1 to a box.
Professional.....	26	77	86	Box, 60 dozen, 20 by 32 by 40 inches.
Boxing gloves.....				Pasteboard cartons containing 4 gloves, 4 dozen in a case; weight, 185 pounds.
Hockey sticks.....	23	87	97	Cases, 19 by 19½ by 79 inches.
Polo sticks.....	30	67	75	Cases, 9½ by 15 by 49 inches.
Spring wagon bodies. See Vehicle bodies.				
Springs:				
Carriage or wagon.....				15-200 pounds each.
Door.....	60- 70	28- 33	32- 37	Barrels; boxes, 10 by 20 by 14 inches and 13 by 18 by 8 inches.
Elliptical carriage springs...				3-4 feet long, 20-150 pounds each.
Furniture.....	15	133	149	Compressed bundles, 15 by 18 by 10 inches.
Sprocket chains.....	100-150	13- 20	15- 22	Cases, 31 by 9 by 7.5 inches; boxes and bundles.
Spruce gum.....				Flour barrels; bags; boxes.
Stalls, stanchions.....	6	333	373	Knocked down; crates, 4 feet 6 inches by 2 feet 6 inches by 4 feet 2 inches.
Starch.....	52	38	43	Barrels, 29½ inches high, 23½ inches in diameter; bags, 100-140-280 pounds.
Corn.....	52	38	43	Barrels, 220-260 pounds; bags, 225-240 pounds; boxes, 15-78 pounds; containers, 21-48 pounds; crates, 101 pounds.
Laundry.....	42	48	53	Same as cornstarch.
Starters for automobiles.....	35	57	64	
Steam radiators. See Radiators.				
Steam-shovel dipper handles...	150-190	11- 13	12- 15	12-55 feet long.
Stearic acid.....	52	38	43	Sugar barrels; density varies.
Stearine, coconut.....	62	32	36	Cases, 8 cakes each, 16 by 16 by 12½ inches; packages, 16 by 17 by 20 inches.
Steel:				
Cleaning compound.....	53	38	42	
Crushed.....	200	10	11	Bags, 100 pounds.
Launch hulls. See Boat parts.				
Sheet, pile castings.....	7	286	320	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Steering-wheel rims.....	13	154	172	Crates, 25-30 rims; average, 42 inches long, 18 inches diameter.
Stenographers' or typewriters' chairs. See Chairs.				
Stepladders.....	28	71	80	
Stereotype bases.....	100	20	22	
Sterilizers:				
Dressing—				
Large size.....	20	100	112	Crate containing apparatus, 51 by 55 by 37 inches.
Do.....	6	333	373	Crate containing stand, 40 by 31 by 30 inches.
Medium size.....	20	100	112	Crate containing apparatus, 44 by 40 by 28 inches.
Do.....	6	333	373	Crate containing stand, 33 by 31 by 25 inches.
Small size.....	23	87	98	Crate containing apparatus, 37 by 30 by 20 inches.
Do.....	10	200	224	Crate containing stand, 14 by 34 by 22 inches.
Instrument—				
Large size.....	21	95	107	Box, 24 by 12 by 36 inches.
Small size.....	35	57	64	Box, 26 by 16 by 36 inches.
Utensil.....	11	189	204	Crate, 43 by 32 by 29 inches.
Water—				
Large size.....	14	143	160	2 cases, 42 by 22 by 22 inches; 1 case, 33 by 19 by 16 inches, containing tanks and fittings.
Do.....	12	167	187	2 crates, 44 by 25 by 25 inches, containing stands.
Small size.....	17	118	132	2 cases, 38 by 19 by 19 inches; 1 case, 33 by 19 by 16 inches, containing tanks and fittings.
Do.....	12	167	187	2 crates, 44 by 22 by 22 inches, containing stands.
Stick lac gums. See Shellac.				
Stones, made of clay, used in annealing ovens in glass factories.	125-130	15- 16	17- 18	
Stone crusher and elevator combined.	15- 25	80-133	90-149	
Stopper heads or sleeves.....	90	22	25	Device used in foundries for handling hot metal.
Stoppers, lavatories, etc.....	35-40	50- 57	56- 64	
Storm aprons, vehicles.....	24	83	93	Boxes, 16½ by 15½ by 55 inches.
Stove mats, asbestos.....	26	77	86	Cases; crates; boxes.
Stoves, electric:				
Disk heaters.....	35	57	64	
Electric stoves.....	5-35	57-400	64-448	
Hot plates.....	19	105	118	
Radiators.....	13-18	111-154	124-172	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Stovepipe:	Pounds	Cubic feet	Cubic feet	
Drums or radiators.....	6	333	373	Packages, 12 by 12 by 36 inches.
Thimbles.....				Barrels, 180 pounds.
Straightedges, metal.....	59	34	38	
Straw braid.....	10-20	100-200	112-224	Bales; boxes; packages, 480-1,000 pieces.
Straw cuffs.....	12	167	187	Case containing 500 pairs.
Stretchers (see also Litters):				
Folding collapsible frame and canvas top, for ambu- lance and Army use.	41	49	55	Folded and wrapped in bundles, 10 by 10 by 72 inches.
Other than wheeled, col- lapsible.				4½ pounds each.
Wheeled.....	8-11	189-250	204-280	Knocked down.
Strontium:				
Bromide.....	59	34	38	Tins, 19 by 13½ by 13½ inches.
Carbonate.....	20-50	40-100	45-112	Casks, 38 inches high, 26 inches diameter; kegs, 100-200 pounds.
Nitrate.....	73	27	31	Cartons, cork-stopped bottles, jars, paper bags in cases; boxes; kegs.
Sugar: ^a				
Beet.....	50-60	33- 40	37- 45	Cotton-lined burlap bags, 100 pounds.
Do.....	41	48	54	Sugar barrels.
Cane, refined.....	57	35	39	Barrels; ¾ barrels; ½ barrels; bags, 100 pounds; cases, 120 pounds.
Clarifier.....	47-80	25- 43	28- 48	
Corn cakes or chips.....	51-85	24- 39	27- 44	Bags, 112 pounds; barrels, 29½ inches high, 23.5 inches diameter.
Corn sugar bread.....	51	39	44	Do.
Cubes.....	47	43	48	Bags, 191 pounds; barrels; cases, 23 by 15 by 14 inches.
Flavored with spices.....	28	71	80	5.5 ounces fiber cans, with metal top, 24 to a box, 10 by 7½ by 9 inches.
Invert.....	9.3	215	241	53-gallon barrels.
Maple.....	69	29	33	Bags, 27 by 15 by 6½ inches; tubs, 40-60 pounds.
Rock candy.....	53	38	42	Sugar barrels; cases, 35 by 20 by 21 inches.
Tanner's corn.....	85	24	27	Same as corn sugar, but sometimes in 100-pound slabs.
Sulphite liquor, pitch or cell liquor.	80	25	28	In molasses or oil barrels; in tank cars.
Sulphur: ^b				
Black.....	90	22	25	50-gallon barrels.
Chloride.....	c 1.7			Carboys.
Dioxide.....				Steel cylinders, 321 pounds; small cylinders, 20 pounds.

^a Average sugar barrel contains 5.82 cubic feet, but on account of its shape occupies 8.03 cubic feet in a car.

^b Imported from Japan in "Chinese mats," grass mats tied with grass rope, refined at seaboard and shipped to interior in 100-110 pound sacks.

