

YELLOW FEVER INSTITUTE, BULLETIN No. 8.
Treasury Department U. S. Marine-Hospital Service.
WALTER WYMAN, *Surgeon-General.*

YELLOW FEVER

IN

France, Italy, Great Britain, and Austria

AND

BIBLIOGRAPHY OF YELLOW FEVER IN EUROPE.

MAY, 1902.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1902.

YELLOW FEVER INSTITUTE.

Treasury Department, U. S. Marine-Hospital Service,

WALTER WYMAN, Surgeon-General.

BULLETIN NO. 8.

Section A.—HISTORY AND STATISTICS.

Surg. GEORGE T. VAUGHN Chairman of Section.

YELLOW FEVER IN FRANCE, ITALY, GREAT BRITAIN, AND AUSTRIA, AND BIBLIOGRAPHY OF YELLOW FEVER IN EUROPE.

By J. M. EAGER, *Passed Assistant Surgeon, M. H. S.*

MAY, 1902.

YELLOW FEVER IN FRANCE.

In a history by Arcere of the city of La Rochelle, published in 1756 (vol. 2, chap. 4, cited by Frank), there is a reference to an importation of yellow fever that occurred at La Rochelle toward the middle of the year 1700. The report, however, lacks proper corroboration.

1802. In the autumn of 1802, there arrived in the roads at Brest a squadron of 5 vessels of the line commanded by Admiral Villaret de Joyeuse. The ships had come from Santo Domingo. Among the crews were 42 persons in the active stages of yellow fever and many convalescents. The sick seamen were disembarked at the lazaretto of Tiberon, where 32 died. A custom-house official, after being for several days on duty aboard one of the vessels, the *Tourville*, was taken with yellow fever. He died at his home ashore. Fortunately, some of the medical practitioners who were called in to see the sick man had been in the West Indies. Thus the case was recognized as one of yellow fever. Strict sanitary measures were adopted and, probably owing to these precautions and the fact that the season was advanced, the disease did not spread.

The American ship *Columbia* arrived at Marseille in 1802 with yellow fever aboard, but there was no diffusion ashore.

1821. In this year there was an epidemic of yellow fever in Spain. Several vessels that had had yellow fever aboard on the passage from Barcelona entered the port of Marseille. All were remanded to the lazaretto. A carpenter who worked at the lazaretto died in a hospital at Marseille. Another case occurred in a hospital at Marseille that year in the person of a sailor who had come from Barcelona by land. The disease did not spread. The mayor of the city, with a view to averting an epidemic, sent for the famous professor Palloni, who had been through the yellow-fever epidemic, at Leghorn in 1804, and whose diagnosis and advice were relied and acted upon at Marseille with the happy results mentioned.

1839. The corvette *Caravane* arrived at Brest with yellow fever aboard. During the voyage 116 members of the crew had been down with yellow fever and 33 died. No cases occurred ashore.

1861. In the year 1861 there occurred at Saint Nazaire the only important epidemic of yellow fever that ever broke out in France. In an article on mosquitoes and yellow fever, published in Paris last year (1901), De Gouvea concludes that the epidemic at Saint Nazaire, so carefully observed and recorded by Melier, was determined by mosquitoes infected at Havana and transplanted to France in the hold of a vessel.

The *Anne-Marie*, a ship of the port of Nantes, with a crew of 16 souls, sailed from Havana June 13. The vessel carried barrels of sugar, between the tiers of which layers of sugar cane were placed, in order to properly dress the cargo. After five days' navigation, five days of broiling calms and storms followed by rains, the captain, in order to rest the crew, decided to drift in the Strait of Florida without using sails. Passing out of the strait, the winds became steady, and the men went to work with a will to make sail, showing no trace of fatigue or malady. July 1, namely, eighteen days after the departure from Havana, 2 seamen fell sick, and died within a few hours of each other on the fifth day of their illness. July 2, another sailor was taken ill, but it is recorded that "with strong doses of the sulphate of quinine and with violent purgatives, he was cured after ten days." On successive days, 6 other persons were stricken, including the captain. All were dosed with quinine and cathartics and recovered more or less promptly. Altogether, among the 16 persons aboard, there were 9 cases of sickness and 2 deaths. In this condition the ship entered the port of Saint Nazaire, twenty days after the last death and ten days after the inception of the final case of suspicious illness. Since no case of sickness had occurred during the last ten days and all were well on board at the time of arrival, the vessel was punctually given pratique, in conformity with the French sanitary regulations.

