

CATALOGUE OF ILLUSTRATIONS OF THE ECONOMICAL INVERTEBRATES OF THE AMERICAN COASTS.

MOLLUSCA.

Mollusca cephalopoda.—SQUIDS AND CUTTLES.

32905. Sepia "bone," or endosteum, in natural condition. East coast of the United States. Uses: Fed to cage-birds requiring lime.
- 32905a. Pounce: Powdered sepia-bone; used in rewriting over erasures to prevent blotting, in medicine as an antacid.
33005. Cuttle-fish (*Octopus punctatus*, Gabb). California to Alaska. Used for bait in the cod-fishery, and by the natives for food. W. H. Dall.
25972. Oil of squid (*Ommastrephes illecebrosa*). Capt. N. E. Atwood, Provincetown, Mass.

Mollusca gasteropoda.—SEA-SNAILS, &c.

A. Useful:

1. Used for food or bait:

32885. Velvet chiton (*Cryptochiton stelleri*). Alaska to California. Indian food. W. H. Dall.
32886. Coat-of-mail shell (*Katherina tunicata*). Alaska to California. Indian food. W. H. Dall.
32883. Limpet (*Acmæa testudinalis*). Connecticut to Labrador. W. H. Dall.
32904. Western limpet (*Acmæa patina*). Alaska to California. W. H. Dall.
32880. Rockwinkle (*Litorina subtenebrosa*). Alaska to Oregon. W. H. Dall.
32882. Periwinkle (*Purpura canaliculata*). Alaska to California. W. H. Dall.
32884. Periwinkle (*Purpura ostrina*). California. W. H. Dall.
32903. Periwinkle (*Purpura lapillus*). Cape Cod to Labrador. W. H. Dall.

2. Useful by producing pearl-shell, &c.:

32830. Turban-shell (*Trochiscus norrissii*). California. H. Hemphill.
32832. Top-shell (*Pomaulax undosum*), in natural state. California. H. Hemphill.
32831. Top-shell, prepared to show pearly layers. California. H. Hemphill.
29301. Manufactured state of various kinds of American pearl-shells derived from gasteropods or sea-snails. Furnished by A. B. De Frece & Co., 428 Broadway, New York.
32838. Sea-ears (*Haliotis Kamchatkana*), affording pearl-shell and food. Alaska. J. G. Swan.

32890. Rough sea-ear (*H. corrugata*). Southern California. Used for pearl-shell and for food. Specimen in natural condition. W. H. Dall.
 —. Rough sea-ear. Specimen ground and polished to show pearly layers. J. T. Ames.
32900. Red sea-ear or abalone (*H. rufescens*). Monterey, Cal. Used for pearl-shell and for food. Specimens in natural condition. H. Hemphill.
 —. Red sea-ear. Polished specimen showing pearly layers. J. T. Ames.
 —. Red sea-ear. Fleshy portion prepared and dried for food by California Chinese. Chinese market, California. H. Hemphill.
32823. White abalone (*H. cracherodii*), producing pearl-shell and food. Natural state. California. Paul Schumacher.
32899. White abalone. Natural state. Monterey, Cal. H. Hemphill.
 —. White abalone. Polished to show pearly layers. Jas. T. Ames.
4792. White abalone. Polished specimens.
32821. Splendid sea-ear (*H. splendens*) affording food and pearl-shell. California. Paul Schumacher.
32898. Splendid sea-ear. Natural condition. Southern California. H. Hemphill.
 —. Splendid sea-ear. Polished to show pearly layers. J. T. Ames.
 —. Splendid sea-ear. Young specimen polished. J. T. Ames.
29302. Manufactures of *Haliotis* shell, showing application in the arts. Furnished by A. B. De Frece & Co., 428 Broadway, New York.
29248. Ditto. Parasol-handles. Furnished by Harvey & Ford, Philadelphia, Pa.

3. Affording cameo and porcelain stock:

6968. Cameo-shell (*Cassis rufa*), used for cameo cutting. Florida. Dr. Wm. Stimpson.
 —. Queen conch (*Strombus gigas*), exported to Liverpool in great numbers and ground up for making porcelain.¹ West Indies.

4. Used in Indian trade:

2705. Hyqua shell (*Dentalium indianorum*), used in Indian trade. In this case the shells have been made into a belt by the purchaser. West coast of America. U. S. Exploring Expedition.

5. Affording dyestuffs:

32907. Sea-hare (*Aplysia*). Affording purple dye. Florida. F. B. Meek.
 32896. Sea-hare. Specimen of the purple fluid. F. B. Meek.
 32911. Purple shells (*Phyllonotus radix*). Ornamental and producing dye. Lower California. W. H. Dall.
 32912. Purple shells (*Phyllonotus bicolor*). Used for ornaments and affording dye. West coast of America. W. H. Dall.

6. Affording bird-lime:

33080. Giant slug (*Ariolimax columbianus*), affords a thick tenacious slime, which is used by the Indians to lime humming-birds. California to Alaska. H. Hemphill.

¹The sea-ears and queen conchs are also largely used in Indian trade in a manufactured state.

B. Injurious :

1. By destroying food-producing mollusks or shell fish, such as clams, mussels, oysters, and razor-fish :

32860. Ribbon whelk (*Fulgur carica*). Florida. T. A. Conrad.
 32859. Reversed whelk (*Fulgur perversa*). Carolinas. Dr. Wm. Stimpson.
 32861. Hairy whelk (*Sycotypus canaliculatus*). Vineyard Sound. Dr. Wm. Stimpson.
 32864. Winged conch (*Strombus alatus*). Tampa Bay, Florida. T. A. Conrad.
 32863. Thorny drill (*Hemifusus bicoronatus*). Tampa Bay, Florida. T. A. Conrad.
 32835. Drill (*Urosalpinx cinereus*). Florida to Massachusetts Bay. W. H. Dall.
 32975. Drill. South Norwalk, Conn. Hoyt Bros.
 32837. Periwinkle (*Purpura floridana*). Barataria Bay, La. Gustav Kohn.
 32892. Sea-snail (*Lunatia Lewisii*). Monterey, Cal. H. Hemphill.
 32913. Sea-snail (*Neverita recluziana*). California. W. H. Dall.
 27620. Sea-snail (*Neverita duplicata*). North Carolina. T. D. Kurtz.
 32866. Sea-snail (*Lunatia heros*). Massachusetts Bay. C. B. Fuller.

2. Injurious by destroying vegetable substances and garden plants :

33088. Slug (*Limax Hewstoni*). Oakland, Cal. H. Hemphill.

Mollusca acephala.—BIVALVE SHELLFISH.

A. Producing food or used as bait.

* *Oysters.*

1. Series illustrating distribution and geographical varieties :

Ostrea virginica, Gmelin.—EAST AMERICAN OYSTERS.

32784. Northern variety (*O. borealis*, Lam.) Prince Edward's Island. J. W. Dawson.
 32813. Nova Scotia. J. H. Willis.
 32785. Shediac, New Brunswick. W. H. Dall.
 33092. "Pourrier Bed." Shediac, New Brunswick. G. F. Mathew.
 33093. "Buctouche." Kent County, New Brunswick. G. F. Mathew.
 32783. Miramichi River, New Brunswick. W. H. Dall.
 32977. Indigenous oyster, now extinct. Shell-heaps. Damariscotta, Maine. Robert Dixon.
 32978. Ditto. Shell-heaps. Sheepscot River, Maine. Robert Dixon.
 32810. Indigenous oyster (var. *borealis*). Buzzard's Bay, Mass. Dr. Wm. Stimpson.
 32814. Specimens showing color-bands. Rhode Island. General Totten.

NOTE.—The following series of oysters from the vicinity of New York were furnished by Mr. B. J. M. Carley, oyster-dealer, of Fulton Market, New York, through Mr. E. G. Blackford :

32790. "Greenwich." Greenwich, Conn.
 32777. "Blue Point." Long Island, New York.
 32779. "Lloyd's Harbor." Long Island, New York.

32781. "Cow Bay." Long Island, New York.
 32791. "Glenwood." Glenwood, Long Island, New York.
 32812. "Cove." Long Island, New York.
 32920. "City Island." Long Island Sound, New York.
 32919. "Mill Pond." Cow Bay, Long Island, New York.
 32778. "Shrewsburys." Shrewsbury River, New Jersey.
 32915. "Egg Island." Three years old. Morris Cove, Delaware.
 33788. "Chesapeake." Crisfield, Md. E. G. Blackford.
 32976. Pokamoke, Virginia. E. G. Blackford.

NOTE.—The following series from the waters of Virginia and Maryland, all indigenous or "natural growths" as distinguished from "plants," were selected by Mr. G. W. Harvey, and furnished by Harvey & Holden, oyster-dealers of Washington, D. C.:

33096. "St. Gerome River." Maryland.
 33097. "Deep Creek." Eastern shore of Maryland.
 33098. "Tangier Sound." Chesapeake Bay.
 33100. "Little River." Western shore of Maryland.
 33099. "Point Lookout Creek." Virginia.
 33101. "Naswaddox." Eastern shore of Virginia.
 33095. "Rappahannock." Rappahannock River, Virginia.
 33103. "York River." York River, Virginia.
 33104. "Cherrystones." Chesapeake Bay.
 33102. "Presby's Creek." Presby's Creek, Virginia.

The following series from Florida were furnished by Kossuth Niles, U. S. N.:

32805. "Appalachicola Bay." Appalachicola Bay, Florida.
 32806. "Cat Point." Same locality.
 32807. ———. Same locality.
 32808. "Raccoon oysters." Appalachicola Bay, Florida.

The following series from the vicinity of New Orleans were selected by M. Zatarain, and furnished by W. Alex. Gordon, esq., of New Orleans, La.:

32800. "Timbalier Bay." Louisiana.
 32801. "Southwest Pass." Louisiana.
 32802. "Bayou Cook." Louisiana.
 32803. "Four Bayous." Louisiana.
 32804. "Grand Lake." Louisiana.

Ostrea lurida, Cpr.—WEST COAST OYSTERS.

32879. Natives. Crescent City, Cal. W. H. Dall.
 32809. Natives. Shoalwater Bay, W. T. H. Hemphill.
 32798. Natives. San Diego, Cal. H. Hemphill.
 32798. Eastern oyster (*O. virginica*). Taken from Newark Bay, N. J., when a year old and planted in San Francisco Bay; showing two years' growth in California waters.

Extra limital:

32878. Fossil oyster from marine Tertiary beds near Vicksburg, Miss. Closely resembling the present English oyster.
 32311. Fresh specimen, English oyster (*O. edulis*, Linn.). Introduced for comparison with the American fossil and recent oysters. North Sea. Dr. Wm. Stimpson.

2. Series illustrating culture and individual variations:

Ostrea virginica, Gmelin.—EAST AMERICAN OYSTERS.

That portion of the series from South Norwalk, Conn., was furnished by Hoyt Bros. of that place, at the instance of James Richardson, esq. The portion of the series from the vicinity of New York was furnished by Mr. B. J. M. Carley through Mr. E. G. Blackford, of New York.

a. Growth. 1-20 years old:

- 32958. Young spat on various stools. South Norwalk, Conn.
- 32957. One year old. South Norwalk, Conn.
- 32967. Two to three years old. Natural growth. South Norwalk, Conn.
- 32968. Three to four years old. Natural growth. South Norwalk, Conn.
- 32965. "Cullers." Three to four years old. South Norwalk, Conn.
- 32962. Three years after transplantation. South Norwalk, Conn.
- 32964. "Box." Four to six years old. South Norwalk, Conn.
- 32916. "Cullers." Three years old. Vicinity of New York.
- 32918. "Single extra." Four years old. Vicinity of New York.
- 32776. "Double extra." Vicinity of New York.
- 32917. "Box." Three years old. Vicinity of New York.

b. Peculiarities of form and growth:

- 32959. "Pinched" oyster from muddy bottom. South Norwalk, Conn.
- 32930. Showing effect of transplanting the "pinched" from a muddy to a hard bottom. South Norwalk, Conn.
- 32787. Form caused by growing in a tideway. Vicinity of New York.
- 32786. Form caused by growing in still water. Vicinity of New York.
- 32974. Curious forms of shell. South Norwalk, Conn.
- 32782. Peculiar growth. Vicinity of New York.
- 32795. Specimens of peculiar form. Vicinity of New York.
- 32971. Natural growth on stone. South Norwalk, Conn.
- 32973. Natural growth on part of stone jug. South Norwalk, Conn.
- 32972. Natural growth on shells. South Norwalk, Conn.
- 32970. Natural growth on bottle. South Norwalk, Conn.
- 32969. Natural growth on crab. South Norwalk, Conn.
- 32780. Illustrating methods of attachment. Vicinity of New York.
- 32914. Blue Point "seed." Long Island, New York.
- 32789. Rosette of oysters. Vicinity of New York.
- 32792. Shell growing on *Maetra* shell. Vicinity of New York.
- 32794. "Seed" on old rubber boot. Vicinity of New York.
- 32793. "Seed" growing on stone. Vicinity of New York.
- 32895. "Seed" on rubber shoe. Vicinity of New York.
- 32894. "Seed" on bone. Vicinity of New York.
- 32797. "Seed" on bark. Vicinity of New York.
- 32796. "Seed" on leather shoe. Vicinity of New York.
- 32932. "Seed" on old boot-leg. Vicinity of New York.

c. Enemies and parasites:

- 32927. Specimens injured by whelk. South Norwalk, Conn.
- 32929. Specimens injured by hairy whelk. South Norwalk, Conn.

32928. Specimens perforated by "drill." South Norwalk, Conn.
 32963a. Specimen injured by boring worm (an *Annelid*). South Norwalk, Conn.
 32956. Specimens killed by star-fish. South Norwalk, Conn.
 32963. Specimens showing ravages of *Cliona* or boring sponge. South Norwalk, Conn.
 For commensal crab see Crustacea.
 33092a. Lime derived from oyster shells. Use in medicine and as a fertilizer. Washington, D. C. W. H. Dall.

*** *Other bivalves.*

A. Affording or available for food or bait.

32887. Rock oyster (*Placunanomia macroschisma*, Desh.). Alaska to California. W. H. Dall.
 32873. Scallops (*Pecten irradians*, Lam.). Long Island Sound. Dr. Wm. Stimpson.
 32868. Great scallop (*P. tenuicostatus*, Migh.). Coast of Maine. C. B. Fuller.
 27523. Black mussel (*Mytilus edulis*, L.). Massachusetts Bay. Dr. Wm. Stimpson.
 32857. Ditto. San Francisco Bay, California. H. Hemphill.
 32845. Ditto. Monterey, Cal. H. Hemphill.
 32849. Ditto. San Diego, Cal. H. Hemphill.
 32875. Grooved mussel (*Modiola plicatula*, Lam.). Nahant, Mass. Dr. Wm. Stimpson.
 32834. Ditto. (*Modiola*, sp.) Last Island, La. Gustav Kohn.
 32858. Brown mussel (*M. capax*, Conr.). San Diego, Cal. H. Hemphill.
 32876. Ditto. (*M. modiolus*, L.) Massachusetts Bay. Dr. Wm. Stimpson.
 32897. Ditto. Massachusetts Bay. Dr. Wm. Stimpson.
 —. Ditto. Castine, Me. A. R. Crittenden.
 32871. Giant cockle (*Cardium magnum*, Birn.). Tampa Bay, Florida. T. A. Conrad.
 32851. Egg cockle (*C. elatum*, Sby.). Guaymas, west coast Mexico. Dr. Palmer.
 32853. Nuttall's cockle (*C. nuttallii*, Con.). Baulinas, Cal. H. Hemphill.
 32891. Ditto. Alaska. W. H. Dall.
 32872. "Red edge" (*Codakia tigerrina*, L.). Florida. Dr. Wm. Stimpson.
 32877. Quahog—round clam (*V. mercenaria*, L.). Maine to Florida.
 32862. Ditto. (Var. *mortoni*.) Maine to Florida. Dr. Stimpson.
 32893. Ditto. Providence River, Rhode Island. Benj. Davis.
 32819. Ditto. "Snubnosed" var. Fire Island. B. J. M. Carley.
 32817. Ditto. Elongated var. Rockaway, N. J. B. J. M. Carley.
 32838. Ditto. Baratavia Bay, La. Gustav Kohn.
 32818. Ditto. Deformed specimens. Long Island Sound. B. J. M. Carley.
 —. Ditto. Specimens of shell polished. Jas. T. Ames.
 32889. "Hen clam" (*Pachyderma crassatelloides*, Conr.). California. W. H. Dall.
 32843. "Round clams" (*Saxidomus aratus*, Gld.). San Diego, Cal. H. Hemphill.
 32867. "Painted clam" (*Callista gigantea*, Ch.). South Carolina.
 32841. "Little Neck clams" (*Chione succincta*, Val.). San Diego, Cal. H. Hemphill.
 32842. Ditto. (*C. simillima*, Sby.). San Diego, Cal. H. Hemphill.