^c Specific gravity.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Sulphuric acid.....				Carboys, 270 pounds, 60° B.; car- boys, 280 pounds, 68° B.
Sumac, extract.....				Barrels, 550 pounds.
Surgical operating chairs. See Chairs.				
Supplies, throat-swab ap- plicators.	28	71	80	
Tongue-depressing blades..	32	62	70	
Sweat or collar pads.....	12	167	187	In bales in burlap bags, 18 by 21 by 24 inches.
Swinging couch hammocks. See Hammocks.				
Sylvinit, double manure salts...	80	25	28	Bags, 200 pounds.
Hard, or manure, salts.....	85	24	26	Do.
Table covers or pads, asbestos. See Asbestos.				
Tops, enameled steel.....	22- 25	80- 91	90-102	
Tacks:				
Brass-head upholstery.....	41	49	55	Paper boxes, packed in wood or fiber boxes.
Copper.....	90	22	25	Boxes; kegs; cartons packed in boxes.
Double-pointed shade or carpet.	20	100	112	Boxes; kegs.
Iron or steel.....	109	18	21	Cartons packed in boxes; standard nail kegs.
Tallow, vegetable.....	58	34	39	In mats or wrapped in burlap, bound with rope.
Oil. See Oil, tallow.				
Tank heaters.....	16- 75	27-125	30-140	
Wagons. See Wagons.				
Tankage.....	40	50	56	
Tanks, copper, water-closet....	14	143	160	
Tanning extract:				
Algarobilla.....				Bags, 160 pounds.
Black oak bark.....	69	29	32	Wooden, paper-lined boxes, 17 by 11 by 9 inches, and 18 by 15 by 11 inches.
Mangrove.....	22	91	102	Bags, 10 cubic feet.
Myrobalan beans.....	22	91	102	Bags, 7½ cubic feet.
Valonea.....	15	133	149	Bags, 9½ cubic feet.
Tape, insulating.....	38- 42	48- 53	53 -59	
Tapioca.....	43	47	52	Bags.
Tar.....	70	29	32	Barrels, 500-600 pounds; metal cans boxed.
Pine.....	64	31	35	
Teasels.....	6	333	373	Cases, 72 by 48 by 56 inches; weight, 10 pounds per thousand.
Telephone:				
Cable, lead-covered, with jacks attached.	20	100	112	Package, 44 by 44 by 23 inches.
Jacks.....	20	100	112	
Transformers, or loading coils.	60	33	37	Average weight, 111 pounds.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Tent equipment:	Pounds	Cubic feet	Cubic feet	
Pins, aluminum	55	36	41	Boxes, 11 by 20½ by 8 inches.
Poles, hard wood	20	100	112	Bundles, 6 pieces, 6 by 6 by 96 inches.
Pine	35	57	64	Bundles, 2 pieces, 4 by 4 by 144 inches.
Slides or keys to tighten guy ropes.	15	133	149	700 keys in heavy burlap bags, 15 by 15 by 32 inches.
Stakes, hard maple	36	55	62	Wired together in bundles of 50-200 pins.
Tripods for conical tents	50	40	45	
Tetrachlorethane	89	22	25	10-gallon, 12-gauge galvanized-iron drums; 50-gallon drums, 38 inches high, 25½ inches diameter; 100-gallon drums, 41½ inches high, 33½ inches diameter.
Thorium nitrate	9	222	249	Heavy glass bottles, packed in excelsior and packed in wooden boxes, 10 bottles in a case, 49 by 27 by 27 inches.
Thus, white turpentine				Barrels, 500 pounds.
Ties, railroad	109-214	9- 18	10- 20	Standard sizes, 7 feet by 8 inches by 8 inches and 7 feet by 6 inches by 8 inches.
Tile:				
Clay	82- 96	21- 24	23- 27	9-inch tile, crate, 25 by 11 by 11 inches; 6-inch tile, crate, 23 by 13 by 17 inches.
Flooring—				
Composition	280	7	8	
Rubber tile	139	14	16	
Wainscoting	256	8	9	Barrels; boxes.
Tire:				
Bands	25- 40	50- 80	56- 90	
Chains	82	24	27	Flour barrels; 30 pairs per barrel.
Filler, rubber	60	33	37	
Flanges.				
Reeliners	27	74	83	
Repair kits				Varying number of kits, size 8 by 3 by 3 inches, packed in one large wooden box.
Tires:				
Pneumatic	7- 12	167-286	187-320	
Solid	33- 58	34- 60	39- 68	
Toasters, asbestos	44- 60	33- 45	37- 51	Cases; crates; boxes.
Tobacco extract	56	36	40	
Toilet powder	28	71	80	Cases, 18½ by 18½ by 32 inches.
Do	32	63	70	Cases, 19½ by 10½ by 31 inches.
Do	30	67	75	Tins and strawboard boxes.
Toluol and xylol	65- 70	29- 31	32- 34	1-2-10 gallon tin cans, jacketed; drums, 42 by 31½ inches and 35½ by 25 inches.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Torpedoes, shipped in 3 sections: ^a				
After body.....	Pounds 26	Cubic feet 77	Cubic feet 86	Over all, but unboxed, 24 by 24 by 88 inches.
Flask.....	30	67	75	Over all, but unboxed, 24 by 24 by 112 inches.
Head.....	18	111	124	Over all, but unboxed, 22 by 22 by 38 inches.
Tow yarn. See Yarn.				
Toweling.....	10- 20	100-200	112-224	Cases, 32 by 29 by 27 inches; containers, 31½ by 30½ by 24 inches.
Tractors, caterpillar. See Caterpillar tractors.				
Tragacanth gum.....				Bags and cases, 150-200 pounds.
Tragasol.....				Barrels, 450 pounds.
Trailer trucks. See Automobile Appendix.				
Transformer cooling coils, copper	30	67	75	Weight, 200-500 pounds.
Transformers, telephone.....	55	36	41	
Trichlorethylene.....	73	27	31	10-gallon, 12-guage, galvanized-iron drums; 50-gallon drums, 39 inches high, 26 inches diameter; 100-gallon drums, 41 inches high, 33½ inches diameter.
Trinitrotoluol.....	78	26	29	Iron drums, 4? by 40 inches.
Tripods, rock drill.....	25	80	90	Weight, 80-300 pounds.
Tripoli.....	73	27	31	Paper-lined sacks.
Lump form.....	65- 70	29- 31	32- 34	
Trolley hasps.....	50- 90	22- 40	25- 45	
Troughs, feeding or watering...	18	111	124	
Troughs and tanks, combined, iron or steel.	8- 12	168-250	187-280	
Truck gears. See Wagon gears.				
Truck wheels, all steel.....	23- 30	67- 87	75- 98	Shipped loose; average weight, 70 pounds; 4-inch tire.
Trucks. See Hand trucks.				
Try squares. See Machine-shop equipment.				
Tungsten metal in powdered form.	205	10	11	Sheet-iron boxes in wooden cases, 8½ by 7 by 13½ inches and 11½ by 8 by 15 inches.
Tungsten oxide or acid.....	100	20	22	In 50-100 pound kegs.
Turpentine cup aprons, galvanized iron.	74-160-200	10- 12- 27	11- 14- 30	Flat or nested.
Turpentine, white. See Thus.				
Twine, paper.....	37	54	61	Reels, 19 by 19 by 14 inches.
Ultramarine blue, in balls.....	33	61	68	Flour barrels.
In packages.....	39	51	57	Package, 15½ by 15½ by 9 inches; crates, 6 or 12 boxes.
Valonea. See Tanning extract.				