The *Anne-Marie* lay near the shore, not far from the railroad. At her side were 2 other vessels, the *Chastang*, belonging to the navy, and the *Cormoran*, of the imperial navy. The latter vessel was loading

boilers from the former. The crew of the *Anne-Marie* was disbanded and the captain, who had not yet recovered robust health after his recent illness, went to Paimboeuf to recuperate. The discharge of the cargo was entrusted to 17 stevedores, all hale and hearty men.

From July 25 to July 29 the *Chastang* lay near the *Anne Marie*. Some of the men of the *Chastang* went aboard the *Anne-Marie* and paid a visit of a quarter of an hour's duration. July 29, the *Chastang*, with a crew of 5 men, left for Indret, a place 25 miles above Saint Nazaire. They arrived at Indret the same day. A mechanic on the *Chastang* sickened August 1 and died in four days. At about the time of the mechanic's death 3 men of the crew of the *Chastang* were taken with the same symptoms. The clinical picture was that of yellow fever. The news of what had occurred at Indret had not yet reached Saint Nazaire when, August 2, the first officer of the *Anne-Marie*, a robust man, aged 28 years, died after being ill of yellow fever for sixty hours. The next day, a cooper, who had spent several days in the hold of the *Anne-Marie* engaged in repairing sugar barrels, fell sick of the same disease and died in five days. August 4, a master stonemason, who worked on the harbor front, 260 meters from where the infected vessel was stationed, acquired the disease, and after six days died. He had had no communication with the ship, no contact with the men or merchandise of the vessel. August 5, 5 stevedores from the infected ship were attacked. Three died in about four days, the other in eight days. August 7, there were 3 more cases, and 2 others the following day. A woman who sold old clothes, sails, and cord was taken sick of yellow fever August 6. She had received in her house 2 seamen of the *Anne-Marie* and had bought from them some discarded garments and odds and ends of canvas and cordage. The next day, a prostitute, aged 55, who had intimate relations with the stevedores of the pest ship, was prostrated with the same malady. A laborer, engaged in handling the cargo of the *Anne-Marie*, lived with a cobbler at a long distance from the port. The cobbler, who sat at his bench from morning till night and never moved from the place of his work, was stricken with yellow fever and died in a few hours. His guest, the laborer, and the laborer's wife both took the disease, but got well.

The *Cormoran*, with 6 men in the crew, was for four days (July 31 to August 3) near the *Anne-Marie*, loading boilers, as has already been mentioned, from the *Chastang*. The *Cormoran* had no communication with the *Anne-Marie*, and it is explicitly stated that she was exposed only to the emanations that issued from the ballast of the infected vessel during the discharge of cargo. The *Cormoran* went to Lorient, a place near Saint Nazaire, August 10. Four days later, 2 of her crew showed symptoms of yellow fever and were dead in forty-eight hours. The necropsy confirmed the diagnosis. Two lighters were also anchored near the *Anne-Marie*. One, the *Jean Bart*, had a crew of 2 men ; aboard the other, *Pere Eugraud*, were 2 men and a woman. A man of the crew

of 1 of the lighters had been on the *Anne-Marie* for a few minutes only, but some of the lightermen had assisted at the funerals of the victims at Indret. All the 5 persons on the lighters suffered from a disorder which, though it had not the typical characteristics of yellow fever, bore a close resemblance to the milder form of the disease.

Still other vessels were infected from the *Anne-Marie*. A steamer that ran between Saint Nazaire and Lorient, known as *No. 6*, was for two days (July 28 and July 30) alongside the *Anne-Marie* and had communication with the stevedores. *No. 6* left Saint Nazaire July 30. During the trip to Lorient 1 of the stokers fell ill. He died in six days. About the same time the ship's boy took the same disease, but recovered.

A three-master, the *Dardanelles*, lay side by side with the *Anne-Marie*, August 2 and August 3, in such a position that to go ashore from the first it was necessary to cross under cover of the second. The ship's boy of the *Dardanelles* suffered a typical attack of yellow fever, but did not die.

A vessel from Marseille had been anchored in the harbor of Saint Nazaire from June 23. In order to prepare for her departure she was put alongside the *Anne-Marie* exactly in the position previously occupied by the *Dardanelles*. This vessel, after her departure, spent two days at Belle Isle. She then went to sea and lost her second officer from yellow fever. The officer fell sick August 5 and died after seven days. Twelve days after his death the ship's boy presented the same symptoms, including black vomit, and died in nine days. On the 26th the apprentice developed the disease, but recovered. August 29 a seaman took to his bunk with the malady; September 11 the captain sickened. During the next month 6 other men were prostrated by the disease. One of them died on the fifth day after invasion, the others recovered.

