WEEKLY ABSTRACT OF SANITARY REPORTS.

Vol. III. $\left\{ \begin{array}{l} Abstract \\ No. 44. \end{array} \right\}$

TREASURY DEPARTMENT,

OFFICE SUPERVISING SURGEON-GENERAL,

U. S. MARINE-HOSPITAL SERVICE,

Washington, D. C., November 2, 1888.

Abstract of Sanitary Reports received through the Department of State from foreign countries during the week ended November 2, 1888, and information received through other channels.

(Published in accordance with section 4, act approved April 29, 1878.)

England and Wales.—The deaths registered in 28 great towns of England and Wales during the week ended October 13 corresponded to an annual rate of 18.2 a thousand of the aggregate population, which is estimated at 9,398.273. The lowest rate was recorded in Derby, viz., 11.9, and the highest in Manchester, viz., 35.7 a thousand. Smallpox caused 1 death in Preston. Diphtheria caused 5 deaths in Manchester and 3 in Newcastle-upon-Tyne.

London.—One thousand five hundred and thirty-six deaths were registered during the week, including measles, 50; scarlet fever, 30; diphtheria, 26; whooping-cough, 18; enteric fever, 18; diarrhæa and dysentery, 43; simple cholera, 2. The deaths from all causes corresponded to an annual rate of 18.7 a thousand. In greater London 1,896 deaths were registered, corresponding to an annual rate of 17.9 a thousand of the population. In the "outer ring" the deaths included diarrhæa, 14; diphtheria, 8; scarlet fever, 6.

Ireland.—The average annual death rate represented by the deaths registered during the week ended October 6 in the 16 principal town districts of Ireland was 20.0 a thousand of the population. The lowest rate was recorded in Lurgan, viz., 5.1, and the highest in Armagh, viz., 25.8 a thousand. In Dublin 160 deaths were registered, including measles, 2; enteric fever, 3; scarlet fever, 2; diarrhæa, 13; whooping-cough, 7.

47

Italy.—The minister of the interior issued the following order under date of September 26, 1888:

[Translation.]

1888.—Marine Health Order, No. 11.

The minister of the interior, by virtue of the law of March 20, 1865, on public health, Supplement C, and the Ministerial instructions of December 26, 1871,

Decrees:

That from to-day on the sanitary treatment of vessels arriving in the ports of the kingdom with unclean bills of health owing to yellow fever is established as follows:

ARTICLE 1. Vessels recognized to be in good healthy condition will be admitted to free pratique after a medical visit, if it appears from the explicit declaration of the ship's surgeon—

(a) That aboard the same there have not been laden soiled effects for personal or domestic use, or at least that such effects were taken aboard after being washed or disinfected in a suitable manner.

(b) That during the voyage there has been neither a verified case nor a suspected case of yellow fever.

ARTICLE 2. Those vessels which are not found in the conditions indicated in Article 1 will be admitted to free pratique after a rigorous medical visit and a regular disinfection of the soiled personal and domestic effects; always provided that it appears from the declaration of the ship's surgeon, or in the absence of such officer, of the captain, that during the voyage there has been verified no case of the above-named disease.

ARTICLE 3. Those vessels furnished with a ship's surgeon, which, although having had cases of yellow fever during the voyage, remained free from it for at least 12 days after the complete cure or death of the effected persons, will be admitted to free pratique under the precautions indicated in the preceding article. In such case, however, a physician's certificate will be necessary, from which it must appear that the most rigorous disinfections have been made of the effects belonging to the diseased (malati), and of the places in which they were treated.

ARTICLE 4. Those vessels which, after having had cases of yellow fever aboard, arrive in a port of the kingdom, and are not found in the conditions indicated in the preceding article, will be sent to the maritime sanitary station, which, case by case, shall be designated by this ministry.

Those vessels may also proceed direct to the Asinara Station (Asinara Lazzaretto) before mooring in any Italian port, in order there to submit to the practices which this ministry may command.