32846. Ditto. (*Tapes laciniata*, Cpr.). San Diego, Cal. H. Hemphill.
 32854. Ditto. (*T. staminea*, Conr.). Baulinas, Cal. H. Hemphill.
 32844. Ditto. Tomales Bay, Cal. H. Hemphill.
 32869. "Hen clam" (*Mactra solidissima*, Ch.). Massachusetts Bay. W. H. Dall.
 32870. Ditto. Shells utilized for catch-alls. Newport, R. I. N. C. Peterson.
 32888. Ditto. (*M. falcata*, Gld.). Alaska to California. W. H. Dall.
 32826. "Gapers" (*Schizothærus nuttalli*, Con.). Oregon. J. G. Swan.
 32852. Ditto. Baulinas, Cal. H. Hemphill.
 32874. Salmon tellen (*Macoma*, sp.). Florida. T. A. Conrad.
 32848. "Tellens" (*M. nasuta*, Conr.). San Francisco markets. H. Hemphill.
 32847. "Flat clam" (*Semele decisa*, Cpr.). San Diego, Cal. H. Hemphill.
 32909. "Razor-fish" (*Solen ensis*, L.). Cow Bay, New York. B. J. M. Carley.
 32881. Ditto. (*Siliqua patula*, Dixon.) Alaska to California. W. H. Dall.
 32955. "Soft-shelled clams" (*Mya arenaria*, L.). Cape Cod, Mass. E. G. Blackford.
 32829. Ditto. Oyster Bay, L. I. E. G. Blackford.
 32833. Ditto. Accidentally transplanted with young oysters to San Francisco Bay, where it now abounds greatly. Oakland, Cal. H. Hemphill.
 33094. Ditto. Bay of Fundy, N. S. G. F. Mathew.
 32850. Date-fish (*Platyodon cancellatus*, L.). Baulinas Bay, Cal. H. Hemphill.
 32856. Ditto. (*Zirphæa crispata*, L.). Baulinas, Cal. H. Hemphill.

B. Useful or ornamental bivalves other than those affording food:

a. Pearl-producing.

1. River mussels:

- 26092a. River mussel affording pearl-shell, illustrating application of raw material. Cincinnati, Ohio. D. H. Shaffer.
 26092. Carvings, from pearl-shell afforded by river mussels, for use as studs, buttons, pins, brooches, &c. Cincinnati, Ohio. D. H. Shaffer.
 26092b. Pearls derived from river mussels. Cincinnati, Ohio. D. H. Shaffer.
 —. A series of river mussels of various species, one valve polished, the other in its original condition in each case. Chicopee, Mass. Jas. T. Ames.
 25986 to 26010. Another series, both valves polished, from Dr. C. A. Miller, Cincinnati, Ohio, comprising the following species:
Unio rugosus, Barnes.
alatus, Say.
ornatus, Lea.
verrucosus, Barnes.
gibbosus, Barnes.
rectus, Lam.
cylindricus, Say.
pyramidatus, Lea.
tuberculatus, Barnes.
siliquoides, Barnes.
circulus, Lea.
anodontoides, Lea.
pustulosus, Lea.
cuneatus, Barnes, &c., &c.

2. Marine pearl-shells:

13507. American pearl-oyster (*M. fimbriata*). Panama. Col. Jewett.
 3624. Ditto. Illustrating formation of pearls. Panama. Col. Jewett.
 32836. Ditto. Gulf of California. J. Xantus.
 —. Ditto. Polished shell. Chicopee, Mass. Jas. T. Ames.
 32921. Ditto. Made into artificial fish-bait. Boston, Mass. Bradford & Anthony.
 32922. Ditto. Made into artificial minnow. Boston, Mass. Bradford & Anthony.
 —. Series of buttons, studs, stopper-caps, &c. Manufactured from, and showing application of American pearl-oyster shell. Furnished by A. B. De Frece & Co., 428 Broadway, New York.

b. Otherwise useful:

32869. "Hen clam" (*Macra solidissima*, Ch.). Shell used for scoops, milk-skimmers, and boat-bailers. Painted inside and used for catch-alls.
 29527. Basket. Made from Florida shells. E. F. Gilbert, Jacksonville, Fla.
 22210. Basket. Made from Florida shells. Mrs. C. E. Mott, Jacksonville, Fla.
 22209. Frame. Made from Florida sea-shells. Mrs. C. E. Mott, Jacksonville, Fla.
 22211. Easter Cross. Made from Florida shells. Mrs. C. E. Mott, Jacksonville, Fla.
 29526. Shell flowers. Made from Florida shells. E. F. Gilbert, Jacksonville, Fla.
 26595. "Coquina." Miscellaneous species broken up and cemented by surf action into a natural conglomerate, used for building stone or for making a superior kind of lime. Saint Augustine, Fla. G. Browne Goode.
 32839. "Cuneate clam" (*Gnathodon cuneatus*). Used largely for bait. Natural condition. Lake Pontchartrain, La. Gustav Kohn.
 32840. Ditto. Semi-fossil (in shell-heaps), used for macadamizing roads. Lake Salvador, La. Gustav Kohn.

C. Injurious bivalves:

a. Destroying submerged timber:

Specimens of wood showing ravages:

32982. Ship-worm (*Teredo* sp.). Bangor, Me. (Brig H. B. Emory.) C. H. Parker.
 32908. Ditto. In lignumvitæ wood. Gloucester, Mass. Samuel Elwell, jr.
 33106. Ditto. (*Teredo chlorotica*, Gld.) Wood's Holl, Mass. Vinal N. Edwards.
 33105. Ditto. (*Xylotrya fimbriata*, Jeffr.) Wood's Holl, Mass. Vinal N. Edwards.
 32984. Ditto. (*Teredo navalis*? L.) New Haven, Conn. A. E. Verrill.
 32902. Ditto. (*Teredo* sp.) Showing damage effected in white-pine wood in one year. Pier 44, North River, N. Y. W. T. Pelton.
 32901. Ditto. Showing damage to hard-pine wood effected in one year. Charleston, S. C. W. T. Pelton.
 32983. Ditto. Schooner Carrie Melvin; done in 6 weeks. Charleston, S. C. A. G. Hunt.

32815. Ship-worm. (*Teredo* sp.). Gulf coast. Dewey.
 32816. Ditto. Showing lining of tubes. Texas. Dr. Schott.
 19405. Ditto. (*Xylotrya* sp.) Coast of Oregon. J. G. Swan.

D. Prepared foods:

* Specimens of various brands of canned, preserved, and pickled shell-fish in manufacturers' packages:

26579. Pickled oysters (*Ostrea virginica*). Blue Point. B. J. M. Carley.
 26581. Pickled oysters (*Ostrea virginica*). Saddle Rocks. B. J. M. Carley, New York.
 25835. Fresh Cove oysters (*Ostrea virginica*). Kemp, Day & Co., New York.
 25844-54. Fresh Cove oysters (*Ostrea virginica*). Kemp, Day & Co., New York.
 25861-3. Spiced Cove oysters (*Ostrea virginica*), hermetically sealed. Kemp, Day & Co., New York.
 26577. Pickled Little Neck clams (*Mya arenaria*). B. J. M. Carley.
 26582. Pickled clams (*Venus mercenaria*). "Cow Bay." B. J. M. Carley.
 26642. The Farmers' Old Orchard Beach clams (Little Necks, star brand). Portland Packing Company, Portland, Me.
 26575. Pickled scallops (*Pecten irradians*). Oyster Bay. B. J. M. Carley.
 26580. Pickled mussels (*Mytilus edulis*). East River, N. Y. B. J. M. Carley, New York.
 25873. Scarboro' Beach clams (*Venus mercenaria*). Put up by Burnham & Morrill, Portland, Me. Kemp, Day & Co., New York.
 25864-6. Orchard Beach clams (*Venus mercenaria*). Kemp, Day & Co., New York.
 25867-9. Little Neck clams (*Mya arenaria*). Kemp, Day & Co., New York.
 25870-2. Little Neck clams (*Mya arenaria*). Put up by Bogart & Co., New York. Kemp, Day & Co., New York.
 24925. Little Neck clams (*Mya arenaria*). Wm. Underwood & Co., Boston, Mass.
 22235-6. Pickled Little Neck clams (*Mya arenaria*). Penobscot Bay. Castine Packing Company, Castine, Me.
 26752. Alden's granulated clams. Prepared by Alden Sea-Food Company. Sold by Lyon Manufacturing Company, New York. Presented by E. G. Blackford, New York.
 26753. Alden's granulated and concentrated clams (paper boxes). Prepared by Alden Sea-Food Company. Sold by Lyon Manufacturing Company, N. Y. Presented by E. G. Blackford, New York.

** Otherwise prepared.

5672. Dried siphons of *Schizothærus Nuttalli*. Prepared by the Puget Sound Indians, Wash. Ter. Dr. J. G. Suckley, U. S. Army.

CRUSTACEA.

Crustacea phyllopoda.

A. Useful; converted into fertilizers; carapax used as a scoop or boat-bailer:

2222. King crab, Horseshoe (*Limulus polyphemus*). Florida. F. B. Meek.
 2223. Ditto. Male and female. Cape May C. H., New Jersey. Thos. Beesley.
 2223. Ditto. Product "cancrine," prepared fertilizer. Cape May C. H., New Jersey. Thos. Beesley.

Crustacea isopoda.

A. Useful; by removing wrecks or snags.

B. Injurious; by destroying submerged timber.

2286. Wood-eater (*Limnoria lignorum*, White). San Diego, Cal. H. Hemphill.

2254. Ditto. New Haven, Conn. A. E. Verrill.

a. Wood showing ravages:

2240. Eastport, Me. U. S. Fish Commission.

2290. Wood's Holl, Mass. Vinal N. Edwards.

2221. San Diego, Cal. H. Hemphill.

Crustacea stomatopoda.

Available for food:

2253. Squill (*Squilla empusa*, Say). Long Island Sound. U. S. Fish Commission.

2268. Southern squill (*Coronis glabriuscula*, Stm.). Galveston, Texas. M. Wallace.

Crustacea decapoda.—LOBSTERS, SHRIMP, CRAWFISH, CRABS.

A. Useful; food-supplying:

2263. River shrimp (*Palæmon* sp.). New Orleans, La. Gustav Kohn.

2264. Ditto. (*Pal. ohionis*, Smith.) New Orleans, La. Gustav Kohn.

2269. Ditto. (*Palæmon*?) Isthmus of Panama. Dr. Bransford.

2252. Sea shrimp (*Palæmonetes vulgaris*, Stm.). Long Island Sound. U. S. Fish Commission.

2211. Shrimp (*Pandalus Danaë*, Stm.), as dried for export by Californian Chinese. San Francisco, Cal. H. Hemphill.

2220. Ditto. (*Hippolyte brevirostris*, Dana.) San Francisco, Cal. H. Hemphill.

2219. Ditto. (*Crangon franciscorum*, Stm.) San Francisco, Cal. H. Hemphill.

2251. Ditto. (*Crangon vulgaris*, Fbr.) New England coast. U. S. Fish Commission.

2267. River crawfish (*Astacus oregonensis*, Nutt.). California. J. R. Scupham.

2261. Ditto. (*Cambarus Clarkii*, Gir.) New Orleans, La. Gustav Kohn.

2265. Ecrevisse (*Cambarus affinis*, Er.). Potomac River, Va. J. W. Milner.

2280. Lobster (*Homarus americanus*, Edw.). New York. E. G. Blackford.

2250. Ditto. Series showing young stages. Vineyard Sound, Mass. U. S. Fish Commission.

2241. Ditto. Young specimens, dry. Massachusetts Bay. U. S. Fish Commission.

2212. Ditto. Claws of extraordinary size. Massachusetts Bay. Amos Lawrence.

2213. Ditto. Remarkably abnormal claws. Newport, R. I. J. H. Clarke.

2214. Ditto. Noank, Conn. T. & E. H. Potter.

— Pincushion, showing application of lobster-claws. Wellfleet, Mass. Miss Anabel Stone.

2215. Prawn; Sea crawfish (*Panulirus interruptus*, Ran.). Santa Barbara Channel, Cal. H. Hemphill.

2248. Crab (*Platyonichus ocellatus*, Latr.). Vineyard Sound, Mass. U. S. Fish Commission.
2256. Ditto. (*Panopeus Herbstii*, Edw.) New Orleans, La. Gustav Kohn.
2247. Ditto. (*Carcinus mænas*, Leach.) New Haven, Conn. A. E. Verrill.
2243. "Soft-shelled" (in certain stages only) crab (*Callinectes hastatus*, Say). Vineyard Sound, Mass. U. S. Fish Commission.
2249. Ditto. Long Island Sound. U. S. Fish Commission.
2218. Kelp-crab (*Episthus productus*, Randall). Monterey, Cal. H. Hemphill.
2244. Crab (*Cancer borealis*, St.). Casco Bay, Maine. U. S. Fish Commission.
2242. Common crab (*Cancer irroratus*, Say). Casco Bay, Maine. U. S. Fish Commission.
2245. Ditto. Vineyard Sound, Mass. U. S. Fish Commission.
2217. Scalloped crab (*Cancer antennarius*, Stm.). San Francisco, Cal. H. Hemphill.
2216. Market crab (*Cancer magister*, Dana). San Francisco, Cal. H. Hemphill.

B. Commensal with other food supplies:

2266. Oyster-crab (*Pinnotheres ostreum*, Say). Commensal with all southern oysters and with northern-oysters in northern rivers where the southern oysters have been long planted. New York. E. G. Blackford.
2272. Ditto. Commensal on the western coast with *Pachydesma* and *Mytilus californianus*. San Diego, Cal. H. Hemphill.

C. Injurious by burrowing into and weakening levees and dams:

2261. Crawfish (*Cambarus Clarkii*, Gir. and most other species). New Orleans, La. Gustav Kohn.
2259. Fiddler-crab (*Gelasimus pugnax*, Smith). New Orleans, La. Gustav Kohn.

D. Prepared foods:

Canned lobster and crabs in manufacturers' packages:

- 25836-43. Canned lobster (*Homarus americanus*). Kemp, Day & Co., New York.
22237. Canned lobster (*Homarus americanus*). Castine, Me. Castine Packing Company.
26643. Fresh star-lobster (star brand). Portland Packing Company, Portland, Me.
26651. Fresh star-lobster (star brand). Portland Packing Company, Portland, Me.
24926. Fresh lobster (*Homarus americanus*). Wm. Underwood & Co., Boston, Mass.
25834. Canned lobster (*Homarus americanus*). Kemp, Day & Co., New York.
24933. Original deviled lobster (*Homarus americanus*). Wm. Underwood & Co., Boston, Mass.
26578. Pickled lobsters (*Homarus americanus*). Cape Cod. B. J. M. Carley, New York.
26576. Pickled prawns. Savannah, Ga. B. J. M. Carley.

Cirripedia.

Injurious:

- a.* By dulling the edge of knives and spades employed in
“cutting in” whale blubber:

2270. Whale barnacle (*Coronula diadema*, Lam.) on dried skin of “hump-back” whale. New England coast. U. S. Fish Commission.

- b.* By obstructing the progression of vessels upon which they affix themselves:

2271. Barnacles (*Balanus rugatus*, &c.). California. H. Hemphill.

ANNULOSA.

Annelida.—WORMS AND LEECHES.

A. Useful:

1. In surgery and medicine:

3226. Leech (*Macrobdella decora*, Verrill). New Haven, Conn. A. E. Verrill.

3227. Ditto. (*Macrobdella* sp.) Mountain Lake, Cal. H. Hemphill.

2. For bait in fishing:

3228. Earthworm (*Lumbricus terrestris*, L.). Washington, D. C. W. Palmer.

3229. Sea-worm (*Nereis* sp.?). San Francisco, Cal. H. Hemphill.

3. For food:

19713. Dried worms (*Ephydra* sp.). Prepared for food by the Monachee Pi-Ute Indians. Owen's Lake, Cal. Stephen Powers.

19714. Dried worms. Used in making soup by the Monachee Pi-Ute Indians. Owen's Lake, Cal. Stephen Powers.

B. Injurious:

1. By boring into and destroying oyster-shells:

32963a. Oyster-shell, showing ravages (of *Heteronereis*?). South Norwalk, Conn. Hoyt Brothers.

NOTE.—Insects and larvæ, commonly called worms, affecting chiefly agricultural interests, are not here included.

RADIATA.

Radiates.—SEA-URCHINS, STARFISH, CORALS, MEDUSÆ, ETC.

N. B. Strictly ornamental corals and gorgonias, having no special useful application, have, for the same reasons which necessitated the exclusion of the solely ornamental shells, been here omitted.

A. Useful:

1. Food-producing:

3226. Trepang; Bêche-de-mer (*Holothuria* sp.?). San Diego, Cal. H. Hemphill.

3212. Sea-urchin (*Strongylocentrotus dræbachiensis*). New England coast.
U. S. Fish Commission.
3146. Ditto. (*Toxopneustes* sp.) Southern United States. Dr. William Stimpson.
3145. Ditto. (*T. franciscorum*, Ag.) Alaska to California. F. Bischoff.

B. Injurious:

1. Destroying oysters, clams, &c.:

3214. Starfish (*Asterias vulgaris*, Stm.). Portland, Me. U. S. Fish Commission.
3149. Ditto. (*Ast. arenicola*, Stm.) Massachusetts Bay. Dr. William Stimpson.
3213. Ditto. Long Island Sound. U. S. Fish Commission.
3150. Ditto. South Norwalk, Conn. Hoyt Brothers.
3151. Ditto. In act of destroying oysters. South Norwalk, Conn. Hoyt Brothers.

2. By their urticating powers annoying bathers and "fouling" nets and fishing lines with slime—various *Acalephs*.

PROTOZOA.

Protozoans.—SPONGES, ETC.

