PART XXII.

THE LEECH INDUSTRY AND TREPANG FISHERY.

By RICHARD RATHBUN.

1.—THE LEECH INDUSTRY.

History and present condition of the leech trade of the United States.

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1.—THE LEECH INDUSTRY.

HISTORY AND PRESENT CONDITION OF THE LEECH TRADE OF THE UNITED STATES.

Introduction.—Prior to 1839 there was no regular import trade of European leeches into this country, but sea-captains were accustomed to bring them in occasionally in small quantities, on private speculation. Leechers were, therefore, obliged to depend largely on the native leech for drawing blood, and during the early part of the century the American species was in considerable demand. Although this species (*Macrobdella decora*) is quite widely distributed, the principal source of supply appears to have been, as it is now, Eastern Pennsylvania, and especially Berks and Bucks Counties.

Comparative merits and uses of European and American leeches.—As already stated, in discussing the natural history of leeches, the European species is much superior to the American for most purposes, but during the earlier periods of importation of the former, the prices charged for it were so high that the American leech held its ground for a time. Gradually, however, prices have fallen, until now, although the European leech is still more expensive than the native, its cost is so slight comparatively that it is almost universally employed, excepting in special cases, and in a few localities where the American leech is preferred. No American leeches, we believe, are now used either in or about New York City or Boston, but in Philadelphia they are still in slight demand. In fact, the latter city appears to have held to the old custom of leeching more than any other American city of which we have information.

History of the American import trade.—In 1839 the first regular leech importing house of the country, that of Mr. Herman Witte, was established in New York City, and from that time until about 1856 the import trade in leeches rapidly increased. The number of leeches received from Europe by Mr. Witte in the latter year was about 500,000, and his sales per month amounted at times to 50,000 leeches. At the same time the importing house of Paturel & Co., in New York, was receiving 300,000 a year, making the total annual receipts during the few years of that period 800,000. The wholesale prices then and in the few preceding years ranged from $80 to $100 per one thousand. Assuming the average price to have been $90 per thousand, the value of leeches imported in 1856 and thereabouts was $72,000 annually.

Since 1856 the use of leeches has gradually diminished, and the import trade is now only about one-seventh in value what it was then; the wholesale prices have also fallen off to from $25 to $50 per thousand.

EUROPEAN COUNTRIES SUPPLYING LEECHES TO THE UNITED STATES.—Originally the leeches imported into this country came from Northern Europe, but since the failure of supplies in that region and the successful cultivation of leeches in France and Hungary, they have been received almost entirely from the latter countries, Paris being the center of the export trade.

SEASON AND METHODS OF TRANSPORTATION.—Leeches are imported during most of the year, but only to a slight extent in summer, as they are easily killed by an excess of heat. June, July, and August are the months when the smallest quantities are received, and when the greatest mortality occurs, reaching sometimes 25 per cent. They are imported packed in swamp earth, in air- and water-tight wooden cases, holding 1,500 leeches each. These cases are made rather light, and are about 21 inches long, 15 inches wide, and 13 inches high. In shipping leeches to customers in this country, the same cases are used for sending large quantities, and tight wooden pails for the smaller quantities, the packing of swamp earth being also employed. American leeches, on the contrary, are kept best in water, in earthen or glass jars, in a cool place. Although considerable quantities of leeches are kept constantly on hand in the importing houses, Mr. Witte is obliged to draw on his storage-ponds on Long Island, between Winfield and Newton, for supplying large amounts, and especially for the export trade.

EXPORT TRADE FROM THE UNITED STATES.—The value of the American import trade in leeches is increased by the fact that a large share, if not nearly all, of the European leeches used in South America, pass through the New York market. Mr. Witte claims to dispose of 100,000 leeches a year in this way; he sends to ports on both the Atlantic and Pacific sides of the South American continent.

EXTENT OF IMPORTATIONS, SALES, PRICES, &c.—The import trade in leeches, including the quantity sent to South America, amounts to from 300,000 to 350,000 a year. The regular leech importing houses in this country are only two in number, both being located in New York City. They sell in quantities of 25 to 1,000 and upwards, at prices ranging from $25 to $50 a thousand, though the smaller quantities, say from 100 downward, generally bring a higher price. The retail prices for single leeches varies from 18 to 25 cents. The average wholesale price of leeches sold by the two New York houses is about $35 per thousand, which for an annual sale of 300,000 leeches would amount to $10,500.

It is stated that about one-half of the leeches regularly disposed of by the dealers of Paris are sent to this country, or sold to England for her colonial trade, but the latter trade is not extensive. It is likewise affirmed that the greater part of the leeches sold in this country are used by emigrants from Europe, and that were it not for that large element in our population the leech trade would become of comparatively slight importance.