Altogether, the *Anne-Marie* infected 7 vessels, on which there were 40 cases of yellow fever and 23 deaths.

At Montoir a doctor named Chaillon was taken sick with yellow fever and died in four days. He had been in attendance on a patient who had worked as stevedore on the *Anne Marie*.

The records of the epidemic at Saint Nazaire show that all the infected ships were stationed down the wind from the *Anne-Marie*. The fact is established by the data of the meteorological and maritime observer at Lorient. It is interesting to note that a ship of the imperial navy, the *Chandernagor*, and a passenger transport, the *Lorientais No. 8*, posted near the *Anne-Marie* but up the wind, were perfectly immune from yellow fever. The distance of anchorage and the length of time passed near the infected vessel seemed to have had decided influence in determining outbreaks of the disease. The prevailing temperature did not appear to have any influence. The daily temperature during the epidemic oscillated between the maxima of 21° and 25.5° C. and the minima of 11.8° and 17°C.

H. de Gouvea, in his article already referred to on mosquitoes and

yellow fever, published October 12, 1901, in *Le Bulletin Medical*, Paris, referring to the epidemic just described, says :

All these facts adapt themselves in a perfect fashion, in our opinion, to the theory of the propagation of yellow fever by mosquitoes. We may assume at the outset that, during the loading of the vessel at Havana, a certain number of mosquitoes, previously infected by sucking the blood of yellow-fever patients living in the near neighborhood, could enter the vessel's hold filled with cases of sugar and many stalks of sugar cane placed as a filling in the angular spaces of stowage to hold the cases in place and prevent friction. The stalks could have furnished the mosquitoes with necessary nourishment during the voyage.

During the broiling calms that followed five days after the departure of the vessel from Havana, the mosquitoes, excited by the heat of the atmosphere and of the hold, could very easily pass the defective bulkhead that separated the hold from the lodgment of a certain number of the crew and installing themselves in that place sting the sailors who, as we have seen, were at the time enjoying a period of repose, and thus inoculate them with the germs of the disease. The infection of the stonemason who was at a great distance (260 meters) from the vessel, and who had had no contact with the ship, is explained in the present state of our knowledge in the following way: The infected mosquitoes escaping from the hold of the vessel and carried by the wind that blew in the direction of the workman, fixed themselves upon and stung him. The infection of the physician of Montoir, Dr. Chaillon, is explained in the same manner by the stings that he had received during his prolonged visit to the patient whom he treated, a stevedore of the *Anne-Marie*, suffering from yellow fever and living in a room on the ground floor in a marshy region where paludal fevers prevailed.

All the other cases of infection are explained very simply since they all occurred in individuals who had been for a longer or shorter time in the hold of the vessel or in individuals who, like the sailors of the other vessels, had been down the wind from the infected ship. With all the cases of yellow fever that occurred at Saint Nazaire and Montoir, the malady was not propagated by any of the effects of the crew, taken with them to their families nor by the ship's cargo sent directly to Nantes by the railroad.

Following the epidemic at Saint Nazaire there were reports of the importation of yellow fever in many of the ports of France, not only Mediterranean, but those of the west and north as well. There was, however, no diffusion of the disease.

1862. A vessel named the *Harriet* arrived, in the year 1862, at Havre with yellow fever aboard. The cases were so numerous that the authorities were forced to open the lazaretto at Tatihou, near Cherbourg.

1870. At the time of the epidemic in Spain, a vessel named the *Argos* arrived at Marseille from Barcelona with yellow fever aboard. The cases were all cared for in the lazaretto, except 1 seaman, who went to Marseille by land, was attacked by yellow fever, and died in the municipal hospital. Fortunately, there was no spread of the disease.

YELLOW FEVER IN ITALY.

The history of the two epidemics in Italy alleged to have been yellow fever, namely, those at Leghorn in 1804 and at Torre Annunziata in 1883, are of interest because of the heated discussions that arose as to diagnosis and the strenuous opposition that was made against branding the affected communities with the name of yellow fever, conditions

recalling the story of many an epidemic that has prevailed in various localities in the United States. The diagnosis in these two epidemics was so obscured by controversy that it will always be open to question. It depends upon the relative value that the student of their history places on the documentary evidence left by the physicians and public officers who had to deal with the disease.