^a Typical torpedo is 17 feet long, 1½ feet diameter; total weight 2,108 pounds. Never shipped containing the explosive.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Valves of brass, etc.....	100-125	16- 20	18- 22	In packages of many sizes.
Do.....	80	25	28	In boxes.
Do.....	76	26	29	In barrels.
Vegetable ivory scrap. See Palm flour.				
Vegetables. See Appendix No. 2.				
Vehicle parts:				
Arm rails.....	70-100	20- 29	22- 32	
Axle chips.....	80-150	13- 25	15- 28	
Axle couplings.....	80-100	20- 25	22- 28	Boxes, 200-500 pounds.
Bodies—				
Buggy.....	1- 6	333-2000	373-2240	1 set up and crated, 24-30 by 56-64 by 12-16 inches; 5-10 in a crate usually.
Carriage or surrey.....	4- 6	333- 500	373- 560	Set up and crated, 30-36 by 64-72 by 14-18 inches.
Do.....	3- 4	500- 667	560- 747	Knocked down and 2 bodies crated, 36-46 by 72-96 by 14 inches.
Convertible wagon beds.	14- 16	125- 143	140- 160	Total displacement, 44-48 cubic feet.
Farm wagon.....				Sides crated together, end gates bundled, 10 feet 6 inches long, 30 inches wide; average weight, 300 pounds.
Laundry, grocery, etc., for use on Ford run- ning gears.	2	1000	1120	Crated, 5 by 5 feet by 8 feet 6 inches.
Spring wagon.....	5- 7	286- 400	320- 450	Set up and crated, 34 by 80-90 by 7-8 inches.
Bolster plates.....	150-170	12- 13	13- 15	Bundles and bags, 45-195 pounds; barrels, 400-450 pounds.
Standards.....	170	12	13	Boxes and bundles, 100-1000 pounds.
Bow sockets used for buggy tops.	40- 60	33- 50	27- 56	Boxes, average 36 by 24 by 9 inches.
Brake parts.....	50- 60	33- 40	27- 45	
Buggy valances.....	18- 20	100- 111	112- 124	
Carriage dashes.....	35- 52	38- 57	43- 64	
End straps for singletrees...	80	25	28	Barrels, 570 pounds; bags; weight, $\frac{3}{4}$ pound each.
Evener plates.....	280-350	6- 7	6- 8	Bags up to 250 pounds; packages 1200 pounds; weight, $\frac{1}{2}$ pound each.
Felly irons.....	80- 91	22- 25	25- 28	Kegs; barrels; 300 pounds.
Fellies for vehicle wheels...	30- 60	33- 67	27- 75	Crates, 10-15 cubic feet.
Fifth wheel.....				Sugar or cracker barrels, 175-275 pounds.
Gate rods.....	90-120	17- 22	19- 25	Bundles, 36-50 pounds.
Hammer straps.....	100-260	8- 20	9- 22	Bags, 200 pounds; barrels, 4-600 pounds.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Neck yoke—	Pounds	Cubic feet	Cubic feet	
Centers.....	130	15	17	
End irons.....	105	19	21	
Irons.....	168	12	13	Barrels.
Pole caps.....	40- 60	33- 50	27- 56	
Poles, vehicle—				
Carriage, hickory.....				1½ by 2-2 by 3 inches and 12 feet long. Shipped 4-6 in a bundle.
Towing, steel.....				2 inches diameter, 66 inches long; weight, 25 pounds.
Wagon, oak or ash.....				2 by 4½-3 by 7 inches and 12-13 feet long. Shipped 2 in a bundle.
Reach or coupling plates...	320	6	7	Barrels, 320 pounds; bags, 250 pounds; kegs, 80 pounds; weight, ½ pound each.
Rub irons.....	120-150	13- 17	15- 19	Barrels, 400-750 pounds; bags, 250 pounds; kegs, 180 pounds; weight, 2 pounds each.
Seat hooks for wagon seats..	80-120	17- 25	19- 28	Barrels, 400-480 pounds; bags, 250- 380 pounds.
Shifting rails.....	25- 40	50- 80	56- 90	
Singletree hooks.....	70-150	13- 29	15- 32	Barrels, 400 pounds; bags, 200-250 pounds.
Spokes.....	30- 34	59- 67	66- 75	Bundles crated, 10-15 cubic feet; bags, 50-100 pounds.
Storm shields.....	3.5	552	640	
Tongue plates.....	322-350	5.5- 6	6.4- 7	Bags, 100-250 pounds; packages, up to 1200 pounds; weight, ¾ pound each.
Top joints.....	60- 75	27- 33	30- 37	
Wagon awnings or covers...	8	250	280	2.5 by 2.5 by 4 feet, packages.
Vellumoid, a sheet packing for pumps and engines.	67	30	33	Rolls; bundles; crates; boxes; usual package weight, 100 pounds.
Vinegar.....	40- 63	32- 50	36- 56	½-4' dozen jugs or glass containers, boxed or packed in fiber-board boxes or sugar barrels; barrels; half barrels; casks; tank cars.
Vulcanizing compounds.....	72	28	31	5-gallon cans.
Wagon and carriage springs.....				15-200 pounds each.
Wagon and truck gears:				
Bundle whiffletrees and and neck yoke, 1.	22	91	102	Dimensions, 78 by 5 by 9 inches
Extra stakes, 4.....	30	67	75	Dimensions, 22 by 3 by 4 inches
Front bolster, 1.....	7	286	320	Dimensions, 48 by 18 by 13 inches.
Front gear, 1.....	7	286	320	Dimensions, 68 by 12 by 45 inches.
Front wheels, 2.....	7	286	320	Dimensions, 41 by 41 by 13 inches.
Hind gear, 1.....	3	667	747	Dimensions, 68 by 24 by 48 inches.
Hind wheels, 2.....	6	333	373	Dimensions, 45 by 45 by 13 inches.
Pole, 1.....	5	400	448	Dimensions, 133 by 6 by 20 inches.
Reach, 1.....	50	40	45	Dimensions, 111 by 2 by 4 inches.

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment		
Wagon:						
Awnings. See Awnings. Axles. See Axles. Bodies. See Vehicle bod- ies. Carriage, and auto bows....	Pounds 6- 7	Cubic feet 286-333	Cubic feet 320-373	Knocked down. In bundles of varying dimensions.		
Covers. See Awnings. Poles. See Vehicle poles. Springs, elliptical.....				3-4 feet long; weight, 20-150 pounds each; 18-60 inches long; weight, 10-90 pounds each.		
Springs, seat.....				Bundles or loose; weight, 11-12 pounds per pair.		
Wheels.....	9- 11	182-222	204-249	1 or 2 in a bundle.		
Wheels, auto	11	182	204	Packed flat and crated hub to hub.		
Do.....	28	72	80	Nested together in car.		
Wheels, tires $\frac{3}{8}$ inch thick—						
	Width of tire (inches)					
	2	3	3.5	4	5	6
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
20-inch wheel weighs...	47	53	56	59	65	71
22-inch wheel weighs...	49	56	60	63	70	77
24-inch wheel weighs...	51	59	63	67	75	83
26-inch wheel weighs...	53	62	67	71	80	89
28-inch wheel weighs...	55	65	70	75	85	95
30-inch wheel weighs...	59	69	74	79	89	99
32-inch wheel weighs...	61	71	76	81	91	101
34-inch wheel weighs...	67	78	84	89	100	111
36-inch wheel weighs...	70	81	87	92	103	114
38-inch wheel weighs...	76	88	94	100	112	124
40-inch wheel weighs...	79	92	101	109	118	131
42-inch wheel weighs...	81	98	106	113	123	137
44-inch wheel weighs...	88	103	110	117	131	145

^a Weighs, complete, 1246 pounds.