Useful:

1. For conveyance of fluids requiring an elastic and temporary menstruum, and as a detergent:

3210. Sponge (on bougie). Boston, Mass. J. A. Levey.
- 3206-9. Sponge (*Spongia barbara*, D. & M.). Florida Keys and Bahamas. Isaacs & Co., sponge-dealers, New York.
3205. Ditto. (*Spongia graminea*, Hyatt). (Prepared by cleansing for use.) Key West. Boston Soc. Nat. Hist.
- 3203-4. Ditto. (Dried in natural condition.) Key West. Boston Soc. Nat. Hist.
- 3152-3. } Ditto. (*S. dura*, var. *densa*, Hyatt.) Florida Keys. Isaacs & Co.
3167. }
- 3154-66. Ditto. (*S. dura*, var. *gravida*, Hyatt.) Florida Keys. Isaacs & Co.
3172. Ditto. Dried in natural state. (*Aplysina aurea*, Hyatt.) Bahamas. Boston Soc. Nat. Hist.
- 3168-71. Ditto. (Cleansed.) (*S. dura*, var. *punctata*, Hyatt.) Florida Keys. Isaacs & Co.
3177. Ditto. (Dried in natural state.) (*S. cerebriformis*, Hyatt.) Key West. Boston Soc. Nat. Hist.
- 3173-76. Ditto. (Cleansed.) Key West and Bahamas. Isaacs & Co.
- 3178-9. Ditto. (*S. tubulifera*, Lam.). Florida and Bahamas. Isaacs & Co.
- 3180-85. Ditto. (*S. tubulifera*, var. *rotunda*, Hyatt.) Florida Keys and Bahamas. Isaacs & Co.
3186. Ditto. (Dried in natural condition.) Florida Keys. Boston Soc. Nat. Hist.

- 3189-90. Ditto. (Cleansed.) (*S. tubulifera*, var. *disciformis*, Hyatt.) Florida Keys and Bahamas. Isaacs & Co.
- 3192-96. Ditto. (*S. gossypina*, D. & M., var. *hirsuta*.) Florida Keys and Bahamas. Isaacs & Co.
3197. Ditto. (*S. gossypina*, var. *dendritica*.) Florida Keys and Bahamas. Isaacs & Co.
- 3198-3202. Ditto. (*S. gossypina*, var. *porosa*.) Florida Keys and Bahamas. Isaacs & Co.

2. Useful as an elastic medium or absorbent:

- 3213a. Sponge prepared for use as lint in surgery. Wm. B. Moses, Washington, D. C.
3211. Ditto. For stuffing cushions and packing. Florida. Jas. Richardson.
- 3212a. Ditto. Prepared for stuffing cushions, mattresses, &c. Florida. Wm. B. Moses, Washington, D. C.

Injurious:

1. By destroying oysters:

3215. Boring sponge (*Cliona sulphurea*, Verrill). Mature form, after oyster-shell has disintegrated. Vineyard Sound, Mass. U. S. Fish Commission.
32979. Boring sponge. Shells of *Pecten* showing ravages. Castine, Me. A. R. Crittenden.
32980. Ditto. Castine, Me. L. J. Heath.
32820. Ditto. Showing effect on oyster-shell. New York Bay. B. J. M. Carley.
3147. Ditto. Showing various stages in shell. Shrewsbury River, N. J. B. J. M. Carley.

Rhizopods.

Useful; the fossil forms being largely employed as a polishing powder under the name of "Tripoli" or "infusorial earth"; as a menstruum for nitro-glycerine, in the manufacture of dynamite and other explosives; and also in the manufacture of "stone china" and pottery. The valuable quality in nearly all cases is the contained silica.

MISCELLANEOUS PRODUCTS OF SEA OR SHORE, NOT OF AN ANIMAL NATURE.

Plants:

a. Lichens:

29316. Orchilla (*Rocella tinctoria*), in its natural condition as gathered from rocks and branches of plants. West coast of North America. W. A. Ross & Bro., New York.
29313. "Archil liquor," derived from Orchilla, and extensively used as a dye-stuff. West coast of North America. W. A. Ross & Bro., New York.

29314. "Cudbear." Product of a lichen (*Lecanora*), extensively applied as a dye-stuff. Western coast of North America. W. A. Ross & Bro., New York.

b. Algæ:

1. Having economical applications:

**Available as food.*

- Irish moss (*Chondrus crispus*, L.), affording gelatine. New England coast. Dr. W. G. Farlow.
- Western dulse (*Schizymenia edulis*, Ag.). West coast United States. Rev. E. Hall.
- Dulse (*Rhodymenia palmata*, Grev.), used for food. New England coast. Dr. W. G. Farlow.
- Laver (*Porphyra vulgaris*, Ag.), used for food. New England coast. Dr. W. G. Farlow.
- Badderlocks (*Alaria esculenta*, Grev.). Available for food. Cape Cod northward.

****Employed in the manufacture of fertilizers, iodine and bromine, or "artificial staghorn" (*Laminaria*) articles.**

- Rockweed (*Fucus vesiculosus*, L. & C.). New England coast. Dr. W. G. Farlow.
 - Bull-head kelp (*Nereocystis Lütkeana*, P. & M.). Stems made by Indians into fishing-lines. Northwest coast of America. W. H. Dall.
 - Specimens of lines made of this material. [See ethnological and fishing-implement series.]
29373. Devil's apron (*Laminaria digitata*), dried stems for making "tents." Newfoundland. Dr. E. R. Squibb.
- 29373a. "Sponge tents" used in surgery, made from dried *Laminaria* stems.
- 29373b. Paper-knife, made of "artificial staghorn" or dried *Laminaria* (*longicruris*), by J. H. Batchelder, Cambridge, Mass.

2. Ornamental algæ:

The following series, prepared by Dr. W. G. Farlow, comprises specimens collected by Mr. F. W. Hooper and Dr. Palmer, at Key West; by Dr. Farlow on the New England coast; by Prof. D. C. Eaton from various sources; by A. R. Young, at New York; Mrs. A. S. Davis, at Cape Ann; Mrs. Beebe, at Gloucester, Mass.; Mrs. B. D. Halstead, at Swampscott; Mr. H. Averill, at New York; Dr. L. R. Gibbes, in South Carolina; Miss M. A. Booth, at Orient, L. I.; and from California and Oregon by Dr. C. L. Anderson, Capt. I. Stratton, Rev. E. Hall, Mr. H. Hemphill, D. Cleveland, and Mr. W. H. Dall:

- AMANSIA MULTIFIDA, Lmx. Key West.
- DASYA GIBBESII, Harv. Key West.
- DASYA ELEGANS, Ag. *Chenille*. Cape Cod.
- DASYA RAMOSISSIMA, Harv. Key West.
- DASYA HARVEYI, Ashmead. Key West.
- DASYA MOLLIS, Harv. Key West.
- DASYA MUCRONATA, Harv. Key West.
- DASYA WURDEMANNI, Bailey. Key West.
- DASYA CALLITHAMNION, Harv. San Diego.

- DASYA TUMANOWICZI, Gatty. Key West.
 DASYA LOPHOCLADOS, Mont. Key West.
 DASYA PLUMOSA, Bail. and Harv. Santa Cruz, Cal.
 BOSTRYCHIA MONTAGNEI, Harv. Key West.
 BOSTRYCHIA CALAMISTRATA, Mont. Key West.
 BOSTRYCHIA MORITZIANA, Mont. Florida.
 POLYSIPHONIA URCEOLATA, Grev. Nahant, Mass. Var. *formosa*, New England.
 POLYSIPHONIA HAVANENSIS, Mont. Var. *Binneyi*, Ag., Key West.
 POLYSIPHONIA FERULACEA, Ag. Key West.
 POLYSIPHONIA OLNEYI, Harv. *Dough-balls*. Long Island Sound.
 POLYSIPHONIA HARVEYI, Bail. *Nigger-hair*. Wood's Holl, Mass.
 POLYSIPHONIA ELONGATA, Grev. *Lobster-claws*. Gay Head, Mass.
 POLYSIPHONIA VIOLACEA, Grev. Wood's Holl, Mass.
 POLYSIPHONIA FIBRILLOSA, Grev. Wood's Holl, Mass.
 POLYSIPHONIA VARIEGATA, Ag. Wood's Holl, Mass.
 POLYSIPHONIA PENNATA, Ag. California.
 POLYSIPHONIA PARASITICA, Grev. California. Var. *dendroidea*, Ag., California.
 POLYSIPHONIA BAILEYI, Ag. Pacific coast.
 POLYSIPHONIA PECTEN-VENERIS, Harv. Florida.
 POLYSIPHONIA ATRORUBESCENS, Grev. Wood's Holl, Mass.
 POLYSIPHONIA BIPINNATA, Post. and Rupr. West coast.
 POLYSIPHONIA WOODII, Harv. West coast.
 POLYSIPHONIA NIGRESCENS, Grev.
 POLYSIPHONIA FASTIGIATA, Grev. Nahant, Mass.
 ODONTHALIA ALEUTICA, Ag. Oregon.
 ODONTHALIA LYALLII, Harv. Neeah Bay, W. T.
 RHODOMELA LARIX, Ag. California.
 RHODOMELA FLOCCOSA, Ag. Aleutian Islands.
 RHODOMELA SUBFUSCA, Ag. Gloucester, Mass. Var. *gracilis*, same limits.
 Var. *Rochei*, Long Island Sound.
 DIGENIA SIMPLEX, Ag. Key West.
 BRYOTHAMNION TRIANGULARE, Ag. Key West.
 BRYOTHAMNION SEAFORTHII, Ag. Florida.
 ALSIDIUM BLODGETTII, Harv. Key West, Fla.
 ACANTHOPHORA THIERII, Lmx. Florida to Brazil; Pacific Ocean.
 ACANTHOPHORA MUSCOIDES, Ag. Florida.
 CHONDRIA DASYPHYLLA, Ag. Cape Cod.
 CHONDRIA STRIOLATA, Ag. (*C. Baileyana*, Mont.) Cape Cod.
 CHONDRIA TENUISSIMA, Ag. Wood's Holl, Mass.
 CHONDRIA LITTORALIS, Harv. Wood's Holl, Mass.
 CHONDRIA ATROPURPUREA, Harv. Key West, Fla.
 LAURENCIA PINNATIFIDA, Lmx. *Pepper-dulse*. California.
 LAURENCIA VIRGATA, Ag. California.
 LAURENCIA OBTUSA, Lmx. Florida.
 LAURENCIA IMPLICATA, Ag. Key West.
 LAURENCIA CERVICORNIS, Harv. Key West; San Diego, Cal.
 LAURENCIA GEMMIFERA, Harv. Florida.
 LAURENCIA PAPILLOSA, Grev. Florida.
 LAURENCIA PANICULATA, Ag. San Diego, Cal.
 CHYLOCLADIA OVALIS, Hook. (*Lomentaria*, Endl.) California.
 GRINNELLIA AMERICANA, Harv. Wood's Holl, Mass.
 DELESSERIA SINUOSA, Lmx. Gloucester, Mass.
 DELESSERIA QUERCIFOLIA, Bory. California.

- DELESSERIA ALATA, Lmx. Gloucester, Mass.
 DELESSERIA HYPOGLOSSUM, Larmx. Chleston, S. C.
 DELESSERIA TENUIFOLIA, Harv. Key West.
 DELESSERIA INVOLVENS, Harv. Key West.
 DELESSERIA LEPRIEURII, Mont. New York.
 DELESSERIA DECIPIENS, Ag. West coast. Neeah Bay, W. T.
 NITOPHYLLUM PUNCTATUM, var. *ocellatum*, Grev. Key West.
 NITOPHYLLUM SPECTABILE, Eaton, mss. California.
 NITOPHYLLUM LACERATUM, Grev. California.
 NITOPHYLLUM LATISSIMUM, Ag. California.
 NITOPHYLLUM AREOLATUM, Eaton, mss. California.
 NITOPHYLLUM (NEUROGLOSSUM) ANDERSONII, Ag. California.
 NITOPHYLLUM RUPRECHTIANUM, Ag. West coast.
 CALLIBLEPHARIS CILIATA, Kütz. Cape Ann, Mass.
 GRACILARIA MULTIPARTITA, Ag. Var. *angustissima*, Harv. New York.
 GRACILARIA CERVICORNIS, Ag. Key West.
 GRACILARIA CONFEROIDES, Grev. Florida; California.
 GRACILARIA ARMATA, Ag. Key West.
 CORALLINA OFFICINALIS, L. Cape Ann.
 CORALLINA SQUAMATA, Ellis and Sol. San Diego, California.
 JANIA RUBENS, Lmx. San Diego, California.
 JANIA CAPILLACEA, Harv. Key West.
 AMPHIROA FRAGILLISSIMA, Lmx. Florida.
 AMPHIROA NODULOSA, Kütz. Florida.
 AMPHIROA DEBILIS, Kütz. Florida.
 AMPHIROA CALIFORNICA, Decaisne. West coast.
 MELOBESIA FARINOSA, Lmx. East coast.
 MELOBESIA PUSTULATA, Lmx. Wood's Holl, Mass.
 LITHOTHAMNION POLYMORPHUM, Aresch. Eastport, Me.
 HILDENBRANDTIA ROSEA, Kütz. Eastport, Me.
 GELIDIUM CORNEUM, Lmx. Florida; New Haven, Conn.
 GELIDIUM CARTILAGINEUM, Grev. San Diego, Cal.
 GELIDIUM COULTERI, Harv. California.
 WURDEMANNIA SETACEA, Harv. Key West.
 EUCEUMA ISIFORME, Ag. Key West.
 EUCEUMA? ACANTHOCLADUM, Ag. (*Chrysymenia*, Harv.). Key West.
 HYPNEA MUSCIFORMIS, Lmx. Wood's Holl, Mass.
 HYPNEA CORNUTA, Ag. Key West.
 RHODYMENIA PALMATA, Grev. *Common dulce*. Swampscott, Mass.
 RHODYMENIA PALMETTA, Grev. California.
 RHODYMENIA CORALLINA, Grev. California.
 EUTHORA CRISTATA, Ag. Gloucester, Mass.
 PLOCAMIUM COCCINEUM, Lyngb. Var. *flexuosum*. West coast.
 STENOGRAMMA INTERRUPTA, Mont. California.
 PIKEA CALIFORNICA, Harv. California.
 CHAMPIA PARVULA, Harv. Noank, Conn.
 LOMENTARIA BAILEYANA, Farlow (*Chylocladia*, Harv.). New York Bay.
 LOMENTARIA ROSEA, Thuret. Gay Head, Mass.
 RHABDONIA TENERA, Ag. (*Solieria chordalis*, Harv.) Wood's Holl, Mass.
 RHABDONIA COULTERI, Harv. California.
 CORDYLOCLADIA CONFERTA, Ag. San Diego, Cal.
 POLYIDES ROTUNDUS, Ag. Cape Ann, Mass.
 PEYSSONNELIA ATRO-PURPUREA, Crouan?. Key West.
 NEMALION MULTIFIDUM, Ag. Watch Hill, R. I.
 SCINAIA FURCELLATA, Bivon. Gay Head, Mass.

- LIAGORA VALIDA, Harv. Florida.
 LIAGORA PINNATA, Harv. Florida.
 LIAGORA PULVERULENTA, Ag. Key West.
 WRANGELIA PENICILLATA, Ag. Key West.
 PHYLLOPHORA BRODLÆI, Ag. Long Island Sound.
 PHYLLOPHORA MEMBRANIFOLIA, Ag. Long Island Sound.
 GYMNOGONGRUS NORVEGICUS, Ag. (inc. *G. Torreyi*, Ag.). Peak's Island, Me.
 GYMNOGONGRUS TENUIS, Ag. California.
 GYMNOGONGRUS GRIFFITHSIÆ, Ag. California.
 GYMNOGONGRUS LINEARIS, Ag. California.
 AHNFELTIA GIGARTINOIDES, Ag. West coast.
 AHNFELTIA PLICATA, Fr. Cape Ann, Mass.
 CYSTOCLONIUM PURPURASCENS, Kütz. Block Island, New York.
 CALLOPHYLLIS VARIEGATA, Ag. California.
 CALLOPHYLLIS OBTUSIFOLIA, Ag. San Diego, Cal.
 CALLOPHYLLIS DISCIGERA, Ag. California.
 GIGARTINA ACICULARIS, Lmx. Florida.
 GIGARTINA CANALICULATA, Harv. West coast.
 GIGARTINA MAMILLOSA, Ag. Portland, Me.; Santa Cruz, Cal.
 GIGARTINA MICROPHYLLA, Harv., and var. *horrida*. California.
 GIGARTINA RADULA, Ag. West coast.
 CHONDRUS CRISPUS, Lyngb. *Irish moss*. Cape Ann, Mass. Very common.
 CHONDRUS AFFINIS, Harv. California.
 IRIDÆA LAMINARIOIDES, Bory. (including *Iridæa minor* and *Iridæa dichotoma*).
 West coast.
 ENDOCLADIA MURICATA, Ag. West coast.
 CRYPTONEMIA CRENULATA, Ag. Key West.
 CHRYSYMENIA HALYMENIOIDES, Harv. Key West.
 CHRYSYMENIA UVARIA, Ag. Key West.
 HALYMENIA LIGULATA, Ag. Var. *Californica*; Santa Cruz, Cal.
 HALYMENIA FLORESIA, Ag. Key West.
 PRIONITIS LANCEOLATA, Harv. West coast.
 PRIONITIS ANDERSONII, Eaton, mss. Santa Cruz, Cal.
 SCHIZYMENIA EDULIS, Ag. Oregon.
 SCHIZYMENIA? COCCINEA, Harv. Santa Cruz, Cal.
 GRATELOUPIA GIBBESII, Harv. Charleston, S. C.
 GRATELOUPIA CUTLERIÆ, Kütz. California.
 GRATELOUPIA FILICINA, Ag. Florida.
 HALOSACCION HYDROPHORA, Ag. West coast.
 HALOSACCION FUCICOLA, Post. and Rupr. West coast.
 HALOSACCION RAMENTACEUM, Ag. Eastport, Me.
 SPYRIDIA ACULEATA, Kütz. Florida.
 SPYRIDIA FILAMENTOSA, Harv. Wood's Holl, Mass.
 MICROCLADIA COULTERI, Harv. West coast.
 MICROCLADIA CALIFORNICA, Farlow. California.
 MICROCLADIA BOREALIS, Rupr. West coast.
 CENTROCERAS CLAVULATUM, Ag. Key West.
 CENTROCERAS EATONIANUM, Farlow. West coast.
 CERAMIUM NITENS, Ag. Key West.
 CERAMIUM RUBRUM, Ag. East coast.
 CERAMIUM DESLONGCHAMPSII, Ch. Eastport, Me.
 CERAMIUM DIAPHANUM, Roth. California.
 CERAMIUM STRICTUM, Harv. New England.
 CERAMIUM YOUNGII, Farlow, mss. Canarsie, L. I.
 CERAMIUM TENUISSIMUM, Lyngb. Key West.