1804. A Spanish ship, the *Anna Maria*, entered the port of Leghorn, August 18, 1804. On a voyage from Havana to Cadiz this vessel had lost almost the entire crew from yellow fever. At Cadiz the ship was refused permission to enter port, but was allowed to recruit the crew in quarantine. Through some irregularity the *Anna Maria* was given clean papers at Cadiz and, July 10, passed Gibraltar and proceeded to Alicante, where she received free pratique. The vessel sailed from Alicante August 9, and reached Leghorn August 18. Owing to the prevalence of yellow fever in Spain, special sanitary restrictions had, since July 17, been placed on all vessels arriving at Leghorn from Spanish ports. There had been sickness on board the *Anna Maria* on the passage from Alicante to Leghorn. The declaration of the captain, supported by oath, and the liberal donations of money made by the owner of the cargo, appear to have been effective in quieting all apprehensions at Leghorn. The ship was given free pratique. Two sick men taken from aboard were carried ashore and lodged at an inn in the Strada Pescheria Vecchia. These men died three days after, and a few days later 12 persons at the inn were taken sick. All the cases ended fatally. A Neapolitan who had left the inn at the first appearance of the disease was attacked ten days after and died in another neighborhood. A French butcher who took breakfast at the inn in the Strada Pescheria Vecchia died of the disease in ten days. Soon after his wife, the woman who owned the house in which he lived, and a friend an officer of the French army, died of the same affection. At the time these events were occurring at the inn, another focus was formed at a bakery in the Via San Antonio. A baker had brought from the infected ship a quantity of sacks which were to be filled with biscuits. The bread was baked in the night and, in the intervals between ovenfuls, the bakers rested themselves by lying down on the empty bags. In a few days these men were stricken with a strange malady. Suspicion was directed against the *Anna Maria* as the source of the disease, and sanitary guards were stationed aboard. In their turn, the guards acquired the disease.

The cargo of the *Anna Maria* consisted of sugar, hides, and wood used in the art of dyeing, and was stored in warehouses in different parts of the city. In the neighborhood of these magazines the disease gained quick headway. The porters who handled the goods and the custodians of the warehouses were taken with the disease. Two porters and 1 custodian died. Thus, spreading by degrees, the malady extended throughout the city of Leghorn. At that period Leghorn had a popula-

tion of 60,000, not counting the men of the French garrison. About 7,000 inhabitants fled to Pisa. The French soldiers were transferred elsewhere. None of these persons who left the city carried the disease to their new residence.

Two French physicians, Lacoste and Dufour, made a study of the malady. Lacoste had been for many years a medical officer of the army in the French Antilles. Dufour was a sanitary official of Leghorn and had conducted many necropsies. Lacoste and Dufour made post-mortem examinations of the bodies of the French butcher and the officer of the French army. As to their diagnosis: they only reported that the men died of a contagious disease. They did not, assign to the disease the name of yellow fever.

After the flight of the 7,000 persons to Pisa, a sanitary cordon was thrown about Leghorn, thus cutting the city off from the rest of Tuscany. In October, the government of Tuscany sent to Leghorn a commission composed of the celebrated Professor Palloni and Drs. Bruni and Bertini. The figures showing the ravages of this epidemic are very conflicting. Lacoste says that 1,900 persons died during the epidemic, Coppie says 1,500, and Palloni 700. These discrepancies can be readily understood when account is taken of the state of panic that prevailed and the confusion that invaded the families of the sick or dead when they were turned out of their houses and the habitations burned to the ground. According to the reports of Palloni, there were 7 death in August, 51 in September, 204 in October, 390 in November, and 3 in December.

The government commission was composed of men of experience and learning, who studied the epidemic thoroughly and suggested the wisest measures of sanitation. But it is a curious fact that when it came to defining the malady they remained mute. The only conclusion that can be drawn is that silence on this point was a condition imposed upon them by their government with a view to minimising the commercial damage that in a maritime city would be attendant upon the epidemic diagnosis of a disease capable of spreading to the shipping. In fact, seventeen years after, Palloni, in giving his advice on yellow fever to the sanitary authorities of the port of Marseille, confessed openly that there had been at Leghorn in 1804 an epidemic of yellow fever.