Table of Unit Displacement of Commodities—Continued.

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment	
Wagons—Continued.					
Average wagon consists of—Continued.	Pounds	Cubic feet	Cubic feet		
Hind gear and brake, 1.				Weights 200 pounds.	
Seat, 1.				Weights 34 pounds.	
Tongue, 1.				Weights 46 pounds.	
Wheels, 4.				Weights 100 pounds each.	
Dump.....	5.4- 8	250-371	280-415	Knocked down. From 44 inches wide, 10 feet long, bed to 5 feet by 4 feet 6 inches by 12 feet.	
Do.....	22	91	102	Accessory parts packed in wagon box, 11 feet 6 inches by 46 by 25.5 inches.	
Dump, 1-horse, 2-wheeled.	10	200	224	Requires 66 cubic feet.	
Farm.....	6- 16	125-333	140-373	Knocked down, small parts boxed; rest in bundles wired together. Requires from 110-125 cubic feet.	
	Length in feet	Diameter in inches	Gage steel	Capacity in gallons	Weight in pounds
Tank—					
Oil.....	6	17.5	16	72	85
Do.....	6	24.5	16	142	125
Do.....	8	24.5	16	190	155
Do.....	8	30	14	290	255
Do.....	8	34.5	12	380	410
Do.....	10	34.5	12	500	500
Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment	
	Pounds	Cubic feet	Cubic feet		
Street flushers.....	6	333	373	Require 676 cubic feet.	
Street sprinklers.....	5	400	450	Require 576 cubic feet.	
Wall paper.....	22	91	102		
Wardrobes.....	7- 12	167-286	187-320	Crated.	
Washers, brass and copper, for riveting.	151	13	15	Barrels; boxes.	
Steel plate.....				100-200 pounds in wooden kegs bound with steel hoops.	
Washing compound or powder. See Soap.					
Watch crystals, Swiss.....	17	118	132	Wooden cases, 200 pounds.	
Water-closet tanks.....	17	118	132	Crated, 28 by 10½ by 21 inches.	
Waterproof cloth:					
Containers for cement.....	15	133	149	Bales, 48 by 20 by 36 inches.	
Made of cloth and rubber..	40	50	56	Packages, 37 by 12 by 12 inches.	
Rubber sheeting.....	33	61	68	Packages, 36 by 12 by 12 inches.	
Tent and tarpaulin cloth....	39	51	57	Rolls, 31 by 24 by 24 inches.	
Wavelitte ore.....	120	17	19		
Wax crayons. See Crayons.					
Wax, floor.....	32	62	70		
Waxing pads, used in ironing clothes.	29	69	77		

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Weather strips.....	Pounds 48- 50	Cubic feet 40- 42	Cubic feet 45- 47	Bundles containing 500-1000 linear feet; boxes about 22 by 35 by 6 inches.
Welding compound.....	90	22	25	Barrels, 550-650 pounds; half barrels; boxes.
Wheelbarrow hoppers.....	10- 15	133-200	149-224	
Wheelbarrows:				
All steel.....	42	48	53	Knocked down. Trays nested 3 or more to the bundle. Frames, legs, and wheels bundled separately.
Steel and wood—				
Groups of 1 dozen.....	60	33	37	Knocked down; parts bundled and bodies nested.
Single.....	15	133	149	
Wheels. See Automobile wheels; Truck wheels; Wagon wheels.				
Whetstones, oilstones.....	125	16	18	Boxes or barrels with shavings and sawdust.
Sand whetstones.....	50- 75	27- 40	30- 45	Cases, 10 by 12 by 23 inches.
White metal alloy.....	280	7	8	Slabs, 18 by 12 by 1½ inches.
Wind-shield frames, automobile.	15	133	149	Crated, 16 by 21 by 48 inches.
Wind shields, automobile.....	23	87	97	Boxes, 27½ by 49½ by 6 inches.
Window bolts.....				9 pounds per gross.
Wire:				
Aluminum—				
Bare.....	65	31	34	Boxes; casks; coils; reels
Insulated.....	50	40	45	Do.
Fuse. See Fuse wire.				
German silver.....	77	26	29	Boxes; cases; barrels; reels; coils.
Lead. See Lead wire.				
Wire braid.....	125	16	18	On reels.
Wire brooms.....	10- 18	111-200	125-224	Cases, 20-500 pounds.
Wire cloth:				
Ordinary screen wire—				
Copper or bronze.....	95	21	24	Rolls wrapped in paper or crated. Jobbers' rolls, 7 inches diameter, 30 inches long; screen-manufacturers' rolls, 21 inches diameter, 24 inches long.
Steel.....	50- 65	31- 40	34- 45	Rolls wrapped in paper or crated, 6-7 inches diameter, 18-48 inches long.
Used in mining machinery, cement mills, fertilizer factories, and paper mills.	80-100	20- 25	22- 28	Boxes, 20 by 12 by 12 inches-36 by 24 by 24 inches; rolled on poles and boxed, 10 by 12 inches by 10-14 feet long.
Wire fabric and woven asbestos.	32	63	70	
Wire fencing.....	10- 22	91-200	102-224	

Table of Unit Displacement of Commodities—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Wireless-telegraph equipment, complete.	Pounds 24	Cubic feet 83	Cubic feet 93	Total space required, 86 cubic feet, packed as follows: 1 case, 20 by 20 by 33 inches; 1 case, 30 by 20 by 10 inches; 1 crate, 30 by 30 by 48 inches; 1 bundle, 6 inches diam- eter, 13 feet 6 inches long; 1 case, 36 by 25 by 25 inches; 1 case, 34 by 26 by 18 inches; 1 case, 41 by 25 by 19 inches; 1 case, 36 by 34 by 19 inches.
Wood flour.....	16- 36	56-125	62-140	Sacks; bales; boxes; 24 by 24 by 42 inches.
Wood pulp.....	16	125	140	
Wood-pulp dust.....	5	400	448	4 bushel, machine-pressed into burlap sacks.
Wool.....	11- 16	125-182	140-204	Bales, 4 by 2½ by 2½ feet.
Wrenches, drop-forged end.....	100-120	17- 20	19- 22	
Xylol. See Toluol.				
Yarn:				
Asbestos. See Asbestos yarn.				
Coir. See Coir yarn.				
Paper.....	13- 16	125-154	140-172	
Tow and hemp.....	22- 26	77- 91	86-102	
Zinc:				
Ammonium chloride.....	38- 45	44- 53	50- 59	
Anodes.....				25 pounds each.
Battery zincs.....	150-200	10- 13	11- 15	Boxes; kegs; barrels, 450 pounds.
Concentrates.....	136	15	16	
Dross.....	248	8	9	Slabs, 3 by 11 by 16 inches.
Dust.....	150	13	15	In galvanized-iron containers, 12½ inches diameter, 19½ inches high.
Pigs or slabs.....	450	4.4	5	Slabs, 1½ by 9 by 19 inches.
Plates.....	450	4.4	5	Boxes, 8 by 12 by 24 inches-6 by 24 by 48 inches.
Sherardizing.....	200	10	11	
Skimmings.....	190	11	12	Powder form in bulk.
Sulphate.....	86	23	26	Tank cars.
Wire.....	86	23	26	

APPENDIXES.