ARTICLE 5. It will be in all cases forbidden to any vessel whatsoever, coming from regions infected with yellow fever, to discharge ballast, if of earth or of sand; such shall be made on the open sea at the distance of at least 5 kilometers from the shore.

ARTICLE 6. With the present order the preceding ordinance of May 29, 1878, No. 9, shall be understood to be revoked in all its parts.

Bordeaux, France.—Five hundred and twenty-two deaths were registered during the month of September, 1888, including enteric fever, 12; scarlet fever, 4; diphtheria and croup, 11.

Maceio, Brazil.—Eight cases and 2 deaths from small-pox were reported during the month of September, 1888.

Havana.—Seven deaths from yellow fever are reported for the week ended October 19, 1888.

MORTALITY TABLE, FOREIGN CITIES.

Cities.		Estimated popula- tion.	Total deaths from all causes.	Deaths from—								
	Week ended.			Cholera.	Yellow fever.	Small-pox.	Typhusfever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-
Barmen. Leghorn. Mayenee Cadiz Vera Cruz Gibraltar Kingston, Canada. Cape Haytien Saint Thomas, W. I. Laguayra. Paris. Glasgow Warsaw Amsterdam Munich Palermo Genoa. Trieste Toronto. Stuttgart Bremen Havre Pernambuca.	Oct. 1 Oct. 26 Oct. 13	109, 000 101, 854 65, 802 65, 028 23, 800 23, 631 17, 300 15, 000 15, 000 545, 678 444, 814 389, 916 250, 000 179, 780 130, 000 125, 510 122, 000 1122, 000 1122, 000 1122, 000 1122, 000 1122, 000 1122, 000 1122, 000	27 34 37 40 20 10 1 1 7 4 986 220 266 154 1140 62 28 37 34 108		1	1 1 7	7 1	7 2 1	10 3 21 3	24 6 8 2 1 1 1 3 2 2 1 4	5	2

UNITED STATES.

Palmetto, Fla.—The following has been received under date of October 20, 1888:

I sent telegram reporting situation for week ending October 14, since which time to the present, 9 p. m., 20th, there have developed only 3 new cases in Palmetto and 1 new case in Manatee.

There are about four families, living in the outskirts of the town, who have not been much exposed. I have had board of health to quarantine these, and if we can prevent these from getting fever I don't expect more than 6 or 8 more cases. Last death on 9th.

don't expect more than 6 or 8 more cases. Last death on 9th.

The people here, as a rule, are poor. They depend chiefly for a living on the vegetables which they ship to northern markets. On account of the fever they will not be able to raise vegetables this winter; have been unable yet, in consequence of quarantine, to prepare for it.

Five dollars which Dr. Murray sent to help the needy is every cent of help Palmetto has received from the charitable. They can boil their bedding (quilts and blankets, &c.), but I think it would be safer to destroy their mattresses. Should they be destroyed, however, nine-tenths of the people could not replace them, and they argue that they have all had the fever and are not willing to destroy their property unless they were able to replace it, to prevent the possibility of some one else getting the fever. Our county board of health is too poor to relieve us.

On 22d September I discharged two guards, McLean and Pickens, and have had one do the work formerly done by these two. This guard has been necessary, and will be so long as we have to keep up

the quarantine.

Very respectfully,

M. B. HARRISON.

The following inspection reports have been received from Sanitary Inspector Hartigan:

OCTOBER 21, 1888.

Sanford, Orange County, Fla., is situated on the south shore of Lake Monroe, at the head of navigation for large steamers on the St. John's River. It is a business center and distributing point, its streets are broad and regular, the soil is a sandy loam. In addition to the water facilities, five railroads enter the city, placing it in rapid communication with every section of the country. The town is on a broad plain rising from the lake evenly and reaching an elevation of forty feet in less than a mile, thus favoring thorough drainage. Immediately adjacent is the Sanford grant of 10,000 acres, embracing all kinds of land. Since the yellow-fever scare many improvements have been inaugurated to put the city in a good sanitary condition. A late ordinance requires the removal of plank sidewalks. Except in the business streets, which are brick or asphalt, these will be replaced by shell from prehistoric mounds that are found along the water courses; it consists principally of periwinkles and snails and a liberal sprinkling of broken pottery.