THE TRADE IN AMERICAN LEECHES.—A Philadelphia leecher of long practice informs us that thirty or forty years ago very many more American leeches were used in that city than foreign ones, but as the importation of the latter increased and the prices declined, they gradually took the place of the natives. The market price of the American leeches in New York at that time was about $10 per thousand. Now, perhaps, scarcely more than 1,000 are actually used a year, though more than that quantity are brought to the city and sold. About ten years ago the practice of leeching declined greatly in Philadelphia, and about that period fewer leeches were used than in any previous year for a long time. Since then some physicians have again strongly advocated the use of leeches, and the practice is once more increasing. Philadelphia is supplied with native leeches by a single person, who collects them in Bucks and Berks Counties, Pennsylvania, and about Trenton, N. J. The value of the native leeches used in Philadelphia annually is very small.

The comparative merits of the European and American leeches have been discussed in connection with their natural history.

*Table showing the extent and value of the import and export trade in leeches of New York City, for 1880 (estimated).**

No. imported.	Value.	No. exported.	Value.
300,000	$10,500	100,000	$3,500

Table showing the value of foreign leeches imported into the United States from July 1, 1871, to July 1, 1880, according to the custom-house records.†

Year ending—	New Orleans.	New York.	All other ports.	Annual totals.
June 30, 1872			$5,375	$5,375
June 30, 1873			5,775	5,775
June 30, 1874			6,675	6,675
June 30, 1875			6,049	6,049
June 30, 1876			5,712	5,712
June 30, 1877			4,288	4,288
June 30, 1878	$128	$5,251	4,351	9,730
June 30, 1879	19	4,315		4,334
June 30, 1880	46	4,651		4,697
Totals	193	14,217	38,225	52,635

Table showing the value of foreign leeches exported from the United States to other countries, from July 1, 1877, to July 1 1880, according to the custom-house records.

Year ending—	Lake ports of New York State.	New York City.	Annual totals.
June 30, 1878	$83	$675	$758
June 30, 1879		1,243	1,243
June 30, 1880		1,170	1,170
Totals	83	3,088	3,171

2.—THE TREPANG FISHERY.

THE TREPANG FISHERY AT KEY WEST.

THE TREPANG AS AN ARTICLE OF FOOD.—The preparation for market of this soft echinoderm, variously designated as holothurian, sea-cucumber, sea-slug, beche de mer, and trepang, was, as the following account will show, once attempted on the Florida coast; but either from want of financial success or for other reasons, it was soon abandoned. The trepang is commonly used as food in China, which country derives the most of its supplies from the waters about some of the South Pacific islands, where one or more suitable species abound, and are prepared for the Chinese market in large quantities. It is questionable whether Americans could ever be induced to regard the trepang with favor as an article of food, although Dr. William Stimpson states that a New England species, *Pentacta frondosa*, when made into a soup, is very palatable. It was, however, for the purpose of supplying the Chinese trade that the Florida industry was

* The figures are furnished by Mr. Herman Witte, of New York. The quantity exported is included in the quantity imported, as only foreign leeches are exported from this country.

† The amounts given in the column of "All other ports," belong undoubtedly to New York, and there is evidently an error in the enumeration for 1878.

established, and its failure would indicate the impossibility of competing with a source of supply so much nearer home, and in a region where labor is much cheaper than in this country. It is, nevertheless, interesting to know that such a food product exists upon the coast of the United States in sufficient quantities to permit of its being utilized, should a demand for it arise.

TREPANG FISHERY AT KEY WEST.—Mr. Silas Stearns, of Pensacola, Fla., writes as follows, regarding the attempted fishery at Key West:

"In 1871 an Englishman came to Key West, Fla., for the purpose of gathering and preparing trepang for the Chinese market. He erected a shed, under which were built fire-places, with large kettles and other arrangements, and also frames for drying. He arranged with the fishermen, and fishermen's boys particularly, to bring him all the sea-slugs they could obtain, for which he was to pay a certain price apiece. As the slugs were very abundant on the shoals about Key West, and the prices paid for them were liberal, no trouble was experienced in obtaining large supplies."

The method of preparation was explained to Mr. Stearns as follows: "The sea-slugs, still alive and fresh, were thrown into the kettles and boiled a certain length of time, but as to the composition of the liquid in which they were cooked, my informant could not tell me. Then they were taken out, the outer rough skin rubbed off, and the body split with a knife, after which the intestines were removed and the body spread on canvas in the sun to dry. The next operation after drying, and the final one, was to smoke them; this was done in a smoke-house of the ordinary kind, in which they were suspended on slats. After the final process the trepang were packed in bales, covered with sacking, and shipped to New York, where they were probably reshipped to China. For two seasons (winters) this industry was kept up, and apparently with much success; but at the close of the second season the houses and apparatus were sold, and the operator left Key West. Since then nothing further has been attempted in the trepang industry there."