APPENDIX No. 1.—Unit Displacement of Canned Fruits and Vegetables Packed in Commercial Containers for Transportation

[These data were prepared from published material from various sources, including "Canned Goods," Miscellaneous Series No. 54 of the Department of Commerce, the "Canning Trade Almanac" for 1917, and Bulletin of the National Association of Box Manufacturers, September 1, 1917, supplemented by other information accumulated within our experience and that kindly offered by members of the National Canner's Association, Bureau of Chemistry, United States Food Administration, and private firms of prominence. This table is confined to can sizes 2, 2½, 3, and 10, the sizes used in exporting canned goods. N. C.=nailed construction; W. B.=wire bound.

CANS IN CASES

Commodity	Cans in case		Type of case	Weight of can contents	Weight per case		Space per case	Space per short ton	Space per long ton
	Size	Number			Net	Gross			
				Ounces	Pounds	Pounds	Cubic feet	Cubic feet	Cubic feet
Apples.....	2½	24	N. C.	26	39	55	1.38	50	56
Do.....	2½	24	W. B.	26	39	52	1.34	52	58
Do.....	3	24	N. C.	29	43	61	1.60	52	59
Do.....	3	24	W. B.	29	43	57	1.55	55	61
Do.....	10	6	N. C.	96	36	49	1.26	51	58
Do.....	10	6	W. B.	96	36	49	1.20	49	55
Apple butter.....	2	24	N. C.	20	30	43	.99	46	52
Do.....	2	24	W. B.	20	30	40	.96	48	53
Do.....	2½	24	N. C.	30	45	62	1.39	45	50
Do.....	2½	24	W. B.	30	45	58	1.34	46	52
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	64	1.55	48	54
Apple sauce.....	2	24	N. C.	19	28	41	.99	49	54
Do.....	2	24	W. B.	19	28	38	1.00	50	57
Do.....	2½	24	N. C.	30	45	62	1.39	45	50
Do.....	2½	24	W. B.	30	45	58	1.34	46	52
Do.....	10	6	N. C.	107	40	53	1.26	48	53
Do.....	10	6	W. B.	107	40	53	1.20	45	51
Artichokes.....	3	24	N. C.	32	48	66	1.60	49	54
Do.....	3	24	W. B.	32	48	62	1.55	50	56
Do.....	10	6	N. C.	102	38	51	1.26	49	55
Do.....	10	6	W. B.	102	38	51	1.20	47	53
Asparagus.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	53
Do.....	3	24	N. C.	32	48	66	1.60	48	54
Do.....	3	24	W. B.	32	48	65	1.55	48	53
Do.....	10	6	N. C.	100	38	51	1.26	49	55
Do.....	10	6	W. B.	100	38	51	1.20	47	53
Beans, baked.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	3	24	N. C.	34	51	68	1.39	41	46
Do.....	3	24	W. B.	34	51	68	1.55	46	51
Do.....	10	6	N. C.	106	40	53	1.26	48	53
Do.....	10	6	W. B.	106	40	53	1.20	45	51

**APPENDIX No. 1.—Unit Displacement of Canned Fruits and Vegetables Packed
in Commercial Containers for Transportation—Continued**

CANS IN CASES—Continued

Commodity	Cans in case		Type of case	Weight of can contents	Weight per case		Space per case	Space per short ton	Space per long ton
	Size	Number			Net	Gross			
				Ounces	Pounds	Pounds	Cubic feet	Cubic feet	Cubic feet
Beans, red kidney and lima	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	53
Do.....	3	24	N. C.	32	48	66	1.60	48	54
Do.....	3	24	W. B.	32	48	65	1.55	48	53
Do.....	10	6	N. C.	105	39	52	1.26	49	55
Do.....	10	6	W. B.	105	39	52	1.20	47	53
Beans, wax and refugee	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	51	57
Do.....	3	24	N. C.	31	46	64	1.60	50	56
Do.....	3	24	W. B.	31	46	63	1.55	49	55
Do.....	10	6	N. C.	105	39	52	1.26	49	54
Do.....	10	6	W. B.	105	39	52	1.20	46	52
Beans and pork	2	24	N. C.	21	32	45	1.00	45	50
Do.....	2	24	W. B.	21	32	42	.96	46	51
Do.....	2½	24	N. C.	31	46	63	1.39	44	49
Do.....	2½	24	W. B.	31	46	59	1.34	45	51
Do.....	3	24	N. C.	34	51	69	1.60	46	52
Do.....	3	24	W. B.	34	51	68	1.55	46	51
Do.....	10	6	N. C.	110	41	54	1.26	47	52
Do.....	10	6	W. B.	110	41	54	1.20	45	50
Beets	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	67	1.55	46	52
Do.....	10	6	N. C.	106	40	53	1.26	47	52
Do.....	10	6	W. B.	106	40	53	1.20	45	51
Blackberries, heavy sirup	2	24	N. C.	21	32	45	1.00	44	50
Do.....	2	24	W. B.	21	32	42	.96	46	51
Do.....	2½	24	N. C.	30	45	62	1.39	45	50
Do.....	2½	24	W. B.	30	45	58	1.34	46	52
Blackberries, water	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	51	57
Do.....	3	24	N. C.	29	44	62	1.60	52	58
Do.....	3	24	W. B.	29	44	61	1.55	51	57
Do.....	10	6	N. C.	104	39	52	1.26	48	54
Do.....	10	6	W. B.	104	39	52	1.20	46	52
Blueberries	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	67	1.55	46	52
Do.....	10	6	N. C.	106	40	53	1.26	48	53
Do.....	10	6	W. B.	106	40	53	1.20	45	51
California fruits: ^a									
Extra.....	2½	24	N. C.	30	45	62	1.39	45	50
Do.....	2½	24	W. B.	30	45	58	1.34	46	52

^a California fruits, among others, include apricots, white and black cherries, grapes, loganberries, peaches, and strawberries. They are carefully graded; those with a heavier sirup give a heavier weight; this is indicated by the grade without repeating the names of the fruit.

**APPENDIX No. 1.—Unit Displacement of Canned Fruits and Vegetables Packed
in Commercial Containers for Transportation—Continued**