- CERAMIUM FASTIGIATUM, Harv. Southern New England.
 CERAMIUM ———. Key West.
 Ptilota Densa, Ag. California.
 Ptilota hypnoides, Harv. California.
 Ptilota plumosa, Ag. Var. *filicina*, west coast. Var. *serrata*. Eastport, Me., and Neeah Bay, W. T.
 Ptilota elegans, Bonnem. New York.
 Gloiosiphonia capillaris, Carm. Cape Ann, Mass.
 Crouania attenuata, J. Ag. Key West.
 Griffithsia bornettiana, Farl. Wood's Holl, Mass.
 Callithamnion tetragonum, Ag. Orient, L. I.
 Callithamnion baileyi, Harv. New York.
 Callithamnion ptilophora, Eaton, mss. California.
 Callithamnion borreri, Ag. New Haven, Conn.
 Callithamnion byssoideum, Arn. Long Island Sound.
 Callithamnion corymbosum, Ag. Beverly, Mass.
 Callithamnion versicolor, Ag., var. *seirospermum*, Harv. New York.
 Callithamnion plumula, Lyngb. Gay Head, Mass.
 Callithamnion heteromorphum, Ag., mss. California.
 Callithamnion americanum, Harv. New York.
 Callithamnion pylaisæi, Mont. Gloucester, Mass.
 Callithamnion floccosum, Ag. Var. *pacificum*, Harv. Neeah, Bay, W. T.
 Callithamnion cruciatum, Ag. New York.
 Callithamnion lejolisia, Farlow, mss. San Diego, Cal.
 Callithamnion turneri, Ag. New York.
 Callithamnion rothii, Lyngb. New England coast.
 Callithamnion roseum, Lyng. New York.
 Porphyra vulgaris, Ag. *Laver*. East coast.
 Bangia fuscopurpurea, Lyngb. East coast.
 Chantransia efflorescens, Thur. Gay Head, Mass.
 Chantransia virgatula, Thuret. Portland, Me.
 Erythrotrichia ceramicola, Aresch. Cape Ann, Mass.
 Padina pavonia, Lmx. *Peacock's-tail*. Key West, Fla.
 Zonaria lobata, Ag. Key West.
 Zonaria flava, Ag. San Diego, Cal.
 Taonia schröderi, Ag. Florida.
 Dictyota fasciola, Lmx. Florida; Mediterranean Sea.
 Dictyota dichotoma, D. C. Charleston.
 Dictyota ciliata, Ag. Key West.
 Dictyota kunthii, Ag. San Diego, Cal.
 Dictyota acutiloba, Ag. Key West.
 Sargassum vulgare, Ag. Atlantic Ocean.
 Sargassum bacciferum, Ag. *Gulf-weed*. Gulf Stream.
 Sargassum dentifolium, Ag. Key West.
 Sargassum agardianum, Farlow, mss. San Diego, Cal.
 Turbinaria vulgaris, Ag. Key West.
 Fucus fastigiatus, Ag. West coast.
 Fucus distichus, L. (*F. filiformis*, Gm.). Swampscott, Mass.
 Fucus furcatus, Ag. Marblehead, Mass.
 Fucus vesiculosus, L. *Rock-weed*. Swampscott, Mass.
 Fucus serratus, L. Nova Scotia.
 Nereocystis lütkeana, Post. and Rupr. *Great bladder-weed*. Monterey, Cal., and northward.
 Alaria esculenta, Grev. *Badderlocks*. *Henware*. Cape Cod.

- LAMINARIA SACCHARHINA, Lmx. *Devil's apron*; *Kelp*. New York, northward; west coast; Europe; Japan?.
- LAMINARIA LONGICRURIS, De la Pyl. *Devil's apron*; *Kelp*. New England.
- LAMINARIA FLEXICAULIS, Le Jolis. *Devil's apron*; *Kelp*. New England.
- AGARUM TURNERI, Post. and Rupr. *Sea-colander*. Nahant, Mass.
- STILOPHORA RHIZODES, Ag. Vineyard Sound.
- ASPEROCOCCUS SINUOSUS, Bory. Key West.
- ASPEROCOCCUS ECHINATUS, Grev. New England coast.
- HYDROCLATHRUS CANCELLATUS, Bory. Noank, Conn.
- RAFSIA VERRUCOSA, Aresch. Nahant, Mass.
- CHORDA FILUM, Stack. New York.
- CHORDARIA FLAGELLIFORMIS, Ag. Eastport, Me.
- CHORDARIA ABIETINA, Rupr. Santa Cruz, Cal.
- CHORDARIA DIVARICATA, Ag. Gloucester, Mass.
- CASTAGNEA VIRESCENS, Thuret. Wood's Holl, Mass.
- LEATHESIA TUBERIFORMIS, Gray. Watch Hill, R. I.
- ELACHISTA FUCICOLA, Fr. New England.
- MYRIONEMA STRANGULANS, Grev. Wood's Holl, Mass.
- MYRIONEMA LECLANCHERII, Harv. Gloucester, Mass.
- CLADOSTEPHUS SPONGIOSUS, Ag. Newport, R. I.
- CLADOSTEPHUS VERTICILLATUS, Ag. Gay Head, Mass.
- SPHACELARIA FUSCA, Ag. On *Amphiroa Californica*, San Diego, Cal.
- SPHACELARIA RADICANS, Ag. New England.
- ECTOCARPUS FIRMUS, Ag. (*E. littoralis*, Harv.). New England.
- ECTOCARPUS FARLOWII, Thuret. Peak's Island, Me.
- ECTOCARPUS SILICULOSUS, Lyngb. Charleston, S. C.
- ECTOCARPUS VIRIDIS, Harv. Orient, L. I.
- ECTOCARPUS FASCICULATUS, Harv. New England coast.
- ECTOCARPUS GRANULOSUS, Ag. Santa Cruz, Cal.
- ECTOCARPUS HOOPERI, Harv. Greenport, L. I.
- DESMARESTIA ACULEATA, Lmx. Eastport, Me.
- DESMARESTIA VIRIDIS, Lmx. New York.
- DESMARESTIA LIGULATA, Lmx. Monterey, Cal.
- PUNCTARIA LATIFOLIA, Grev., and var. *zosteræ*, Le Jolis. Eastport, Me.
- PUNCTARIA PLANTAGINEA, Grev. New England.
- PHYLLITIS FASCIA, Ktz. Eastport, Me.
- SCYTOSIPHON LOMENTARIUS, Ag. Eastport, Me.
- CAULERPA PROLIFERA, Lmx. Florida.
- CAULERPA CRASSIFOLIA, Ag., var. *Mexicana*. Florida.
- CAULERPA PLUMARIS, Ag. Florida.
- CAULERPA ASHMEADII, Harv. Key West.
- CAULERPA ERICIFOLIA, Ag. Florida.
- CAULERPA CUPRESSOIDES, Ag. Key West.
- CAULERPA LANUGINOSA, Ag. Key West.
- CAULERPA PASPALOIDES, Bory. Florida.
- CAULERPA CLAVIFERA, Ag. Florida.
- HALIMEDA OPUNTIA, Lmx. Florida.
- HALIMEDA TUNA, Lmx. Florida.
- HALIMEDA TRIDENS, Lmx. Key West.
- UDOTEA FLABELLATA, Lmx. Key West.
- UDOTEA CONGLUTINATA, Lmx. Key West.
- CODIUM TOMENTOSUM, Stack. Florida; var. *damæcornis*. West coast.
- CHLORODESMIS? Key West.
- BRYOPSIS PLUMOSA, Lmx. Eastern coast.
- BRYOPSIS HYPNOIDES, Lmx. Key West.

- VAUCHERIA PILOBOLOIDES, Thuret. Wood's Holl, Mass.
 DASYCLADUS OCCIDENTALIS, Harv. Florida.
 DASYCLADUS CLAVÆFORMIS, Ag. Key West.
 ACETABULARIA CREMULATA, Lmx. Florida.
 CYMOPOLIA BARBATA, Lmx. Key West.
 CHAMÆDORIS ANNULATA, Mont. Key West.
 PENICILLUS DUMETOSUS, Dne. Florida; West Indies.
 PENICILLUS CAPITATUS, Lmx. *Mermaid's shaving-brush.* Florida.
 BLODGETTIA? CONFERVOIDES, Harv. Key West.
 ANADYOMENE FLABELLATA, Lmx. Key West.
 DICTYOSPHERIA FAVULOSA, Dne. Key West.
 ASCOTHAMNION INTRICATUM, Kütz. Key West.
 ENTEROMORPHA INTESTINALIS, Link. New England.
 ENTEROMORPHA COMPRESSA, Grev. New England.
 ENTEROMORPHA CLATHRATA, Grev. New England coast.
 ULVA LATISSIMA, Linn. *Sea-lettuce.* New England coast.
 ULVA FASCIATA, Delile. California.
 CLADOPHORA MEMBRANACEA, Ag. Key West.
 CLADOPHORA RUPESTRIS, L. Cape Ann, Mass.
 CLADOPHORA ARCTA, Dillw. Cape Ann, Mass.
 CLADOPHORA LANOSA, Roth. Orient, L. I.
 CLADOPHORA UNCIALIS, Fl. Dan. New England coast.
 CLADOPHORA LÆTEVIRENS, Dillw. Key West, Fla.
 CLADOPHORA FRACTA, Fl. Dan. Eastern coast.
 CHÆTOMORPHA PIQUOTIANA, Mont. Cape Ann, Mass.
 CHÆTOMORPHA MELAGONIUM, Web. and Mohr. Cape Ann, Mass.
 CHÆTOMORPHA SUTORIA, Berk. Stonington, Conn.
 CHÆTOMORPHA BRACHYGONA, Harv. Key West.
 CHÆTOMORPHA TORTUOSA, Dillw. Eastport, Me.
 HORMOTRICHUM YOUNGANUM, Dillw. New England coast.
 LYNGBYA MAJUSCULA, Harv. Cape Cod.
 LYNGBYA FERRUGINEA, Ag. New England coast.
 LYNGBYA KÜTZUNGIANA, Thur. Eastern coast.
 CALOTHRIX CONFERVICOLA, Ag. East coast.
 CALOTHRIX SCOPULORUM, Ag. East coast.
 SPHÆROZYGA CARMICHAELII, Harv. Wood's Holl, Mass.
 PETROCELIS CRUENTA, Ag. Eastport, Me.
 SPIRULINA TENUISSIMA, Kütz. Eastport, Me.
 CHNOÖSPORA FASTIGIATA, Ag. San Diego, Cal.
 HORMACTIS FARLOWI, Bornet. East coast.

Inorganic materials:

- . Scouring-sand. Impure silex for domestic use. Alameda, Cal. H. Hemphill.
 —. Glassmaker's-sand. Pure silex. Isle of Shoals, N. H.

COMMERCIAL STATISTICS OF ANIMAL PRODUCTS IN THE UNITED STATES: A REVIEW OF A PORTION OF THE REPORT OF THE CHIEF OF THE BUREAU OF STATISTICS FOR THE FISCAL YEAR ENDING JUNE 30, 1877.

BY G. BROWN GOODE.

The following review of the character and commercial values of animal products used or produced in the United States is intended to supplement and explain in part the preceding "Catalogue of the collection illustrating the animal resources of the United States," made under the direction of the United States National Museum for the International Exhibition of 1876. The statistics have been arranged with a view to a concise exhibition of the extent and location of the trade in all substances of animal origin. The classification is uniform with that employed in the catalogue.

An attempt is made to show—

1. The amount of imports, the countries from which the products are imported, and the ports through which the import entries are chiefly made.

2. The domestic consumption of foreign products. The table of imports entered into consumption is more detailed than any of the others, and from this have been taken many statements which were not elsewhere given, as, for instance, the amounts of coral, whalebone, chemicals, and specimens of natural history.

3. The exports of domestic products, the ports from which they were chiefly shipped, and the countries to which they are sent.

4. The statistics of foreign exports or of the exports of products not directly of domestic origin.

No account has been made of the indirect and transshipment trade.

LIVING ANIMALS.

The total value of living animals brought into the United States does not fall far below \$2,200,000.

The value of the miscellaneous importations of living animals is placed at \$1,648,465. Of this amount Quebec, Ontario, &c., supply \$1,452,457, and Mexico \$129,897 (no doubt chiefly sheep), Nova Scotia and New Brunswick send \$30,124, Germany \$13,262, British Columbia \$13,762, England \$6,184. The remainder comes from the British East Indies (\$1,389), Cuba (\$818), Brazil (\$133), Scotland, Honduras, Belgium, Chili, China, France, Guiana, Colombia, and Uruguay. The latter countries probably send chiefly animals for menageries and gardens.

Animals for breeding purposes are imported to the amount of \$419,170. The larger proportion (\$291,960) comes from the British Provinces

through the Lake ports. New York, with its extensive shipments from Europe, receives the next proportionate share (\$111,501), then San Francisco (\$4,708), Boston (\$3,029), Baltimore (\$2,113), Philadelphia (\$519), and New Orleans (\$200).

The teams of emigrants have the right of free entry. The yearly return of entries is placed at \$26,070. The greater proportion (\$23,520) appears to come from the British Provinces through the Lake ports.

The imports of birds are valued at \$109,879. Of this amount, \$71,989 comes to New York, and consists principally, no doubt, of singing birds. The Provinces send \$38,328, probably, for the most part, fowls.

Leeches are imported to the amount of \$4,227. All come through New York, except \$133 worth through New Orleans.

The following table, compiled from the "Statement showing quantities and values of foreign merchandise entered into consumption in the United States during the fiscal year ended June 30, 1877, &c." (No. 20, pp. 446-505), while it necessarily does not tally with the figures already given, is instructive, since it shows in fuller detail the numbers and character of the imports of foreign animals:

Description of animal.	Number.	Value.
Horses	9, 240	\$602, 513
Cattle	31, 893	314, 094
Sheep	282, 432	674, 883
Hogs	4, 534	9, 876
Animals for breeding purposes	5, 370	416, 476
Fowls, land and water		36, 793
Birds		73, 187
Leeches		4, 288
Animals not elsewhere specified		27, 737
Total		2, 159, 847

The domestic exports of living animals are valued at \$3,306,308, as shown in the following table:

Description of animal.	Number.	Value.
Horses	2, 042	\$301, 134
Mules'	3, 441	478, 434
Horned cattle	50, 001	1, 593, 080
Sheep	179, 017	234, 480
Hogs	65, 107	699, 189
Total		3, 306, 308

The largest number of horses is shipped from New York (727), next from Brazos de Santiago, Tex. (363), Minnesota (196), San Diego, Cal. (195), Corpus Christi, Tex. (82), Puget Sound, Washington (66), San Francisco (52), and Baltimore (53). The horses shipped from San Francisco are most valuable, being worth \$500 on an average; those from New York \$150; those from Texas \$40.

The principal exports of horses are to Mexico (603) chiefly from Texas, Quebec, Ontario, &c. (391), the British West Indies and Honduras (232), Cuba (157), and the French West Indies and French Guiana (129).

Mules are shipped in the largest numbers from New York (2,058), New Orleans, La. (1,036), Brazos de Santiago, Tex. (116), Saluria, Tex. (92), and Galveston, Tex. (90). They are sent chiefly to the British West Indies and Honduras (1,541), Cuba (1,018), the French West Indies and Guiana (252), the Central American States (210), British Guiana (218), and Mexico (134).

Horned cattle are shipped chiefly from Texas (20,396), Key West, Fla. (9,071), Minnesota (6,615), New York (4,863), Huron, Mich. (4,748), Boston (1,566), Philadelphia (700), Puget Sound, W. T. (611), Detroit, Mich. (543), and San Diego, Cal. (685). They are sent chiefly to Cuba (27,388), Quebec, Ontario, &c. (12,020), England (4,991), Liberia (2,809), and to the British West Indies and Honduras (1,741), the Bermudas taking a large share of the latter.

Sheep are sent principally from Texas (108,747), California (53,438), Washington Territory (9,484), and New York (4,744), and find their way mostly to Mexico (161,549), British Columbia (9,484), British West Indies, (2,299), England (2,692), and Quebec, &c. (1,003). It is sufficiently evident that Texas and California send to Mexico, Washington Territory to British Columbia, and New York and the Atlantic ports to England and the West Indies.

Hogs are exported largely from Detroit, Mich. (34,504), Huron, Mich. (28,508), and Minnesota (339); also, from Puget Sound, W. T., to the British Provinces. Key West, Fla., sends about 230 to Cuba, and Texas 348 to Mexico.

There is a foreign export of living animals to the value of \$22,970, chiefly to England (\$12,136) and the British West Indies (\$8,176). It is chiefly from New York (\$20,722).

FOOD PRODUCTS, EXCEPT FISH.