1883. The small epidemic at Torre Annunziata alleged to have been yellow fever occurred in 1883 on the eve of the devastating prevalence of Asiatic cholera at Naples the following year. The interest it probably would have otherwise attracted was lost in the greater epidemic that entirely occupied the activity and study of Italian physicians and epidemiologists.

The first case occurred June 19 in the person of a tavern keeper, aged 60, from Ischia. This man went directly from Ischia to Torre Annunziata, May 29, to transact business as a wine merchant. His case was

diagnosed as one of grave icterus and he died July 8, in Via Cisterna. A few days later another man, 80 years old, living in the Via del Popolo, two or three blocks away, died with the same symptoms. The attending physicians made a diagnosis of acute yellow atrophy of the liver. The third case was that of a woman aged 70 years who died August 25, after an illness of eight days. She lived in Via Garibaldi, within two blocks of the first cases. The same diagnosis of acute yellow atrophy was made.

Early in September, several persons living in Via Cisterna were taken sick about the same time and with the same symptoms. An alarm arose and strict sanitary measures were employed. September 6, a custom-house clerk in Via Cisterna was taken ill. He had a chill, pains in the back, high fever, slow pulse, severe headache, and black vomit. He died in 7 days. Cases continued to appear in the same neighborhood until October 13. There were in all 13 cases and 7 deaths. In September, a commission of medical men from the University of Naples investigated the disease. Among them was Professor Somma, who died in the cholera epidemic at Naples the next year. After much discussion the members of the commission admitted the specific nature of the malady, but did not give it a name. However, Professor Somma, in a concise letter written September 24, 1883, to Dr. Gennaro Cozzolino, made the statement that the disease prevailing at Torre Annunziata was yellow fever. During the height of the epidemic the most careful investigations were made; necropsies were conducted by the most skillful pathologists of Naples; a special lazaretto was established, and the most stringent measures of isolation and disinfection insisted upon. The disputes between medical men were numerous and more or less violent. As a result, the consensus of opinion excluded yellow fever. Icteroid typhus and infective fever characterized by jaundice were the diagnoses settled upon by the different physicians who went so far as to give it a name.

Since 1883. It is a frequent occurrence in Italian ports up to the present time to have vessels arrive from South American ports with a history of yellow fever on board during the voyage. But no cases of yellow fever on shore have been registered since 1883. Vessels with suspicious histories of the nature mentioned are invariably sent for disinfection to the Italian national lazaretto on the island of Asinara.

YELLOW FEVER IN GREAT BRITAIN.

1817. The brig *Britannia*, from Liverpool, after being in the port of Falmouth for six weeks, began to discharge a cargo of bales of cotton. No sooner had the unloading begun than yellow fever developed, but the disease was limited to the crew of the vessel.

1852. In the month of November, the steamship *La Plata* arrived at Southampton from Saint Thomas. Yellow fever developed aboard

while she was in the port of Southampton, and of the 14 seamen who were taken ill 7 died.

1857. The steamship *Tamar*, which was suspected of being responsible for the grave epidemic of yellow fever at Lisbon, Portugal, in 1857, entered Southampton shortly afterwards. She had had deaths on the passage from Spain and gave rise to several cases of yellow fever at Southampton.

1864. In this year there were a few cases of yellow fever aboard a vessel lying in the harbor.

1865. In the month of September a sailing vessel arrived at Swansea from Santiago de Cuba. Yellow fever broke out aboard while she was in port and 15 persons died. There were no cases reported ashore.

YELLOW FEVER IN AUSTRIA.

1894. The history of yellow fever in Europe concludes with 2 deaths from the disease in hospital in Trieste. The Italian steamship *Colombo* returned to Genoa from Brazil, having had yellow fever aboard. She was detained for disinfection. Two of her crew went by land to Trieste, where they were stricken with yellow fever and died in hospital. There is no record of an extension of the disease.

ACKNOWLEDGEMENTS.

For assistance in collecting data for the history of yellow fever in Europe, acknowledgments are due to Professors Della Valle and Monticelli, of the chairs of comparative anatomy and zoology, University of Naples, for information regarding the mosquitoes of Europe : to the librarians of the University of Naples for courtesies extended at the library ; to the Sindaco of Torre Annunziata for access to the archives of that city, and to Dr. Enrico Buonocore, of Naples, for valuable help in making a research of the literature of the subject.

BIBLIOGRAPHY OF YELLOW FEVER IN EUROPE.