CANS IN CASES—Continued

Commodity	Cans in case		Type of case	Weight of can contents	Weight per case		Space per case	Space per short ton	Space per long ton
	Size	Number			Net	Gross			
California fruits—Continued.				Ounces	Pounds	Pounds	Cubic feet	Cubic feet	Cubic feet
Extra standard and standard.....	2½	24	N. C.	29	44	61	1.39	46	51
Do.....	2½	24	W. B.	29	44	57	1.34	47	53
Water.....	2½	24	N. C.	28	42	59	1.39	47	53
Do.....	2½	24	W. B.	28	42	55	1.34	49	55
Extra, extra standard.....	3	24	N. C.	36	54	72	1.60	44	50
Do.....	3	24	W. B.	36	54	71	1.55	44	49
Do.....	10	6	N. C.	104	39	52	1.26	48	54
Do.....	10	6	W. B.	104	39	52	1.20	46	52
Standard, water.....	10	6	N. C.	100	38	51	1.26	49	55
Do.....	10	6	W. B.	100	38	51	1.20	47	53
Cabbage.....	3	24	N. C.	32	48	66	1.60	48	54
Do.....	3	24	W. B.	32	48	65	1.55	48	53
Cauliflower.....	3	24	N. C.	32	48	66	1.60	48	54
Do.....	3	24	W. B.	32	48	65	1.55	48	53
Cherries.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	2½	24	N. C.	29	44	61	1.39	46	51
Do.....	2½	24	W. B.	29	44	57	1.34	47	53
Do.....	10	6	N. C.	105	39	52	1.26	48	54
Do.....	10	6	W. B.	105	39	52	1.20	46	52
Condensed milk.....		48	N. C.	14	42	58	1.16	40	45
Do.....		48	W. B.	14	42	55	1.11	40	45
Corn.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	10	6	N. C.	106	40	53	1.25	48	53
Do.....	10	6	W. B.	106	40	53	1.20	45	51
Evaporated milk.....		48	N. C.	16	48	68	1.47	43	48
Do.....		48	W. B.	16	48	64	1.41	44	49
Figs.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	10	6	N. C.	104	39	52	1.26	48	54
Do.....	10	6	W. B.	104	39	52	1.20	46	52
Gooseberries.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	10	6	N. C.	103	39	52	1.26	48	54
Do.....	10	6	W. B.	103	39	52	1.20	46	52
Hominy.....	2½	24	N. C.	31	46	63	1.39	44	49
Do.....	2½	24	W. B.	31	46	59	1.34	45	51
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	67	1.55	46	52
Do.....	10	6	N. C.	107	40	53	1.26	48	53
Do.....	10	6	W. B.	107	40	53	1.20	45	51
Okra.....	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	39	.96	51	57
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	67	1.55	46	52
Do.....	10	6	N. C.	103	39	52	1.26	48	54
Do.....	10	6	W. B.	103	39	52	1.20	46	52

APPENDIX No. 1.—Unit Displacement of Canned Fruits and Vegetables Packed in Commercial Containers for Transportation—Continued

CANS IN CASES—Continued

[illegible]

**APPENDIX No. 1.—Unit Displacement of Canned Fruits and Vegetables Packed
in Commercial Containers for Transportation—Continued**

CANS IN CASES—Continued

Commodity	Cans in case		Type of case	Weight of can contents	Weight per case		Space per case	Space per short ton	Space per long ton
	Size	Number			Net	Gross			
				Ounces	Pounds	Pounds	Cubic feet	Cubic feet	Cubic feet
Prunes.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Peas.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	10	6	N. C.	108	40	53	1.26	48	53
Do.....	10	6	W. B.	108	40	53	1.20	45	51
Pumpkin.....	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	50	57
Do.....	2½	24	N. C.	30	45	62	1.39	45	50
Do.....	2½	24	W. B.	30	45	58	1.34	46	52
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	67	1.55	46	52
Do.....	10	6	N. C.	104	39	52	1.26	48	54
Do.....	10	6	W. B.	104	39	52	1.20	46	52
Raspberries, heavy sirup.....	2	24	N. C.	21	32	45	1.00	44	50
Do.....	2	24	W. B.	21	32	42	.96	46	51
Do.....	2½	24	N. C.	30	45	62	1.39	45	50
Do.....	2½	24	W. B.	30	45	58	1.34	46	52
Do.....	10	6	N. C.	106	40	53	1.26	48	53
Do.....	10	6	W. B.	106	40	53	1.20	45	51
Raspberries, water.....	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	51	57
Rhubarb.....	2½	24	N. C.	31	46	63	1.39	44	49
Do.....	2½	24	W. B.	31	46	59	1.34	45	51
Do.....	10	6	N. C.	100	38	51	1.26	49	55
Do.....	10	6	W. B.	100	38	51	1.20	47	53
Salmon.....	1 lb.	48	N. C.				1.52		
Do.....	1 lb.	48	W. B.				1.47		
Sauerkraut.....	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	51	57
Do.....	2½	24	N. C.	29	44	61	1.39	45	51
Do.....	2½	24	W. B.	29	44	57	1.34	47	53
Do.....	3	24	N. C.	32	48	66	1.60	48	54
Do.....	3	24	W. B.	32	48	65	1.55	48	53
Do.....	10	6	N. C.	100	38	51	1.26	49	55
Do.....	10	6	W. B.	100	38	51	1.20	47	53
Soups.....	10	6	N. C.	112	42	55	1.26	46	51
Do.....	10	6	W. B.	112	42	55	1.20	44	49
Spinach.....	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	51	57
Do.....	2½	24	N. C.	28	42	59	1.39	47	53
Do.....	2½	24	W. B.	28	42	55	1.34	49	55
Do.....	3	24	N. C.	30	45	63	1.60	51	57
Do.....	3	24	W. B.	30	45	62	1.55	50	56
Do.....	10	6	N. C.	100	38	51	1.26	49	55
Do.....	10	6	W. B.	100	38	51	1.20	47	53

**APPENDIX No. 1.—Unit Displacement of Canned Fruits and Vegetables Packed
in Commercial Containers for Transportation—Continued**

CANS IN CASES—Continued

Commodity	Cans in case		Type of case	Weight of can contents	Weight per case		Space per case	Space per short ton	Space per long ton
	Size	Number			Net	Gross			
				Ounces	Pounds	Pounds	Cubic feet	Cubic feet	Cubic feet
Squash.....	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	51	57
Do.....	2½	24	N. C.	30	45	62	1.39	45	50
Do.....	2½	24	W. B.	30	45	68	1.34	46	52
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	67	1.55	46	52
Do.....	10	6	N. C.	104	39	52	1.26	48	54
Do.....	10	6	W. B.	104	39	52	1.20	46	52
Succotash.....	2	24	N. C.	20	30	43	1.00	47	52
Do.....	2	24	W. B.	20	30	40	.96	48	54
Do.....	10	6	N. C.	106	40	53	1.26	48	53
Do.....	10	6	W. B.	106	40	53	1.20	45	51
Sweet potatoes.....	2½	24	N. C.	28	42	59	1.39	47	53
Do.....	2½	24	W. B.	28	42	55	1.34	49	55
Do.....	3	24	N. C.	31	46	64	1.60	50	56
Do.....	3	24	W. B.	31	46	63	1.55	49	55
Do.....	10	6	N. C.	100	38	51	1.26	49	55
Do.....	10	6	W. B.	100	38	51	1.20	47	53
Tomatoes and tomato sauce..	2	24	N. C.	19	28	41	1.00	49	55
Do.....	2	24	W. B.	19	28	38	.96	51	57
Do.....	2½	24	N. C.	28	42	59	1.39	47	53
Do.....	2½	24	W. B.	28	42	55	1.34	49	55
Do.....	3	24	N. C.	33	50	68	1.60	47	53
Do.....	3	24	W. B.	33	50	67	1.55	46	52
Do.....	10	6	N. C.	103	39	52	1.26	48	54
Do.....	10	6	W. B.	103	39	52	1.20	46	52

APPENDIX No. 1.—Unit Displacement of Canned Fruits and Vegetables Packed in Commercial Containers for Transportation—Continued