The import entries of food products are placed at \$724,452. New York is the chief receptacle of these imports (\$508,905), followed by the ports on the Canadian border (\$173,007), San Francisco (\$53,760), Philadelphia (\$32,111), New Orleans (\$7,400), Boston (\$5,253), and Key West, Fla. (\$2,336).

The receipts from Canada (\$113,191) correspond nearly to the amount given for the northern border ports, those from China (\$43,331) to the entries of San Francisco, and those from Cuba (\$2,846) to the entries of Florida. New York and Philadelphia receive nearly all the remainder, which is principally sent by Germany (\$325,693), England (\$65,164), France (\$63,119), Belgium (54,537), the Netherlands (\$40,145), Italy (\$11,957), and Mexico (\$2,679).

The total value of the import of honey is \$61,205, of which New York receives the principal share (\$34,693), then New Orleans (\$13,483) and Boston (\$8,019).

Sausages, sausage-skins, and Bologna sausages are imported to the

value of \$83,187, of which New York receives over \$80,000 and New Orleans over \$1,300.

Condensed eggs come only to New York, which imports to the value of \$2,529.

Milk comes to the Lake ports to the value of \$2,062.

The quantities of each article entered into consumption are shown in the following table:

Articles.	Amount.	Value.
Beef.....pounds..	213,909	\$15,540 92
Mutton.....		2,413 80
Pork.....pounds..	42,418	3,111 70
Venison.....		824 66
Poultry.....		33,022 94
Salted tongues.....		112 00
Tripe.....		116 00
Sausage-skins.....		55,928 00
Bologna sausages.....		28,948 40
Bacon and hams.....pounds..	73,773	14,193 35
Prepared meats, game, and poultry, sealed or unsealed, in cans or otherwise.....		28,289 80
Lard.....pounds..	12,524	1,166 74
Extract of meat.....		38,124 00
Eggs.....dozens..	5,048,900	617,643 59
Eggs, condensed.....		1,873 00
Eggs, yolk of.....		203 00
Milk, plain.....		2,614 65
Milk, condensed or preserved.....		2,798 00
Cheese.....pounds..	2,719,451	464,001 23
Butter.....do.....	82,131	17,231 00
Honey.....gallons..	27,017	16,473 50

The following tables show the imports of eggs by countries, and the corresponding entries by customs-districts.

Countries.	Eggs.		Countries.	Eggs.	
	Dozens.	Dollars.		Dozens.	Dollars.
China.....	126,800	8,716	British Columbia.....	100	6
Hong-Kong.....	3,066	183	British West Indies and British Honduras.....	300	69
Nova Scotia, New Brunswick, &c.....	948,703	109,823	Total.....	5,048,271	617,622
Quebec, Ontario, &c.....	3,969,302	498,825			

Districts.	Eggs.		Districts.	Eggs.	
	Dozens.	Dollars.		Dozens.	Dollars.
Aroostook, Me.....	5,000	750	Newport, R. I.....	753,817	86,815
Boston and Charlestown, Mass.....	639,932	75,665	Norfolk and Portsmouth, Va....	934,427	108,320
Buffalo Creek, N. Y.....	1,325,608	180,222	Oregon, Oreg.....	45,347	4,818
Cape Vincent, N. Y.....	6,718	787	Pamlico, N. C.....	321,567	35,489
Champlain, N. Y.....	144,891	19,504	Pensacola, Fla.....	300	69
Cuyahoga, Ohio.....	25,539	2,595	Philadelphia, Pa.....	1,044	133
Detroit, Mich.....	77,019	9,038	Plymouth, Mass.....	3,200	383
Erie, Pa.....	918	107	Portsmouth, N. H.....	100	6
Frenchman's Bay, Me.....	10,269	1,096	Puget Sound, Wash.....	1,045	117
Genesee, N. Y.....	4,372	464	Richmond, Va.....	90	10
Georgetown, D. C.....	979	124	Saco, Me.....	126,800	8,716
Key West, Fla.....	1,665	208	Savannah, Ga.....	612,296	81,751
Michigan, Mich.....	118	24	Superior, Mich.....	100	10
Mobile, Ala.....	150	18	Vermont, Vt.....	3,066	183
Newark, N. J.....	70	8	Total.....	5,048,271	617,622
New Bedford, Mass.....	704	83			
New Orleans, La.....	1,120	109			

The amount of domestic exports is shown in the following table:

Articles.	Amount.	Value.
Beef, fresh.....pounds..	49, 210, 990	\$4, 552, 528
Beef, salted.....do.....	39, 155, 153	2, 950, 952
Mutton.....do.....	349, 368	36, 480
Pork.....do.....	69, 671, 894	6, 296, 414
Bacon and hams.....do.....	460, 057, 146	49, 512, 412
Preserved meats.....		3, 939, 977
Lard.....pounds..	234, 741, 223	25, 562, 665
Eggs.....dozens..	32, 591	8, 429
Condensed milk.....		123, 801
Cheese.....pounds..	107, 364, 666	12, 700, 627
Butter.....	21, 527, 242	4, 424, 616
Total.....		110, 108, 916

Fresh beef is shipped as follows:

Ports.	Amount.	Value.
New York.....pounds..	39, 230, 400	\$3, 608, 940
Philadelphia.....do.....	9, 896, 260	933, 249
Boston.....do.....	81, 000	10, 000
Portland.....do.....	3, 330	334
Total.....	49, 210, 990	4, 552, 523

All the fresh beef goes to England and Scotland. The former receives 39,906,940 pounds, valued at \$3,614,779, and the latter 9,304,050 pounds, valued at \$937,744.¹

Salted beef goes principally from New York, Philadelphia, Boston, Baltimore, San Francisco, Portland, and Brazos de Santiago, Tex., and is sent to almost every country, England (19,727,882 pounds), Scotland (5,887,774), the British West Indies (2,774,804), Germany (2,185,990), Nova Scotia and New Brunswick (1,297,662), and British Guiana (1,042,150) receiving the largest proportion.

Mutton goes from New York to England (219,928 pounds) and Scotland (129,440).

Pork goes chiefly from New York (39,239,234 pounds), Boston (10,763,062), Huron, Mich. (7,748,660), Baltimore (3,961,045), Philadelphia (2,144,761), and Portland (2,930,359) to England (19,793,191), the British North American Provinces (17,990,540), the British West Indian Provinces (9,867,490), Scotland (2,847,346), Porto Rico (2,923,975), Germany (1,251,166), and the Dutch West Indies (1,126,169), as well as to all other quarters of the globe.

Bacon and hams go chiefly from New York (253,481,647 pounds), Boston (112,656,704), Philadelphia (72,738,161), Portland (10,541,136), Baltimore (6,146,098), and Huron, Mich. (2,275,004), to England (322,016,729), Scotland (31,193,969), Belgium (30,846,038), Germany (23,715,093), France (23,167,236), Cuba (10,813,912), Sweden and Norway (5,278,228), Netherlands (4,442,709), the British Provinces (3,632,464), the British West

¹The Journal of the Royal Agricultural Society of England (1877) states the import of fresh beef from New York and Philadelphia in the first four months of 1877 (22,812,128 pounds) to have exceeded the whole import of the preceding year (19,838,895 pounds).

Indies (1,241,484), Spain (1,004,849), and in smaller quantities to almost every other country.

Preserved meats go chiefly from New York (\$3,066,538), Galveston, Tex. (\$359,063), Boston (\$186,013), Oregon (\$115,321), and San Francisco (\$114,531) to England (\$2,189,688), Scotland (\$1,222,285), Germany (\$159,059), France (\$126,619), and the British West Indies (\$46,480).

Lard goes chiefly from New York (166,924,255 pounds), Boston (29,380,349), Philadelphia (11,682,146), Baltimore (11,672,057), Portland (7,744,890), and Huron, Mich. (5,425,731), to England (66,196,750), Scotland (58,038,751), Belgium (23,882,271), France (23,788,669), Cuba (21,665,367), Scotland (8,096,852), British Provinces (6,115,553), Netherlands (5,597,166), United States of Colombia (4,549,995), Brazil (4,267,310), Venezuela, Spanish Africa, Hayti, and numerous other countries.

Eggs go from New York (12,211 dozens), Washington Territory (8,971), and the Canadian boundary (9,359) to the British Provinces (18,895), England (4,200), and Porto Rico (9,024).

Condensed milk goes from New York (\$94,246), San Francisco (\$24,606), and Baltimore (\$1,325) to the British possessions in Australasia (\$37,509), England (\$30,727), Japan (\$12,984), British West Indies (\$8,592), China (\$8,196), Cuba (\$4,746), Brazil (\$2,495), British Columbia (\$2,465), Central America (\$1,754), and Hayti (\$1,248).

Cheese goes chiefly from New York (103,251,661 pounds), Philadelphia (1,456,868), Boston (1,172,522), and Huron, Mich. (1,116,320), to England (95,871,379), Scotland (1,100,099), and the English colonies, with small quantities to other countries.

Butter goes chiefly from New York (16,771,663 pounds), Boston (2,284,619), and Philadelphia (1,141,224) to England (10,504,640), Scotland (4,526,737), the British West Indies (1,277,945), Scotland (1,237,978), the British Provinces, Cuba, Porto Rico, Hayti, the Netherlands, Colombia, Venezuela, and the Danish West Indies.

The foreign exports of provisions amount to \$64,478, chiefly from New York to England, Cuba, Mexico, British Columbia, Central and South America.

FISH.

The quantity of fish imported not subject to duty is shown in the following table. The total value is \$1,400,736.

Countries.	Fresh, of all kinds.		Herring, pickled.		Mackerel, pickled.		All other.
	Pounds.	Dollars.	Barrels.	Dollars.	Barrels.	Dollars.	Dollars.
Nova Scotia, New Brunswick, &c	4,584,678	128,660	49,033	152,293	43,053	372,127	512,047
Quebec, Ontario, &c	2,570,033	94,780	2,218	13,242	13	133	27,337
British Columbia	1,270	58					
Newfoundland and Labrador	630,000	12,600	12,029	45,251			180
Hayti							392
Mexico							294
	7,735,981	236,098	63,280	210,786	43,066	372,260	540,300

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The remainder of the import subject to duty is shown in the next table. The total value is \$1,054,748.

Countries.	Sardines and anchovies, preserved in oil or otherwise.		Herring, pickled.		Mackerel, pickled.		All other.
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	
Belgium		20	167	2,368			16
China							47,089
Hong-Kong							761
France		685,164					913
French Possessions							4
Germany		5,266	4,726	61,676			7,098
England		77,317	98	1,277			7,120
Scotland			49	698			169
Nova Scotia, New Brunswick, &c			84	568	8	105	335
Quebec, Ontario, &c		6	24	35	6	43	19,691
British Columbia							2,439
British West Indies and British Honduras							5
Hawaii							35
Italy		969					176
Japan							175
Mexico							1,101
Netherlands		4,464	9,476	121,254			1,977
Spain		42					63
Cuba		83	2	22			1,356
Sweden and Norway			247	1,717			1,134
		773,331	14,873	189,615	14	148	91,654

The amounts of Canadian fish not liable to duty received in the various customs-districts are shown below:

Districts.	Fish, not of American fisheries.						
	Fresh, of all kinds.		Herring, pickled.		Mackerel, pickled.		All other, not elsewhere specified.
	Pounds.	Dollars.	Barrels.	Dollars.	Barrels.	Dollars.	
Baltimore, Md	1,500	85	1,884	7,605	38	314	392
Boston and Charlestown, Mass	473,556	15,465	46,150	157,108	34,730	300,690	176,147
Buffalo Creek, N. Y	378,869	13,154	328	1,862			
Cape Vincent, N. Y	474,798	15,433					
Champlain, N. Y	191,033	14,338	84	524	13	133	1,405
Cuyahoga, Ohio	12,720	509					
Detroit, Mich	652,703	19,084					
Erie, Pa	5,400	227					
Genesee, N. Y	36,240	1,443					
Gloucester, Mass			1,010	2,010			12,199
Huron, Mich	46,813	1,234	1,418	8,054			735
Key West, Fla							258
Machias, Me							116
Marblehead, Mass			6	12	4	15	99
Minnesota, Minn	200	10					
Newburyport, Mass							51
New York, N. Y	2,610,000	52,200	2,115	8,961	1,823	15,656	217,563
Niagara, N. Y	159,057	7,561					
Oswegatchie, N. Y	6,800	480					19
Oswego, N. Y	184,244	7,471					
Passamaquoddy, Me	1,331,353	63,844	6,726	9,885	4,974	44,031	55,320
Philadelphia, Pa							2,529
Portland and Falmouth, Me	747,579	9,676	2,661	11,163	1,480	11,405	87,721
Puget Sound, Wash	1,270	58					
Richmond, Va							24
Salem and Beverly, Mass			510	800	4	16	811
Sandusky, Ohio	212,540	3,545					
San Francisco, Cal							154
Savannah, Ga							50
Superior, Mich	118,614	2,459					830
Vermont, Vt	90,692	7,822	388	2,802			24,398
Waldoboro', Me							90
Willamette, Oreg							681
Total	7,735,981	236,098	63,280	210,786	43,066	372,260	581,592

The entries by customs-districts of fish not from Canada and dutiable are shown below:

Districts.	Fish, not of American fisheries.		Mackerel, pickled.		Sardines and anchovies preserved in oil.	All other, not elsewhere specified.
	Herring, pickled.					
	Barrels.	Dollars.	Barrels.	Dollars.	Dollars.	Dollars.
Baltimore, Md.....	338	2,686			309	869
Boston and Charlestown, Mass.....	2	28			43,130	29
Brazos de Santiago, Tex.....	1	12			417	186
Buffalo Creek, N. Y.....	21	21				2,952
Cape Vincent, N. Y.....						5
Champlain, N. Y.....	1	6				5
Cuyahoga, Ohio.....						20
Detroit, Mich.....						11,383
Galveston, Tex.....					1,682	
Genesee, N. Y.....						6
Huron, Mich.....	3	8	6	43	2	4
Key West, Fla.....					67	1,118
Michigan, Mich.....						52
New Orleans, La.....	45	770			65,188	4,554
New York, N. Y.....	14,428	185,926			578,923	11,379
Niagara, N. Y.....						4,464
Oswegatchie, N. Y.....						52
Philadelphia, Pa.....	34	158	8	105	1,475	1,083
San Diego, Cal.....						864
Sandusky, Ohio.....						238
San Francisco, Cal.....					82,134	51,085
Superior, Mich.....					4	310
Vermont, Vt.....						200
Willamette, Oreg.....						796
Total.....	14,873	189,615	14	148	773,331	91,654

The next table shows the amount of fish entered into consumption:

Description.	Quantity.	Dollars.
Fish, the product of the sea-fisheries of the Dominion of Canada, Newfoundland, &c., under treaty of May 8, 1871, act of March 1, 1875, and not dutiable:		
Fresh, for immediate consumption..... pounds..	13,453,033	315,858 10
Herring, pickled..... barrels.	61,791.50	207,090 55
Herring, dried or smoked..... boxes..	316,570.50	39,459 42
Mackerel, pickled..... barrels..	44,169.50	373,792 38
Salmon, pickled..... do..	21,677	62,393 00
Salmon, dried or smoked..... pounds..	37,069	3,704 00
Shell-fish and turtles.....		1,727 55
Other fish, pickled..... barrels..	16,004.25	90,796 00
Other fish, dried or smoked..... pounds..	5,645,357	229,061 00
Prepared or preserved in cans, or otherwise than in oil.....		19,233 76
Fish, dutiable:		
Herrings, pickled or salted..... barrels..	14,907	190,431 00
Fish, in oil or preserved, except anchovies or sardines.....		15,996 00
Mackerel..... barrels..	8½	105 00
Other fish, pickled..... do..	385¼	2,458 00
Other fish, pickled..... pounds..	690,856	48,200 00
Fish prepared in cans.....		7,271 60
Pickled salmon..... barrels..	½	9 00
Sardines and anchovies, packed in oil or otherwise in tin boxes:		
Whole boxes, 5 × 4 × 3½ inches.....	3,813	2,338 00
Half boxes, 5 × 4 × 1½ inches.....	264,285	48,044 00
Quarter boxes, 4¾ × 3½ × 1½.....	7,985,401	661,597 25
In any other form.....		11,018 25
		722,997 50
Oysters, dried.....		13,447 00

The following table shows the amount of domestic exports of fish:

Description.	Quantity.	Dollars.
Fish, fresh		\$114, 338
Dried or smoked	pounds 15, 964, 800	791, 785
Pickled	do 76, 227	486, 738
Other, cured	do 234, 741, 233	25, 562, 665
Oysters		260, 660
		27, 456, 236

The following table shows the amount of exports by districts:

Districts.	Fish, dried or smoked.		Fish, fresh.	Fish, pickled.		Fish, other cured.	Oysters.	
	Cwt..	Dollars.	Dollars.	Barrels.	Dollars.	Dollars.	Bush.	Dolls.
Alaska, Alaska	13	66		2	16	142		108
Baltimore, Md	355	1, 395		670	4, 745	31, 521		27, 384
Bangor, Me	4	20				1, 046		
Bath, Me				361	696			
Belfast, Me	6	20	84	42	258	47		
Boston and Charlestown, Mass	78, 815	349, 408	222	26, 150	171, 078	117, 225		7, 115
Brazos de Santiago, Tex	31	362	143	3	31	242		593
Buffalo Creek, N. Y								2, 239
Cape Vincent, N. Y						60		3, 987
Champlain, N. Y				100	1, 000			14, 443
Corpus Christi, Tex	2	21						4
Cuyahoga, Ohio	1	15				17		50
Detroit, Mich	312	1, 260	2, 071			5, 021		4, 858
Duluth, Minn				1	7			
Galveston, Tex						13		
Genesee, N. Y		4					467	
Gloucester, Mass	90	200		11, 338	54, 016	391		
Huron, Mich						2, 491	468	
Key West, Fla			60, 200			13, 547		
Machias, Me	98	187						
Minnesota, Minn						1, 861	1, 921	837
New Bedford, Mass	67	329						
Newburyport, Mass	2, 371	9, 796						
New Haven, Conn	27	78						
New Orleans, La	36	195		9	68	2, 193	39	10
New York, N. Y	64, 002	368, 779		24, 357	188, 415	313, 642		
Norfolk, Va						19	164, 552	10, 297
Oregon, Oreg				299	2, 709	693, 125	320	
Oswegatchie, N. Y	12	72				2, 582		
Oswego, N. Y						500	21, 914	
Passamaquoddy, Me				2, 312	6, 000			
Pensacola, Fla				9	18	36	1, 049	792
Philadelphia, Pa				333	2, 415	191, 442		
Plymouth, Mass	1, 500	6, 000						
Portland, Me	2, 590	10, 845		8, 650	44, 155	25, 413	178	7
Providence, R. I	557	1, 942		2	19			
Puget Sound, Wash						108	1, 550	
Salem and Beverly, Mass	5, 643	20, 085	27	461	2, 960	82		
Saluria, Tex							1, 009	31, 343
San Francisco, Cal	448	3, 149		327	2, 607	1, 066, 435		5
Savannah, Ga	1	8	2	51	211			
Vermont, Vt	2, 667	17, 609	51, 589	118	621	9, 255	6, 169	
Willamette, Oreg				632	4, 693	7, 719	200	
Total	159, 648	791, 785	114, 338	76, 227	486, 738	2, 486, 225	260, 620	45, 361
Additions to Niagara and Vermont, taken from Canadian reports		189, 151					170, 610	3, 162
Grand total		980, 936					431, 230	48, 523

The following table shows the amounts of domestic exports of fish by countries :

Countries.	Fish, dried or smoked.		Fish, fresh.	Fish, pickled.		Fish, other cured.	Oysters.
	Cwt.	Dollars.	Dollars.	Barrels.	Dollars.	Dollars.	Dollars.
Argentine Republic							812
Belgium				6	60	779	12
Brazil				50	541	309	1,841
Central American States	195	1,316		121	857	5,039	240
Chili						3,429	2,555
China	45	343				2,572	
Denmark				2,312	6,000		
Danish West Indies	170	624		395	2,302	2,489	402
France						43,367	236
French West Indies and French Guiana ..	19,939	84,228	27	2,714	18,480	7,286	34
French Possessions in Africa and adjacent islands						612	
French Possessions, all other	22	163		270	2,197	13,653	50
Germany	86	380		170	1,042	72,536	18,420
Great Britain: England	242	912		746	4,151	1,587,457	118,634
Scotland				1,030	4,700	5,514	2,667
Nova Scotia, New Brunswick, and Prince Edward Island	9,592	41,352		2,046	12,137	50	5,093
Quebec, Ontario, Rupert's Land, and the Northwest Territory	2,992	18,900	53,660	219	1,628	21,787	56,516
British Columbia	87	696		2	16	2,453	1,849
Newfoundland and Labrador	70	350				220	68
British West Indies and British Honduras ..	5,084	27,769	86	5,540	33,066	25,289	1,491
British Guiana	940	4,886	222	1,478	9,289	1,090	809
Hong-Kong	104	689				291,606	38
British Possessions in Africa	815	3,474		81	866	341	183
British Possessions in Australasia				626	4,652	207,463	33,143
Hawaiian Islands	90	644		926	7,352	17,701	2,992
Hayti	62,387	372,025		29,737	225,949	31,344	482
Italy	10	60					
Japan	55	406				2,523	43
Liberia	371	1,238		430	3,117	3,048	
Mexico	42	443	143	4	43	5,967	3,494
Netherlands	1	7		6	56		72
Dutch West Indies	24,994	77,818		2,102	11,416	3,435	437
Peru	72	315				14,315	
Portugal				1	10	20	
Azore, Madeira, and Cape Verde Islands ..	611	3,295		13	141	360	
Portuguese Possessions in Africa and adjacent islands	22	90				66	
Russia, Asiatic						27	
San Domingo	3,490	19,503		2,112	16,534	6,757	14
Cuba	18,483	87,687	60,200	588	5,146	65,491	3,905
Porto Rico	5,729	24,077		1,258	8,137	8,112	145
Spanish Possessions in Africa and adjacent islands						384	
Sweden and Norway	196	760		20,516	101,492	4,400	
United States of Colombia	1,997	12,142		715	5,232	13,980	224
Uruguay						1,117	2,157
Venezuela	710	5,160		13	129	7,256	1,381
All other islands and ports, not elsewhere specified	5	33				4,551	181
Total	159,648	791,785	114,138	76,227	486,738	2,486,225	260,620
Additions taken from Canadian reports ..		189,151					170,610
Grand total		980,936					431,230

One thousand nine hundred and three barrels of pickled herring, valued at \$9,088, passed through Boston to Sweden and Norway as a foreign export.

Miscellaneous fish to the value of \$32,120 goes as foreign export to England (\$22,098), Nova Scotia and New Brunswick (\$5,795), the French West Indies (\$3,932), Quebec, Ontario, &c. (\$215), and Australasia (\$80). Of this amount Boston sends the most (\$31,905) and Portland the remainder (\$215).

The following table shows the foreign exports of fish:

Countries.	Fish, not of American fisheries.			
	Herring, pickled.		Sardines and anchovies, preserved in oil.	All other, not elsewhere specified.
	Barrels.	Dollars.	Dollars.	Dollars.
Central American States.....			1, 296	48
China.....				805
France.....			1, 811	2, 033
French Possessions, all other.....			630	7
Germany.....				636
Great Britain: England.....				33, 956
Nova Scotia, New Brunswick, and Prince Edward Island.....			193	666
Quebec, Ontario, Manitoba, Rupert's Land, &c.....			16, 930	
British Columbia.....			288	529
British West Indies and Honduras.....			187	
British Possessions: Hong-Kong.....				470
British Possessions in Australasia.....				4, 333
Hawaiian Islands.....				95
Mexico.....	2	22	2, 366	181
Peru.....				473
San Domingo.....			521	
Cuba.....			25	91, 489
United States of Colombia.....			56	133
Venezuela.....			477	
Total.....	2	22	24, 780	135, 854

FURS.

The value of the import of undressed fur-skins is shown in the next table:

Imports of fur-skins undressed.

Argentine Republic.....	\$38, 026
Belgium.....	2, 082
China.....	77
France.....	2, 696
French West Indies and French Guiana.....	204
Germany.....	82, 044
England.....	359, 351
Scotland.....	1, 922
Nova Scotia, New Brunswick, &c.....	3, 435
Quebec, Ontario, &c.....	789, 591
British Columbia.....	162, 558
Newfoundland and Labrador.....	72
British West Indies and British Honduras.....	270
British Possessions in Australasia.....	491
Japan.....	114, 657
United States of Colombia.....	4, 056
Uruguay.....	134
Total.....	1, 561, 666

The value of the imports of furs and dressed fur-skins is shown in the following table:

England.....	\$1, 085, 376
France.....	781, 769
Germany.....	378, 643
Quebec, Ontario, &c.....	76, 694
Belgium.....	60, 781
Sweden and Norway.....	8, 252
Scotland.....	5, 538
Netherlands.....	3, 319
United States of Colombia.....	375
Carried forward.....	2, 400, 747

Brought forward.....	\$2,400,747
Nova Scotia, New Brunswick, &c.....	281
British Possessions in Australasia.....	239
Russia on the Baltic and White Seas.....	178
China.....	115
Spain.....	63
Newfoundland and Labrador.....	52
Austria.....	43
British West Indies and British Honduras.....	38
Hong-Kong.....	17
Cuba.....	14
Total.....	2,401,778

Furs are imported chiefly to New York (\$2,142,947), Philadelphia (\$93,713), Boston (\$72,625), Montana and Idaho (from the Hudson's Bay Territory, of course) (\$69,051), and San Francisco (\$11,874).

The value of fur-skins and furs entered into consumption is shown in the following table:

Fur-skins of all kinds, not dressed in any manner.....	\$1,544,893 89
Furs, and manufactures of:	
Dressed, on the skin.....	1,044,930 23
Dressed, partially on the skin.....	198 10
Dressed, not on the skin, hatters', and others.....	1,229,322 64
Hares', undressed, and not on the skin.....	8,178 00
Hats, caps, muffs, and tippetts of fur, and all other manufactures of fur, or of which fur shall be the component of chief value...	97,942 87
Total.....	3,925,467 73

Sheep and lamb skins tanned with the wool on are imported to the Lake ports to the amount of \$22,232.

The domestic export of furs amounts to \$3,836,579. The amount of this export, by customs-districts, and by countries, is shown in the following table:

Districts.	Furs and fur-skins.	Countries.	Furs and fur-skins.
	Dollars.		Dollars.
Alaska, Alaska.....	20,900	Belgium.....	605
Baltimore, Md.....	16,300	France.....	8,397
Boston and Charlestown, Mass.....	138,468	Germany.....	1,099,380
Champlain, N. Y.....	28,640	Great Britain: England.....	2,606,252
Detroit, Mich.....	829	Scotland.....	2,200
Duluth, Minn.....	16	Nova Scotia, New Brunswick, and Prince Edward Island.....	1,250
Huron, Mich.....	600	Quebec, Ontario, Rupert's Land, and the Northwest Territory.....	32,044
New York, N. Y.....	2,777,050	British Columbia.....	37,617
Niagara, N. Y.....	210	British Possessions in Australasia.....	200
Oswegatchie, N. Y.....	1,728	Japan.....	437
Philadelphia, Pa.....	757,986	Netherlands.....	200
Puget Sound, Wash.....	16,707	Venezuela.....	219
San Francisco, Cal.....	29,337	Total.....	3,788,802
Vermont, Vt.....	21	Additions taken from Canadian reports.....	47,777
Willamette, Oreg.....	10	Grand total.....	3,836,579
Total.....	3,788,802		
Additions to Niagara and Vermont, taken from Canadian reports.....	47,777		
Grand total.....	3,836,579		

Fur-skins, undressed, are sent as foreign exports to the amount of \$118,089: to England \$105,020, Germany \$9,214, France \$3,227, and

Hong-Kong \$625. All passes through New York, except the Hong-Kong shipment, which goes through San Francisco.

There is also a foreign export of furs to the value of \$52,199: to Quebec, &c., \$37,518, England \$8,025, Mexico \$2,667, France \$2,136, and Germany \$1,296. It passes almost entirely through New York.

WOOL.

The importation of unmanufactured wool amounts to 42,171,192 pounds, valued at \$7,156,944. The value of manufactures of wool (exclusive of hats) is \$25,601,922. The details of this importation are given below:

Wool, sheep's, and hair of the alpaca, goat, and other like animals, and manufactures of.

Countries.	Unmanufactured.		Cloths and cassimeres.		Woolen rags, shoddy, mungo, waste, and flocks.		Shawls.		Blankets.		Carpets.		Dress-goods.		Hosiery, shirts, and drawers.		Other manufactures of, not elsewhere specified.	
	Pounds.	Dollars.	Dollars.	Dollars.	Pounds.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Sq. yards.	Dollars.	Sq. yards.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.
Argentine Republic	8,166,025	1,056,262																877
Austria	246,835	48,536																5,240
Belgium	93,108	17,343	316,478	857	7,786	449			4		63	104						323
Brazil	969,526	118,209									564	797		9				
Chili	2,600,643	294,586																
China																		
France	469,160	52,788	1,394,581	7,501	17,513	553,832			307		20,113	42,411	14,635,712	4,512,730	38,670			2,433
French Possessions in Africa, &c.	514	54																1,132,690
Germany	90,106	20,833	1,570,778	10,795	27,615	75,619			70		5,928	19,706	2,710,387	675,393	159,112			1,197,339
England	14,170,171	2,821,259	3,293,233	14,082	116,591	641,326			9,003		490,587	573,731	32,299,504	7,359,923	359,581			1,578,510
Scotland	100,425	11,939	5,898			23,766			8		11,928	29,171	16	5	2,525			15,059
Ireland			15															
Nova Scotia, New Brunswick, &c.	64,040	12,970	153	28	390													1,112
Quebec, Ontario, &c.	2,265,631	668,139	1,552	2	30	38			61		966	419	4,183	1,716	27			5,202
British Columbia	13,408	1,477	91						410									228
British West Indies and British Honduras	349	36	4						2									16
British East Indies	359,763	55,562	40			3,044					201	519						1,561
Hong-Kong	14,110	1,038				35												153
British Possessions in Africa, &c.	3,063,557	485,710																
British Possessions in Australasia	2,936,892	711,845							27									
Greece	657,648	68,340																405
Hawaii	950	227																
Italy	50	5																
Mexico	1,405,983	119,708	44			9			10		18	91			11			283
Netherlands			42,042			5					47	131	3	1	8			204
Dutch West Indies and Dutch Guiana	43,706	3,958									2,308	5,891						7,030
Azore, Madeira, and Cape Verde Islands	4,726	587																16
Russia on the Baltic and White Seas																		139
Russia on the Black Sea	1,503,703	199,253																
Spain																		
Cuba	2,675	87				6							132	45				6
Sweden and Norway																		
Turkey in Europe	343	11													1			1,889
Turkey in Asia	106,786	11,879				816						1,040						124
Turkey in Africa																		290
United States of Colombia	612,407	73,636																802
Uruguay	2,185,884	298,765																
Venezuela	22,069	1,902																
Total	42,171,192	7,156,944	6,624,909	33,265	169,925	1,298,129	9,939	533,539	674,011	49,650,114	12,549,867	559,941	3,951,861					

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The imports of adhesive felt are valued at \$28,273. This substance comes chiefly to New York and San Francisco. The import of roofing felt amounts to \$5,299.

The exports of wool and woolen manufactures, by customs-districts and countries, is shown below:

Districts.	Wool, and manufactures of.				
	Wool, raw and fleece.		Carpets.		Other manu- factures of.
	Pounds.	Dollars.	Yards.	Dollars.	Dollars.
Alaska, Alaska					85
Baltimore, Md					5
Boston and Charlestown, Mass	2,505	762			3,922
Brazos de Santiago, Tex					3,456
Cape Vincent, N. Y					365
Champlain, N. Y	6,500	1,900	14,570	9,875	82,327
Corpus Christi, Tex					2,625
Detroit, Mich	2,175	870	420	462	490
Duluth, Minn					455
Machias, Me			100	125	225
Miami, Ohio	58,219	18,293			
Newburyport, Mass					1,981
Oregon, Oreg	10,200	4,621	1,404	1,407	91,310
Portland, Me					25,982
Richmond, Va			4,345	3,475	6,982
Salem and Beverly, Mass			2,480	829	19,255
San Diego, Cal					6,293
Savannah, Ga					924
Superior, Mich			130	174	19,379
Waldoboro', Me			30	30	8,135
Willamette, Oreg					23
Wilmington, N. C					1,241
Total	79,599	26,446	23,479	16,377	275,460
Additions to Niagara and Vermont, taken from Canadian reports		670,008			161,106
Grand total		696,454			436,566

Countries.	Wool, and manufactures of.				
	Wool, raw and fleece.		Carpets.		Other manu- factures of.
	Pounds.	Dollars.	Yards.	Dollars.	Dollars.
Argentine Republic					336
Brazil					1,063
Central American States					309
China					4,233
France					300
French West Indies and French Guiana					140
Miquelon, Langley, and St. Pierre Islands					950
French Possessions in Africa and ad- jacent islands					23
French Possessions, all other					1,297
Germany			50	75	24,510
Great Britain: England	10,200	4,621	4,345	3,475	51,214
Scotland					108
Nova Scotia, New Brunswick, and Prince Edward Island	2,505	762	2,480	829	45,959
Quebec, Ontario, Rupert's Land, and the Northwest Territory	66,894	21,063	15,120	10,492	93,978
British Columbia					13,897
Newfoundland and Labrador					64
British West Indies and British Honduras			395	495	2,297
British Guiana					1,297
Hong-Kong					3,233
Hawaiian Islands					4,432
Hayti			25	25	199

Countries.	Wool, and manufactures of.				
	Wool, raw and fleece.		Carpets.		Other manu- factures of.
	Pounds.	Dollars.	Yards.	Dollars.	Dollars.
Italy					332
Japan			100	150	2,940
Liberia			138	121	
Mexico			55	60	14,469
Netherlands					170
Dutch West Indies					127
Portugal					275
Azore, Madeira, and Cape Verde Islands					1,244
Portuguese Possessions in Africa and adjacent islands					100
Cuba			10	21	2,225
United States of Colombia			85	96	1,153
Uruguay					1,040
Venezuela			676	538	1,404
All other islands and ports, not elsewhere specified					142
Total	79,599	26,446	23,479	16,377	275,460
Additions taken from Canadian reports		670,008			161,106
Grand total		696,454			436,566

The foreign export of woollen manufactures amounts to \$373,753, that of unmanufactured wool to \$472,519 (3,088,957 pounds), chiefly to Canada (\$445,134), France (\$23,835), and England (\$3,550).

SILK.

The imports of raw silk are shown in the following table:

Silk, raw.	Pounds.	Dollars.
China	44,281	233,390
France	133,108	1,017,339
Germany	2,192	18,403
England	179,891	1,113,832
Italy	2,282	19,979
Japan	819,056	4,371,886
Hong-Kong	5,360	18,108
	1,186,170	6,792,937

Raw silk comes entirely to San Francisco (861,166 pounds), New York (324,328), and Philadelphia (676).