Villers, C.---C. Linnaei Entomologia faunae Sueciae aucta, etc., T. III. Lugduni, 1789.

Meigen, J. W.---Classification und Beschreib. der europe zweiflueghischen Insecten. Braunschweig, 1804.

Rondani.---Sulle specie italiane del genere Culex. Bolletino della Societa Entomologia Italiana. Anno IV. Firenze, 1872.

Ficalbi, Eugenio.-Revisione systematica della famiglia delle Culicidae Europee (Genere : Culex, Anopheles, Aedes) .Firenze, 1896.

Rapport sur l'epedemie de Fievre jaune de Lisbonne en 1857 par le Conseil de Sante du Royaume de Portugal.---Gazette Medical de Paris, Annee 34me, 3me Serie, volume 19me, 1864 numbers 34-40, page 533 et, 603.

D. Joaquim de Villalba.---Epidemiologia espanola, o historio cronologica de las pestes, contagios, epidemias y epizootias que han acaecido en Espana desde la venida de los Cartaginenses que han sufrido los Espanoles en otros reynes, y de los autores nacionales que han escrito sobre esta materia, asi en la peninsule como fuera de ella. Madrid 1802. Volume II.

Moreau de Jonnes.---Monographie historique et medical de la fievre jaune des Antilles, et recherches sur les lois du developpment et de la propagation de cette maladie pestelentielle. Paris, 1820.

Ozanam.---Histoire medicale generale et particuliere des maladies epidemique, etc. Paris, 1835. Volume 3, page 227, *et seq.*

Encyclopedia of Medical Sciences---Italian translation by M. G. Levi. Second Division, Volume I. Medical Pathology by Joseph Frank, page 445 *et seq.* Venice, 1837.

Dechambre.-Dictionnaire de Medicine. Article : Fievre jaune.

D. Jouan Manuel de Arejula.---Breve descripcion de la fiebre amarilla padecida en Cadiz y pueblos camercanosen, 1800; en Medina Sidonia, 1801 ; en Malagaen, 1803 ; y en esta misma plaza, y varias otras del reyno en 1804 Madrid, 1806.

Annali Universali di Medicina, Milano, 1802. Volume II, November, 1802. Compilation by Annibale Omodei---Volume II, November, 1802, contains a relation of the epidemics in Cadiz, Seville, and other places in Southern Spain by the Danish consul Schousboe from the publications of the Royal Danish College of Economy and Commerce. Volume XXIV, October, 1822, pages 103, *et seq.*, contain the report; on yellow fever in Barcelona in 1821 made by the National Academy of Barcelona in compliance with an extraordinary decree of the Cortes.

Journal Complementaire du Dictionnaire des Sciences Medicales Paris, 1822.---Vol. 8, pages 193 to 217 (Mazet, A. Relation abregee d'un voyage fait en Andalousie pendant l'epedemie de 1819). Also Vol. 13, page 156.

Bertulus.---La Fievre jaune a Barcelone au mois d'Aout dernier. Lettre a M. le Docteur Guardia. (Gazette Medical de Paris, 18, Fevrier, 1871.) Des principales importations de fievre jaune en Europe depuis 1800, jusqu' a 1862. et de la transmission de ce fleau. Lettre a M. le Docteur Jules Guerin, Marseille, 4 Juillet, 1863. (Gazette Medical de Paris, 1 Aout, 1863.)

Valevio Arditi.---A writing containing memoirs of the yellow-fever epidemic in Cadiz, 1800. Lisbon, 1804.

Arcere (de l'oratoire).---Histoire de La Rochelle. Volume 2, chapitre 4, La Rochelle, 1756.

M. Melier.---Relation de la fievre jaune survenue a S. Nazaire en 1861, lue dans les seances de l' Academie de Medecine dans les seances des 7,14, 21 et 28 Avril, 1863. Paris 1863. Memoires de l' Academie de Medecine, volume 26me.

H. de Gouvea.---Le Bulletin Medical. Paris, October 12, 1901. Les Moustiques et la fièvre jaune.

Angelo Moretti.---Opuscole sulla malattia di Livorno, tradutti dal Francese in Italiano. Siena, 1805.

Savaresy.---De la fièvre jaune en general et particulierement de celle qui a regne a la Martinique en l'an XI et XII (1803 et 1804) 2 volumes. Naples, de l'imprimerie Francaise, 1809.

Various documents in the municipal archives of Torre Annunziata. Encyclopaedia Britannica, Article. Yellow Fever.