EXPORT BOXES

Size of can	Number per case	Space per case	Case displacement filled by can contents	Tin plate per cubic foot of can displacement	Tin plate per cubic foot of can contents	Wood in one case	White pine (27 lbs. per cubic foot)	Yellow pine (40 lbs. per cubic foot)	Cotton-wood (28 lbs. per cubic foot)	Red gum (34 lbs. per cubic foot)	Black gum (35 lbs. per cubic foot)	Birch and beech (44 lbs. per cubic foot)
Nailed construction: ^a		Cu. ft.	P. ct.	Sq. ft.	Sq. ft.	Cu. ft.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1.....	24	0.598	52.7	12.6	23.9	0.152	4.1	6.1	4.3	5.2	5.3	6.7
1.....	48	1.106	57.0	13.6	23.9	.232	6.3	9.3	6.5	7.9	8.1	10.2
1 tall.....	24	.631	53.2	12.5	23.5	.158	4.3	6.3	4.4	5.4	5.5	7.0
1 tall.....	48	1.167	57.5	13.5	23.5	.240	6.5	9.6	6.7	8.2	8.4	10.6
2.....	24	1.005	56.4	11.0	19.5	.218	5.9	8.7	6.1	7.4	7.6	9.6
1-pound salmon.....	48	1.538	59.0	12.5	21.2	.293	7.9	11.7	8.2	9.9	10.2	12.8
Condensed milk.....	48	1.173	57.2	13.2	23.1	.240	6.7	9.9	6.9	8.4	8.7	10.9
Evaporated milk.....	48	1.480	58.8	11.8	21.5	.287	7.7	11.4	8.0	9.7	9.9	12.5
2½.....	24	1.399	58.4	10.3	17.1	.274	7.4	11.0	7.7	9.3	9.6	12.0
3.....	24	1.618	59.3	9.6	16.2	.304	8.2	12.2	8.5	10.3	10.6	13.4
8.....	6	1.109	56.6	6.6	11.8	.238	6.4	9.5	6.7	8.1	8.3	10.5
10.....	6	1.270	57.5	6.4	11.2	.259	6.9	10.2	7.2	8.7	9.0	11.3
Wire bound: ^b												
1.....	24	.566	55.7	13.3	23.9	.104	2.8	4.2	2.9	3.5	3.6	4.6
1.....	48	1.048	60.0	14.3	23.9	.140	3.8	5.6	3.9	4.8	4.9	6.2
1 tall.....	24	.599	56.0	13.1	23.3	.106	2.9	4.2	3.0	3.6	3.7	4.7
1 tall.....	48	1.108	60.5	14.2	23.5	.160	4.3	6.4	4.5	5.4	5.6	7.0
2.....	24	.959	59.2	11.5	19.5	.146	3.9	5.8	4.1	5.0	5.1	6.4
1-pound salmon.....	48	1.466	61.4	13.1	21.2	.192	5.2	7.7	5.4	6.5	6.7	8.4
Condensed milk.....	48	1.107	60.6	14.0	23.1	.164	4.4	6.6	4.6	5.6	5.7	7.2
Evaporated milk.....	48	1.411	61.7	12.3	21.5	.187	5.0	7.5	5.2	6.4	6.5	8.2
2½.....	24	1.337	61.2	10.8	17.1	.180	4.9	7.2	5.0	6.1	6.3	7.9
3.....	24	1.550	61.6	10.0	16.2	.198	5.3	7.9	5.5	6.7	6.9	9.7
8.....	6	1.041	60.4	7.1	11.8	.161	4.3	6.4	4.5	5.5	5.6	7.1
10.....	6	1.198	61.0	6.8	11.2	.244	6.6	9.8	6.8	8.3	8.5	10.7

^a These boxes are of styles 1 and 2, constructed ¾-inch ends and ¾-inch sides, tops, and bottoms.^b This group constructed of ¼-inch material, bound with ¾ by 1½-inch cleats and 13-gage wire.

APPENDIX No. 2.—Stowage Data on Fresh Fruits and Vegetables Largely Taken from the Western Weighing and Inspection Bureau, Circular No. 212

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Apples.....	Pounds 21-23	Cubic feet 87-95	Cubic feet 97-107	Standard barrels, 28½ inch staves, 17½ inch heads, 64 inches outside bilge circumference; average weight 150-160 pounds.
Do.....				Bushel baskets, 47 pounds; standard boxes, 50 pounds.
Apricots.....				Bushel baskets, 51 pounds.
Do.....	28	71	80	4-basket crates, 5 by 16½ by 17½ inches.
Do.....	34	59	66	Boxes, 3 by 12 by 19¾ inches and 4½ by 12 by 20 inches.
Do.....	35	57	64	Boxes, 5 by 12 by 19¾ inches.
Do.....	26	77	86	Boxes, 5½ by 16½ by 20 inches.
Beans, green.....	23	87	98	Hampers, 9 by 13 by 13½ inches and 10½ by 15½ by 18½ inches.
Beets.....	26	77	86	Hampers, 10½ by 15½ by 18 inches.
Blackberries. Same as Strawberries.				
Cabbage.....	26	77	86	Crates, 20 by 20 by 28 inches.
Cantaloupes.....	27	74	83	Hampers, 10½ by 15½ by 18½ inches.
Do.....	31	65	72	Crates, 4½ by 12¾ by 23¾ inches.
Do.....	28-35	57- 71	70- 80	Crates, 5-5¾ by 13½-15½ by 22½-24 inches.
Do.....	30-31	65- 67	72- 75	Crates, 11½-12¾ by 11½-12¾ by 22-24 inches.
Carrots.....	21	95	107	Hampers, 10½ by 15½ by 18½ inches.
Cherries.....	26	77	86	Pint cups in crates, 6¼-7¾ by 14½-14¾ by 19¾ inches.
Do.....	30	67	75	24-pint boxes, 2-deck crates, 6-6½ by 13½-14½ by 19¾ inches.
Do.....	32	63	70	16 baskets, 2-deck crates, 7½ by 10½ by 22 inches.
Do.....	24-29	69- 83	77- 93	Quart cups in crates, 7½-7¾ by 10¾-15¾ by 22 inches.
Do.....	23-25	80- 87	90- 97	16-quart boxes in crates, 8¾ by 10½ by 22½-23 inches.
Do.....	27	74	83	16 quarts in overhanded splint baskets, 7½ by 9 by 19½ inches.
Do.....	29	69	77	24-quart boxes, 2-deck crates, 7¾-8½ by 15½-15¾ by 22-22½ inches.
Do.....	26	77	86	24-quart boxes, 3-deck crates, 11½-11¾ by 11½-11¾ by 23¾-23¾ inches.
Do.....	25-35	57- 80	64- 90	In bulk in boxes, 2½-7½ by 9½-14½ by 19½-22 inches.
Crabapples.....	37	54	61	In bulk, 4½ by 12 by 20 inches.
Cranberries.....	20	100	112	Standard barrels, 28½ inch staves, 16½ inch heads, 58½ inches outside bilge circumference; average weight, 120 pounds.