A foreign export of raw silk (38,515 pounds), valued at (\$209,709), goes to England (37,018 pounds), France (1,000), and Quebec. It passes chiefly through New York.

The import of manufactures of silk is shown below :

Countries.	Silk, manufactures of.		
	Dress and piece goods.	Hosiery.	Other manufactures of.
	Dollars.	Dollars.	Dollars.
Austria			9
Belgium	9,000	10	44,217
Brazil	11		
China	672		80,249
France	10,608,762	3,060	2,098,170
Germany	4,169,604	39,861	1,178,266
England	1,667,826	35,559	1,567,508
Scotland	9,247	450	5,975
Ireland			312
Nova Scotia, New Brunswick, &c	77		57
Quebec, Ontario, &c	610		2,273
British Columbia	6		160
British Guiana			237
British East Indies	82		889
Hong-Kong	37		4,518
British Possessions in Australasia			51
Haiti			60
Italy	329		411
Japan	174		8,925
Mexico	4		69
Netherlands	284,235		6,531
Russia on the Baltic and White Seas			544
Spain			127
Cuba	68		278
Porto Rico			24
Sweden and Norway			64
Turkey in Africa			359
United States of Colombia	82		10
Total	16,750,826	78,940	5,000,393

Almost the entire imports of this class come to New York.

The amount of silk and manufactures of silk entered into consumption is shown in the following table :

Description.	Amount.	Dollars.
Silk :		
Cocoons		222,633 00
Raw, or as reeled from the cocoons	pounds 1,186,245	6,793,710 00
Waste		168,256 00
Worms' eggs		1,012,624 00
Manufactures of all kinds		16,239,655 79
Manufactures, such as velvet, of which silk is the component of chief value		5,510,178 87

The import of silk waste amounts to \$166,646. New York receives \$84,414; San Francisco, \$81,232.

The import of silk-worm eggs and cocoons amounts to \$1,235,283. San Francisco receives \$10,818,447; New York, \$216,836.

The foreign export of silk manufactures amounts to \$199,593.

IVORY.

The amount of ivory and manufactures of ivory entered into consumption is shown in the following table :

Ivory, manufactured	\$339,863
Ivory, manufactures of, not otherwise provided for	34,067
Ivory or bone dice, draughts, chess-men, chess-balls, and bagatelle-balls	2,236
Total	376,166

The total import of ivory amounts to \$379,402. New York receives \$333,727, Boston \$21,938, Baltimore \$20,043, Philadelphia \$2,749, San Francisco \$965.

HORN.

The total value of the importation of horns, horn-tips, and horn-strips is \$285,368, of which \$240,487 comes to New York, \$35,352 to Boston, \$4,720 to the Lake ports, and \$4,119 to Baltimore.

WHALEBONE.

Unmanufactured whalebone entered into consumption to the amount of 1,880 pounds, valued at \$1,379. The consumption of manufactured whalebone is valued at \$851.

SHELL.

Shells of every description, including, doubtless, both tortoise shell and shells of mollusks, entered into consumption, \$162,768.76.

CORAL.

Unmanufactured coral entered into consumption to the amount of \$718.14; coral cut or unmanufactured to the amount of \$28,649.

LEATHER.

The following table shows the amounts and values of leather and leather articles entered into consumption:

Hides and skins:

Goat-skins, Angora, and sheep-skins, with the wool on (less the value of the wool)	\$7,419 15
Goat-skins, raw	3,181,072 40
All other hides, raw or uncured, whether dry, salted, or pickled; and skins, except sheep-skins, with the wool on	11,795,029 93
Leather, tanned, not manufactured	4,588,491 46
Manufactures of leather	3,449,979 76
Parchment	8,938 00
Preparations of viscera:	
Manufactures of bladders	106 00
Gold-beaters' molds and skins:	
Entered into consumption	14,236 00
Imported (this whole import comes to New York)	13,634 00
Sinews, nerves, &c., crude	3,798 00
Catgut and whipgut unmanufactured, catgut strings and gut-cord for musical instruments, also gut and wormgut for whip and other cords, entered into consumption	163,109 39

The total entry of catgut strings amounts to \$146,210. Of this, New York receives \$117,952, Baltimore \$12,218, San Francisco \$5,635, Boston \$5,411, New Orleans \$2,898, and Philadelphia \$1,644.

Wool pelts, less the value of the wool, are imported to the value of \$8,736. This import is entered entire at Boston.

HIDES AND SKINS.

The following shows the value of importations of hides and skins:

Argentine Republic	\$2,071,161
Austria	26,846
Belgium	513,677
Brazil	1,138,819
Central American States	43,716
Chili	10,921
China	822
France	237,777
French West Indies and French Guiana	3,543
French Possessions in Africa	36,595
All other French Possessions	1,972
Germany	234,153
England	1,988,186
Nova Scotia, New Brunswick, &c	14,303
Quebec, Ontario, &c	493,530
British Columbia	23,288
Newfoundland and Labrador	2,327
British West Indies and Honduras	17,577
British Guiana	808
British East Indies	1,272,617
British Possessions in Africa	154,746
British Possessions in Australasia	627
All other	26,364
Hawaii	50,861
Hayti	7,219
Italy	679
Japan	121
Mexico	1,529,702
Netherlands	126,857
Dutch West Indies and Dutch Guiana	93,778
Portugal	23,467
Azores, Madeira, and Cape Verde Islands	48,122
San Domingo	19,977
Cuba	65,783
Porto Rico	13,826
Spanish Possessions elsewhere	14,679
Turkey in Africa	562
United States of Colombia	1,033,079
Uruguay	1,790,057
Venezuela	703,694
All unnumbered ports in Africa	126,863
	14,963,701

The next table shows the ports at which hides and skins are entered by the importers:

Districts.	Hides and skins, other than furs.	Districts.	Hides and skins, other than furs.
Baltimore, Md	\$184,422	Niagara, N. Y	\$92,891
Boston and Charlestown, Mass	3,498,294	Oswegatchie, N. Y	80,309
Brazos de Santiago, Tex	607,139	Oswego, N. Y	5,829
Buffalo Creek, N. Y	105,482	Pamlico, N. C	238
Cape Vincent, N. Y	22,623	Paso del Norte, Tex	9,261
Champlain, N. Y	7,129	Pearl River, Miss	471,104
Chicago, Ill	690	Plymouth, Mass	9
Corpus Christi, Tex	157,135	Providence, R. I	778
Detroit, Mich	49,919	Puget Sound, Wash	25,897
Fairfield, Conn	251	Richmond, Va	45
Galveston, Tex	7,359	San Francisco, Cal	26
Gloucester, Mass	80	Savannah, Ga	86,446
Huron, Mich	11,533	Superior, Mich	191
Minnesota, Minn	4,305	Vermont, Vt	68
New Bedford, Mass	20,065	Willamette, Oreg	111,979
Newburyport, Mass	7,337	Wilmington, N. C	1,025
New Haven, Conn	87		
New Orleans, La	66,879		
New York, N. Y	9,326,876		
		Total	14,963,701

The next table shows the importation of manufactured leather and articles made therefrom :

Countries.	Leather, and manufactures of.				
	Leather of all kinds.		Gloves of kid, and all other of skin or leather.		Other manufactures of.
	Pounds.	Dollars.	Doz. prs.	Dollars.	Dollars.
Austria.....	36	49	55	290	677
Belgium.....	5,374	7,007	6,377	41,024	432
Brazil.....	195	130			104
China.....	633	422			7,255
Danish West Indies.....	15	9			15
France.....	4,633,915	3,095,685	231,093	1,356,022	142,501
Germany.....	658,708	442,568	258,870	1,186,100	126,119
England.....	1,199,696	778,065	99,063	543,517	242,549
Scotland.....	382	255	47	319	722
Ireland.....					100
Nova Scotia, New Brunswick, &c.....			2	9	1,088
Quebec, Ontario, &c.....	583,873	82,854	12	105	10,948
British Columbia.....					755
British West Indies and British Honduras.....					5
British East Indies.....	354,143	176,193			759
British Possessions in Africa, &c.....	12	15			50
British Possessions in Australasia.....	480	567			177
Hawaii.....					7
Hayti.....	1,821	1,214			
Italy.....	1,963	1,348	310	1,333	119
Japan.....					496
Mexico.....	2,785	1,284	16	93	1,242
Netherlands.....	1,533	1,022	1	11	
Azore, Madeira, and Cape Verde Islands.....					5
Russia on the Baltic and White Seas.....	400	465			427
Spain.....			16	97	33
Cuba.....	424	283			112
Sweden and Norway.....	60	62			80
Turkey in Africa.....					2
United States of Colombia.....	805	162			204
Uruguay.....	115	12			
Venezuela.....	55	42			31
Total.....	7,447,423	4,589,713	595,862	3,128,919	537,014

The exports of leather are as follows:

	Quantity.	Value.
Leather of all kinds, not elsewhere specified..... pounds.....	25,122,936	\$2,480,427
Morocco and other fine leather.....		6,016,373
Boots and shoes..... pairs.....	300,484	1,280,225
Saddlery and harness and other manufactures.....		414,630
		456,073
Total.....		10,647,728

The foreign exports of hides and skins amount to \$44,415. This export is made from New York and Boston to France (\$13,976), Nova Scotia and New Brunswick (\$12,068), England (\$10,668), and Germany (\$7,515). That of leather amounts to \$106,762 (382,765 pounds), chiefly to England and Canada; of leather gloves \$13,372 (2,286 dozen pairs), chiefly to Canada and France; and other manufactures, \$17,857, to British Columbia, Scotland, Mexico, England, Canada, and France.

The tables below show the amounts of exports by countries and by districts:

Countries.	Leather, and manufactures of.						
	Boots and shoes.		Leather of all kinds, not elsewhere specified.		Morocco, and other fine.	Saddlery and harness.	Manufactures of, not elsewhere specified.
	Pairs.	Dollars.	Pounds.	Dollars.	Dollars.	Dollars.	Dollars.
Argentine Republic	144	255	850	246		388	1,419
Austria			192,523	40,525			
Belgium			1,839,757	560,390	26,813	50	1,113
Brazil	2,938	3,238				394	6,432
Central American States	11,782	16,077				10,136	566
Chili						493	184
China	75	165	19,223	6,744		112	201
Danish West Indies	8,961	9,338	7,926	1,766	45	1,133	3,056
France			64,909	18,140	1,375	1,990	1,455
French West Indies and French Guiana						307	
Miquelon, Langley, and St. Pierre Islands	1,357	2,403	4,474	1,079	95		
French Possessions in Africa and adjacent islands	192	204					
French Possessions, all other	4,103	6,723	1,976	463		576	416
Germany	18,938	25,797	6,120,639	1,515,938	11,138	276	101,601
Great Britain: England	1,153	1,756	15,718,808	3,575,241	1,210,026	573	78,396
Scotland	1,104	4,910	184,751	45,312	3,240	12	39,301
Gibraltar							152
Nova Scotia, New Brunswick, and Prince Edward Island	41,091	48,723	43,402	11,140	5,342	4,009	8,279
Quebec, Ontario, Rupert's Land, and the Northwest Territory	18,074	33,890	91,331	26,356	175	6,911	20,620
British Columbia	17,896	31,294	12,132	3,253		7,599	6,336
Newfoundland and Labrador	240	500	153,261	32,796	1,285		2,501
British West Indies and British Honduras	56,093	66,633	28,399	7,740	2,139	3,316	5,302
British Guiana	370	462	32,416	8,992	1,125	105	692
Hong-Kong	78	179	8,630	2,152		149	977
British Possessions in Africa	472	1,313	5,719	4,430	522	96	1,217
British Possessions in Australasia	398	702	15,973	4,360	7,953	17,685	8,019
Hawaiian Islands	21,188	32,341	9,176	2,428		7,841	5,231
Hayti	12,165	13,670	250	127	688	1,097	453
Italy			3,310	1,100			
Japan	638	1,262	325,698	71,953		2,962	7,588
Liberia	2,453	4,584					144
Mexico	38,793	53,383	4,077	1,675	102	4,446	8,010
Netherlands	2,198	2,662	194,291	64,330	2,767		16,766
Dutch West Indies	4,473	4,799	16,668	4,253	20	873	1,824
Peru	546	948				750	993
Portugal							1,007
Azore, Madeira, and Cape Verde Islands	2,231	3,064	2,518	572	498		
Russia, Asiatic	1,327	2,642	3,100	800		487	313
San Domingo	7,712	8,962			181	324	1,033
Cuba	3,958	4,785	3,867	1,279	2,075	3,348	19,056
Porto Rico	550	622	280	112	378	1,790	949
Spanish Possessions in Africa and adjacent islands			519	170			264
Sweden and Norway			9,421	2,687			
Turkey in Europe							5,268
Turkey in Asia							80
United States of Colombia	15,625	24,914	2,155	608		9,227	2,519
Uruguay					771		
Venezuela	424	532	407	123	1,462	4,630	2,255
All other islands and ports, not elsewhere specified	744	898	100	93			
Total	300,484	414,630	25,122,936	6,016,373	1,280,225	94,085	361,988
Additions taken from Canadian reports		133,842					380,312
Grand total		548,472					742,300

Districts.	Leather, and manufactures of.						
	Boots and shoes.		Leather of all kinds, not elsewhere specified.		Morocco, and other fine.	Saddlery and harness.	Manufactures of, not elsewhere specified.
	Pairs.	Dollars.	Pounds.	Dollars.	Dollars.	Dollars.	Dollars.
Alaska, Alaska			50	10			
Baltimore, Md	3,599	6,120	516,145	202,137	441	1,530	1,370
Bangor, Me	63	60					
Boston and Charlestown, Mass	25,585	33,433	3,312,403	666,173	1,119,981	5,040	26,821
Brazos de Santiago, Tex	25,823	32,218	125	27		1,233	153
Buffalo Creek, N. Y							2,319
Cape Vincent, N. Y	75	109					1,934
Champlain, N. Y	1,650	1,658	57,566	16,639		234	3,316
Corpus Christi, Tex	8,457	14,976	95	90		550	341
Cuyahoga, Ohio			70	21			215
Detroit, Mich	1,444	3,342				792	4,077
Duluth, Minn							29
Erie, Pa			60	16			
Genesee, N. Y	72	145	905	250		808	
Huron, Mich							662
Key West, Fla						65	
Machias, Me			50	8			44
Minnesota, Minn	3,286	4,708				4,739	
New Bedford, Mass			227	62			
New Haven, Conn							5,268
New London, Conn			280	112		375	56
New Orleans, La	4,288	4,068				170	232
New York, N. Y	129,857	167,856	19,020,309	4,499,578	159,506	44,305	274,390
Niagara, N. Y					175	60	140
Norfolk, Va							144
Oswegatchie, N. Y	3,755	3,013	5,065	1,535			4,628
Oswego, N. Y							32
Passamaquoddy, Me	26,828	30,021				2,418	5,192
Philadelphia, Pa	2,116	2,126	1,736,280	518,679	20	522	689
Portland, Me							895
Puget Sound, Wash	25	87				264	862
Saluria, Tex	3,119	4,279	30	15	102	140	24
San Francisco, Cal	49,515	80,915	445,571	103,103		30,248	24,851
Savannah, Ga	3,135	3,581	40	23			36
Vermont, Vt	7,792	20,915	27,665	7,895		368	3,268
Willamette, Oreg						314	
Total	300,484	414,630	25,122,936	6,016,373	1,280,225	94,085	361,988
Additions to Niagara and Vermont, taken from Canadian reports		133,842					380,312
Grand total		548,472					742,300

HAIR.

The amounts of hair and manufactures of hair entered into consumption are shown in the following table:

Hair, and manufactures of.	Pounds.	Value.
Hair, unmanufactured:		
Human hair, cleaned or drawn		\$40,652
Human hair, not cleaned or drawn		41,627
Horse-hair, used for weaving, cleaned or uncleaned, drawn or undrawn	121,588	90,198
Horse-hair, all, and cattle-hair, cleaned or uncleaned, drawn or undrawn, unmanufactured	2,226,692	391,439
Cleaned hair, unmanufactured, not otherwise specified		54,501
Hogs' hair		15,057
Curled hair, other than hogs', for beds or mattresses		16
Hair, manufactured:		
Manufactures of human hair		14,825
Hair-cloth, and other manufactures not otherwise provided for		98,661
Hair bracelets, braids, chains, &c		1,484
Hair-pencils		3
Total		748,313

The imports of hair, by countries, are as shown below:

Countries.	Hair, and manufactures of.		Horse-hair for weaving.		Hair of all other kinds, not manufactured.	
	Hair, human, and manufactures of.	Hair, other, and manufactures of, not elsewhere specified.	Pounds.	Dollars.	Pounds.	Dollars.
	Dollars.	Dollars.				
Argentine Republic			596, 741	104, 240	144, 220	26, 380
Belgium.....	57	335			650	413
Brazil.....			161, 715	33, 405	420, 969	71, 943
China.....	832					
France.....	18, 742	6, 574	9, 278	7, 594	34, 903	7, 981
Germany.....	39, 741	26, 956	59, 126	51, 338	45, 323	20, 490
England.....	13, 972	119, 442	21, 167	17, 862	403, 786	58, 989
Scotland.....		8, 610				
Ireland.....						
Nova Scotia, New Brunswick, &c.....			1, 192	224	12, 218	454
Quebec, Ontario, &c.....	2, 179				10, 387	802
Hong-Kong.....		601				
British Possessions in Australasia.....		37				
Italy.....	1, 481					
Japan.....	71					
Mexico.....			3, 926	576	178, 143	28, 741
Cuba.....					2, 067	443
Porto Rico.....					138	52
Netherlands.....					6, 110	598
United States of Colombia.....					95	20
Uruguay.....					235, 315	49, 112
Turkey in Africa.....		41				
Total.....	77, 075	162, 596	853, 146	215, 239	1, 494, 324	266, 398

The imports are made chiefly to New York, Boston, and Philadelphia. Twenty-one thousand and three pounds of horse-hair for weaving, valued at \$4,201, pass through Boston to England as a foreign export; also manufactures of human hair to the value of \$19,329, chiefly to England, and other hair manufactures (\$3,597) chiefly to Belgium.

BRISTLES.

The amount of bristles entered into consumption is placed at 353,287 pounds, valued at \$545,011. The imports of bristles by countries is shown below:

Countries.	Bristles.	
	Pounds.	Dollars.
China.....	1, 871	713
France.....	43, 532	48, 064
Germany.....	193, 329	472, 149
England.....	11, 324	15, 534
Total.....	450, 056	536, 460

Almost the entire import of bristles is entered at New York (449,910 pounds), a small quantity going to Boston (137) and New Orleans (9). There is a foreign export of bristles from New York to Canada amounting to 4,642 pounds (\$3,236).

QUILLS.

The amount of quills entered into consumption, prepared and unprepared, is valued at \$1,051. The value of toothpicks entered into consumption is \$15,441.

FEATHERS.

The value of feathers entered into consumption is shown below:

Feathers and down for beds and feather-beds	\$12,531 50
Ornamental feathers, ostrich, vulture, cock, &c., crude	634,450 20
Feathers, dressed, colored, or manufactured	15,352 00

The total entries of feathers amount to \$11,313, of which New York receives \$10,431, and San Francisco \$727, with trifling entries at other ports. There are also feather-beds to the value of \$1,404, coming chiefly to New York and Philadelphia.

GLUE AND GELATINE.

The import of hide-cuttings for glue-stock amounts in value to \$320,722, of which New York receives \$163,593, Boston \$156,448, and Baltimore \$681. Hoofs and other glue-stock of that description are valued at \$10,650, of which \$10,188 comes to the Lake ports.

The import of common glue amounts to 1,112,527 pounds, valued at \$26,345.60.

The consumption of gelatine and similar products, of which a portion is probably of vegetable origin, is valued at \$90,971.

Isinglass or fish-glue entered into consumption to the value of \$32,236 (75,267 pounds).

The total import of fish sounds and glue is given at \$16,125; \$11,727 comes to Boston, and \$4,398 to other ports.

Glue is exported to the amount of 81,685 pounds, valued at \$16,069.

SPONGES.

The total import of sponges is valued at \$91,742. New York receives \$74,524, Philadelphia \$2,452, and San Francisco \$1,693.

OILS, FATS, AND SOAPS.

The following quantities entered into consumption:

Oils.	Amount.	Dollars.
Cod-liver oil, brown or crude, from provinces, not dutiable	gallons.. 129,263	81,607 00
..... dutiable	do. 13,732	15,434 00
Total	142,995	97,041 00
Cod-liver oil, refined, medicinal		17,290 00
Whale or fish oil from provinces, not dutiable	gallons.. 19,620	10,982 00
..... dutiable	do. 26,711	11,237 00
Total	46,331	22,219 00
Neat's-foot, and all animal, not otherwise provided for	gallons.. 2,597.50	1,124 93
Seal	do. 410	80 00
Tallow	pounds.. 25,522	1,938 00
Total		2,142 03

Oils.	Amount.	Dollars.
Spermaceti and wax.....pounds..	16,371	6,302 00
Stearine.....do.....	595	159 00
Tallow, and all other, and tapers.....do.....	1,231	253 00
Glycerine.....do.....	1,936,244	124,923 00
Grease*.....do.....	3,140,974	117,074 22
Soap-grease.....do.....	112,587	5,040 00
Common soap.....do.....	3,791,688	219,089 64
Fancy soap.....do.....	197,818	75,766 45

* The total import of grease amounts to \$116,070; New York receives \$58,340, Boston, \$56,057.

Soap-grease is imported to the value of \$5,384. Boston receives \$2,384, New York \$1,469, the Lake ports \$894, and Philadelphia \$637.

The total import of sperm oil is \$5,590, all coming to San Francisco.

The next table shows the exports of oils and fats:

Oils, fats, &c.	Amounts.	Dollars.
Whale and other fish oil.....gallons..	1,026,038	442,165
Sperm oil.....do.....	634,901	879,865
Spermaceti.....pounds..	153,552	41,027
Neat's-foot and other animal oils.....gallons..	19,932	19,720
Lard oil.....do.....	349,429	281,551
Tallow.....pounds..	91,472,803	7,883,616
Soap.....do.....	1,616,163	253,634
Tallow candles.....do.....		638,952
Total.....		10,820,530

There is a foreign export of whale and other fish oils, apparently from the British Provinces through Boston to Belgium; this amounts to 43,103 gallons, valued at \$26,669. A small foreign export of dutiable oils of this description goes to Quebec, Ontario, &c. (1,459 gallons), the British West Indies (236), and Brazil (10). This whole export amounts to 1,705 gallons, valued at \$794. It passes through Boston (1,365 gallons) and New York (340).

The imports of whale and fish oil by countries and by districts are shown below:

Countries.	Whale oil and fish oil, not of American fisheries.	
	Gallons.	Dollars.
FREE.		
Nova Scotia, New Brunswick, &c.....	130,562	79,403
Quebec, Ontario, &c.....	2,142	1,339
Newfoundland and Labrador.....	6,004	3,346
Total.....	138,708	84,088
DUTIABLE.		
Danish West Indies.....	2,745	2,814
Germany.....	4,128	3,672
England.....	11,164	21,604
British Columbia.....	10,945	4,447
Newfoundland and Labrador.....	450	161
British West Indies and British Honduras.....	2,554	837
Hawaii.....	2,609	1,070
Netherlands.....	4,767	5,377
Asiatic Russia.....	12,400	3,941
Sweden and Norway.....	120	92
Total.....	51,882	44,015

Districts.	FREE.		DUTIABLE.	
	Whale and fish, not of American fisheries.		Whale and fish, not of American fisheries.	
	Gallons.	Dollars.	Gallons.	Dollars.
Boston and Charlestown, Mass	82,007	45,782	2,570	771
Champlain, N. Y.	72	97		
Gloucester, Mass	1,360	593		
Huron, Mich	2,070	1,242		
New York, N. Y	40,680	31,870	23,238	33,694
Passamaquoddy, Me	10,160	3,480		
Philadelphia, Pa			120	92
Portland and Falmouth, Me	2,090	895		
Puget Sound, Wash			4,535	1,851
Salem and Beverly, Mass	269	129		
San Francisco, Cal			18,821	6,483
Willamette, Oreg			2,598	1,124
Total	138,708	84,088	51,882	44,015

PERFUMERY MATERIALS.

The next table shows the quantity entered into consumption of materials used by perfumers :

Description.	Ounces.	Dollars.
Castor or castoreum		3,482
Civet		1,218
Civet and musk in natural pod	5,991	33,336
Ambergris		694
Total		38,710

COLORING MATERIALS.

The next table shows the quantity entered into consumption of substances used by color-makers :

Description.	Pounds.	Dollars.
Cochineal	1,304,370	648,621
Lac, crude, seed, button, and stick	47,063	9,592
Lac-dye	454,781	26,243
Total		674,456

The total import of cochineal is 1,324,165 pounds, valued at \$649,325.

The next table shows the quantity of cochineal imported, by countries :

Imports of cochineal.

Countries.	Pounds.	Dollars.
Belgium	19,881	9,867
Central American States	13,115	5,296
France	11,316	7,065
England	342,109	180,035
British West Indies and British Honduras	11,219	6,500
Australasia, British Possessions	972	467
Mexico	111,763	52,466
Spanish Possessions in Africa	314,290	174,394
United States of Colombia	499,500	213,235
Total	1,324,165	649,325

The next table shows the quantity of imports by customs districts:

Districts.	Pounds.	Dollars.
New York	919, 870	431, 063
New Haven	284, 133	157, 345
Boston	60, 157	31, 303
Philadelphia	45, 918	23, 851
San Francisco	14, 087	5, 763
Total	1, 324, 165	649, 325

In addition to the above, we find that 66,986 pounds, valued at \$52,938, pass through New York to England (foreign exports).

WAX.

The next table shows the quantity entered into consumption of wax and manufactures thereof.

Description.	Amount.	Dollars.
Wax, and manufactures of:		
Bees-wax pounds..	19, 687	3, 198
Sealing-wax		3, 088
Manufactures of, not otherwise provided for		6, 356
Total		12, 553

The total import of wax amounts to \$16,844, of which New York receives \$11,764 and Philadelphia \$3,330.

The total export of wax amounts to 276,891 pounds, valued at \$22,876.

The total export of bone-black, ivory-black, and lamp-black (the latter not of animal origin), amounts to 515,488 pounds, valued at \$22,876.

CHEMICAL PREPARATIONS, MEDICINES, ETC.

The following table shows amounts entered into consumption:

Articles.	Pounds.	Dollars.
Phosphorus	56, 474	11, 295
Ammonia (crude)	1, 341	131
Sugar of milk		14, 653
Albumen and lactarine		57, 965
Animal carbon		396
Cuttle-fish bone	54, 215	9, 482
Cantharides	14, 206	11, 843
Rennets, raw and prepared		12, 016
Total value		117, 801

The total import of rennets is valued at \$11,944, of which New York receives \$11,470 and San Francisco \$398.

BONES.

The value of the import entries of "bones, crude, and not manufactured, burned, calcined, ground, or steamed, and bone-dust and bone-ash for

the manufacture of fertilizers," is placed at \$82,882. The amount entered into consumption is \$56,935.

The principal import is through the Lake ports, which enter to the value of \$52,469. Baltimore, the seat of many extensive fertilizer factories, receives to the value of \$23,857, New York \$4,937, and Boston \$1,475.

The total export of bones and bone-dust amounts to 7,072,000 pounds, valued at \$121,493.

GUANO AND OTHER FERTILIZERS.

The import entry of guano, except from bonded islands, is placed at 25,482 tons, valued at \$873,790.

The export of guano amounts to 954 tons, valued at \$41,530. 2,757 tons, valued at \$77,190, goes as a foreign export to Ireland (1,537 tons), England (680), and Cuba (535). It passes through Petersburg, Va. (1,437 tons), Beaufort, S. C. (779), and New York (541).

Other fertilizers are imported to the value of \$157,471. Of this amount Baltimore receives \$48,230, New York \$18,897, Philadelphia \$9,613, and other ports \$80,647.

Manures, probably mostly animal, are exported, to the value of \$1,076,602.

SPECIMENS OF NATURAL HISTORY.

The following entered into consumption :

Specimens of natural history, botany, and mineralogy for cabinets, &c., and not for sale	\$12, 191
Skeletons and other preparations of anatomy	4, 040
Bird-skins	11
Stuffed birds.....	1, 097
Fossils.....	375
Total	<u>17, 714</u>

The following table shows the countries from which guano is imported :

Countries.	Guano (except from bonded islands).		Countries.	Guano (except from bonded islands).	
	Tons.	Dollars.		Tons.	Dollars.
Chili.....	1, 832	55, 139	Mexico.....	18, 481	741, 124
France.....	16	790	Venezuela.....	4, 463	65, 276
Scotland.....	4	317	All other countries and ports in South America.....	1	12
British West Indies and British Honduras.....	615	7, 123	Total.....	25, 582	873, 390
Hayti.....	100	3, 178			
Peru.....	70	143			

Guano is brought chiefly to New York (16,738 tons), Baltimore (7,732), Philadelphia (673), Norfolk (300), San Francisco (122), and New Orleans (16).

300 ANIMAL RESOURCES AND FISHERIES OF UNITED STATES.

The two following tables show the aggregate imports and exports for the years 1875, 1876, and 1877.

Net imports.

Articles.	1875.	1876.	1877.
Living animals	\$2,062,542	\$1,715,264	\$1,625,495
Fish	2,802,395	2,520,238	2,253,620
Hides, skins, furs undressed, hair, &c	20,541,768	15,185,194	16,840,299
Furs	2,987,865	2,881,329	2,348,380
Wool, unmanufactured	10,379,438	7,929,139	6,684,425
manufactures of	44,216,371	32,607,152	25,328,169
Silk, raw	4,471,396	5,405,608	6,583,228
manufactures of	24,107,665	23,487,418	21,630,566
Leather and manufactures of	10,166,909	8,208,150	8,117,655
Hair manufactures	879,419	348,621	216,745
Oils, animal and vegetable	1,906,949	1,508,387	1,699,829
Guano	525,667	704,818	796,200
Provisions not included			
	\$125,048,384	\$102,500,718	\$94,124,611

Net exports.

Articles.	1875.	1876.	1877.
Living animals	\$2,672,505	\$2,436,287	\$3,325,203
Provisions:			
Meats	39,217,176	49,592,834	67,288,758
Butter and cheese	15,166,599	13,379,579	17,125,243
Eggs and condensed milk	132,308	126,849	132,230
Fish	3,165,065	3,715,184	4,139,706
Hides, skins, furs, and hair	9,555,747	7,615,565	6,607,716
Wool, unmanufactured	62,754	13,845	26,446
manufactures of (not including hats and caps)	154,401	336,389	291,837
Leather and manufactures of (including trunks)	7,438,192	10,142,576	8,298,383
Oils and fats:			
Animal oils, including whale oil	1,420,324	1,975,972	1,623,301
Lard	22,900,522	22,429,485	25,562,665
Tallow	5,692,203	6,734,378	7,883,616
Soap (and starch)	1,136,173	1,209,695	1,093,234
Manures	616,376	922,221	1,118,132
Total	\$109,330,345	\$120,630,859	\$144,516,470
Annual average for three years			

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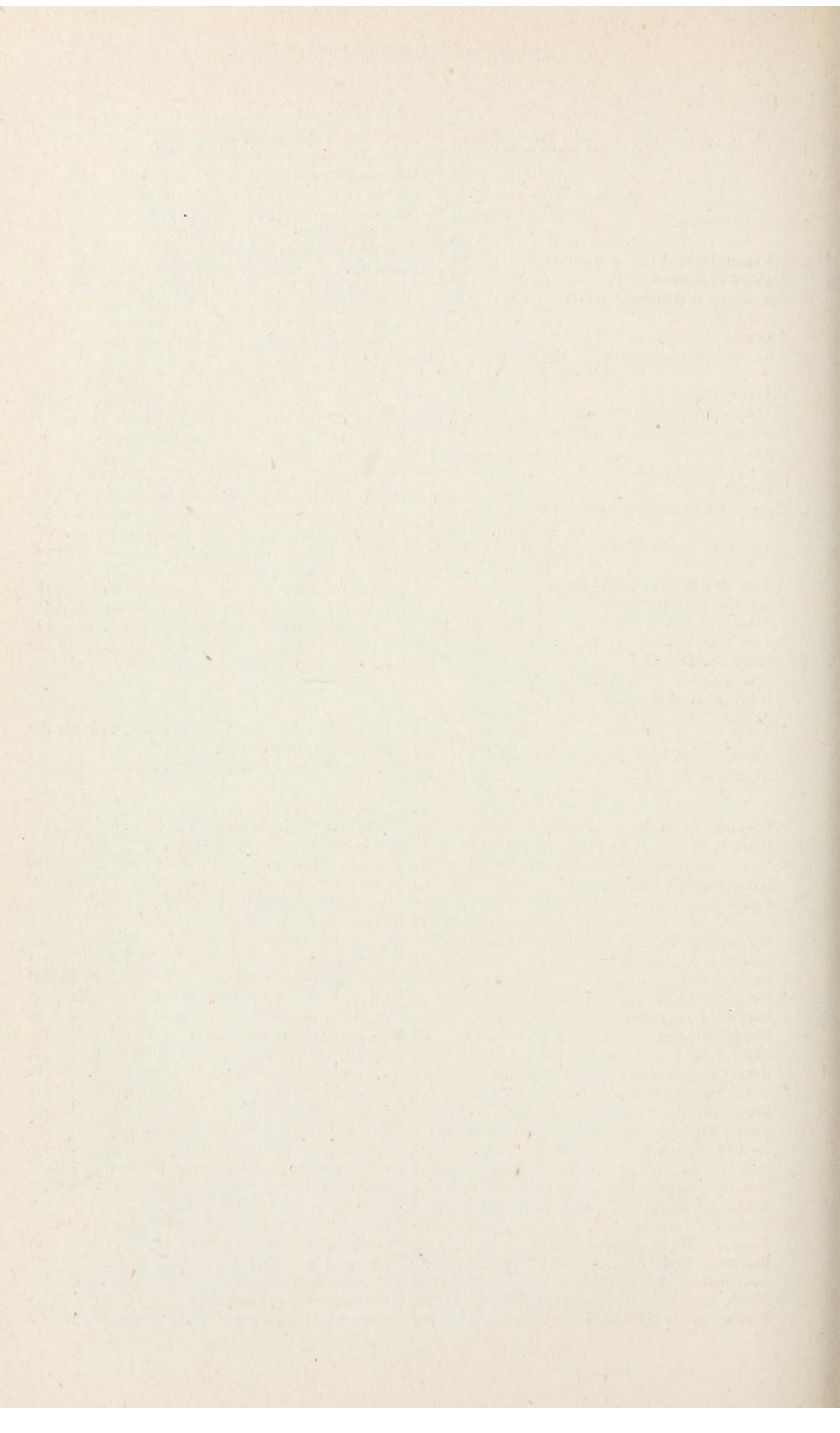
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