APPENDIX No. 2.—Stowage Data on Fresh Fruits and Vegetables Largely Taken from the Western Weighing and Inspection Bureau, Circular No. 212—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Currants.....	21	95	107	16-quart boxes in crates, 8½ by 10½ by 22½ inches.
Do.....	20	100	112	24-quart boxes in crates, 8½ by 15½ by 22½ inches.
Gooseberries.....	23	87	98	16-quart boxes in crates, 8½ by 10½ by 22½ inches.
Do.....	24	83	93	24-quart boxes in crates, 8½ by 15½ by 22½ inches.
Grapefruit.....	29	69	77	Boxes, 13 by 13 by 27 inches.
Do.....	30	67	75	Boxes, 12½ by 13 by 27 inches.
Do.....	32	63	70	Boxes, 12½-12¾ by 12½-12¾ by 27 inches.
Do.....	33	61	68	Boxes, 12 by 12 by 26 inches; 12½ by 12½ by 27 inches; and 12½ by 12½ by 27 inches.
Do.....	34	59	66	Boxes, 12½ by 12½ by 28 inches.
Do.....	35	57	64	Boxes, 12 by 12 by 27-28 inches.
Grapes.....				In drums, 14-16½ inches diameter, not over 17 inches high; weight, 50 pounds.
Do.....				In Climax shipping baskets, top 6½ by 14½ inches, bottom 5 by 12½ inches, depth 5½ inches, weight 7 pounds.
Do.....	34-37	54-59	61-66	4-basket crates, 5-6 by 16-17 by 17½-18 inches.
Lemons.....	36	55	62	Boxes 11½ by 14 by 27 inches, 12 by 13½ by 27 inches; or 12 by 14½ by 27 inches.
Do.....	37	54	61	Boxes 10¾-11½ by 14 by 27 inches; or 12½ by 12½ by 28 inches.
Do.....	39	51	57	Boxes 10½ by 14 by 27 inches.
Do.....	40	50	56	Boxes 10½ by 13 by 27 inches.
Do.....	44	45	51	Boxes 10 by 13½ by 27 inches.
Lettuce.....	17	117	132	In hampers 10½ by 15½ by 18½ inches.
Melons, Casaba.....	28	72	80	In crates 7½ by 17 by 23½ inches.
Do.....	29	69	77	In crates 8¾ by 17 by 23½ inches.
Do.....	30	67	75	In crates 8 by 17 by 23½ inches.
Melons, honey dew.....	24	83	94	In crates 12¾ by 12¾ by 23½ inches.
Do.....	25	80	90	In crates 8 by 17 by 23½ inches or 9 by 17 by 23½ inches.
Do.....	26	77	86	In crates 7½ by 17 by 23½ inches or 8½ by 17 by 23½ inches.
Do.....	30	67	75	In crates 6½ by 15 by 23½ inches or 6¾ by 16¾ by 23½ inches.
Onions.....	50	40	45	In crates 9½ or 10½ by 11 or 11½ by 19½ inches.
Oranges.....	30	67	75	In boxes 12½ by 14 by 26 inches.
Do.....	31	65	72	In boxes 12 by 14¾ by 26 inches.
Do.....	34	59	66	In boxes 13 by 13 by 27 inches.

APPENDIX No. 2.—Stowage Data on Fresh Fruits and Vegetables Largely Taken from the Western Weighing and Inspection Bureau, Circular No. 212—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
Oranges	Pounds 37	Cubic feet 54	Cubic feet 61	In boxes 11 by 14 by 27 inches, 11½ by 14 by 27 inches, 12 by 12 by 26 inches, 12 by 12½ by 26 inches, or 12 by 12 by 26½ inches.
Do.....	38	53	59	In boxes 11¾ by 12 by 26½ inches.
Do.....	39	51	57	In boxes 12 by 12 by 26½ inches or 12 by 12 by 28 inches.
Do.....	43	47	52	In boxes 11½ by 11½ by 26 inches.
Parsnips.....				In bushel baskets, average weight 43 pounds.
Peaches.....	33	62	68	In boxes or crates, 5½ by 12 by 20 inches.
Do.....	34	61	66	In boxes or crates, 5 by 12 by 20 inches.
Do.....	35	59	64	In boxes or crates, 4½ by 12 by 19½ inches.
Grown in Idaho.....				In bushel baskets, average weight 52 pounds.
Grown in Arkansas, Colorado, Oklahoma, and Utah.....				In bushel baskets, average weight 53 pounds.
Grown in Missouri and Texas.....				In bushel baskets, average weight 54 pounds.
Pears.....				In barrels, average weight 187 pounds.
Do.....				In bushel baskets, average weight 56 pounds.
Do.....	33	62	68	In boxes 11 by 12 by 19¾ inches.
Do.....	38	54	59	In boxes 5 by 12 by 19¾ inches.
Do.....	39	53	58	In boxes 9½ by 12 by 20 inches.
Do.....	40	50	56	In boxes 9 by 12 by 20 inches.
Do.....	42	49	53	In boxes 9 by 12 by 19¾ inches.
Pineapples, Cuban.....	27	76	83	4-basket crates.
Do.....	27	76	83	In crates 11 by 13 by 36 inches.
Plums.....				In bushel baskets, average weight 60 pounds.
Do.....	30	67	75	4-basket crates 5 by 16½ by 17½ inches.
Do.....	38	54	59	4-basket crates 4 by 16 by 17 inches.
Do.....	31	67	72	In bulk in boxes or crates 5½ by 16½ by 18 inches.
Do.....	37	56	61	In bulk in boxes or crates 5 by 12 by 19¾ inches.
Do.....	39	53	58	In bulk in boxes or crates 3 by 12 by 19¾ inches.
Potatoes.....	37	54	60	Standard barrels.
Do.....	42	41	55	Bags, 150 pounds.
Potatoes, sweet.....	23	87	97	Standard barrels, 28½ inch staves, 17½ inch heads, 64 inches, outside bilge circumference; average weight, 164 pounds.

APPENDIX No. 2.—Stowage Data on Fresh Fruits and Vegetables Largely Taken from the Western Weighing and Inspection Bureau, Circular No. 212—Continued

Commodity	Weight per cubic foot	Space per short ton	Space per long ton	How packed for shipment
	Pounds	Cubic feet	Cubic feet	
Potatoes, sweet.....				In bushel baskets, average weight 52 pounds.
Prunes:				
German.....	47	43	48	In bulk in boxes, 3½ by 11¾ by 19¾ inches.
Hungarian.....	35	57	64	4-basket crates, 5 by 16½ by 17½ inches.
Italian.....	32	62	70	In bulk in boxes, 5 by 16½ by 17½ inches.
Do.....	34	59	66	In bulk in boxes, 4½ by 12 by 19¾ inches.
Do.....	42	48	53	In bulk in boxes, 3½ by 12 by 19¾ inches.
Silver.....	33	61	68	4-basket crates, 4½ by 16½ by 17½ inches.
Radishes.....				In barrels with cloth tops, packed in ice, average weight 210 pounds.
Do.....	22	91	102	Standard barrels with cloth tops, 28½ inch staves, 17½ inch heads, 64 inches outside bilge diameter; average weight not packed in ice, 158 pounds.
Raspberries. See Strawberries.				
Spinach.....	20	100	112	With ice, in hampers, 10½ by 15½ by 18½ inches.
Do.....	17	117	132	Without ice, in hampers, 10½ by 15½ by 18½ inches.
Strawberries, blackberries, and raspberries.	14	143	160	In cups in crates, 7½ by 14½ by 19¾ inches.
Do.....	26	77	85	16-quart boxes in crates, 7½ by 9½ by 22 inches.
Do.....	21	95	107	16-quart boxes in crates, 8¾ by 10½ by 22½ inches.
Do.....	22	91	102	24-quart boxes in crates, 8½ by 15½ by 22½ inches.
Do.....	19-22	91-105	102-118	24-quart boxes in crates, 11-12 by 13 by 22-24 inches.
Tomatoes.....				In bushel baskets, average weight 56 pounds.
Do.....	30	67	75	In crates, 10½ by 11 by 23 inches.
Do.....	37	54	61	In crates, 4½ by 12 by 20 inches.
Do.....	39	51	57	In crates, 10¾ by 12¾ by 19¾ inches.
Do.....				In crates, top 13½ by 22 inches, bottom 11½ by 22 inches, depth 5 inches.
Do.....	27-35	57-74	64-83	In crates, 5 by 12-14 by 19½-22 inches.