There are twenty-five to thirty artesian wells now in use. The outlet from these is 15,000 to 80,000 gallons daily for each well, which is carried through seven or eight drains, emptying into the lake. These drains also carry off the excess of storm-water. Along the southern limits is a large trench which carries off the swamp-water and intercepts that which flows from more elevated places, thus preventing it from entering the town. These drains will soon be reinforced by wells which will be sunk along Sixth street, where there is a ridge, throwing the water northwards into the lake, and in a southerly direction will

communicate with the larger ditch above referred to.

The climate of Florida is generally regarded as the most equable in the country, not being subject to either extremes of heat in summer or cold in winter. The nearness of the gulf stream causes the trade winds of the Atlantic to sweep over the land from east to west during the day, lapping moisture from its numerous lakes—the returning cool winds from the gulf gently blowing across the State by night.

Following are meteorological data for two years at Sanford, commencing July, 1885, and ending June, 1887, furnished me by Observer Hersey of the Signal Service:

	Mean temper- ature.	Highest tem- perature.	Lowest tem- perature.	Rainfall.
	Deg.	Deg.	Deg.	Inches.
1885—July	79.5	94. 7	70.0	5. 52
August	79.7	94. 9	70.0	6. 75
September		93.8	68.4	10.73
October	70.4	90.4	48.2	7.48
November	62. 7	86. 5	34. 9	0. 29
December	55, 6	84. 9	32. 0	1.85
1886—January*	53. 1	77.0	21.0	4.77
February		78.7	31. 3	1.18
March		86.0	42.4	8.17
April	66. 1	86.0	44.2	6. 60
May		93. 1	57. 6	0.89
June		94. 7	65. 0	11.08
July	78.1	93. 3	66.8	10. 21
August	79.6	94.4	67. 9	4. 12
September	79.3	92.4	65.5	5. 01
October		85. 8	56.0	8. 75
November	63. 9	82. 2	42.4	0.79
December		78.0	33, 3	3, 20
1887—January		79. 9	31.7	1.32
February		84.7	44. 1	1. 10
March		82. 7	39. 4	2, 22
April		89. 8	44. 0	3. 19
May		90. 7	54. 3	3. 22
June	77.6	94. 8	64. 4	6. 12

Yearly average temperature, 1885-6, 68.24° ; 1886-7, 69.87° . Rainfall, 1885-6, 65.31 inches; 1886-7, 49.25 inches. Trade winds from N. E. and S. E. were the prevailing winds.

Sanford is supplied with water from a lake 3 miles south of the town. It flows by gravitation through a main $2\frac{1}{2}$ miles to the reservoir, which holds 200,000 gallons. From the reservoir it is forced into the pipes by the Holly system of water-works. It is thought by Doctors Wylly and Montgomery that its purity is affected by the storm water draining into it. Another possible source of contamination in the future, they claim, is the proximity of the cemetery, which is one-fourth of a mile distant and situated on an elevation. Property-owners throughout the city are gradually introducing more artesian wells. Cistern water is used to a limited extent. There are no surface wells

Night-soil is carted 2 miles southeast of town, and converted into a fertilizer. It is mixed in 20 per cent. of plaster and 6 per cent. sulphate of potash, dried cow-chips being used as an absorbent. All the privies are furnished with duplicate zinc buckets, and regularly changed. They contain both fluids and solids, and in this way are removed to the pondrette establishment. Garbage is hauled westward 1½ miles from limits of town, where it is dumped and burned.

^{*}Month of severe frost, which was considered unexampled, and destroyed the fruit crops in nearly every section of the State. Only the younger orange trees, however, suffered to any great extent, as the present year's crop is larger than any former one.

Burial permits are required. There were eight deaths between April and October, 1888, only one being from zymotic causes.

Mayor, H. L. Lillienthall; city physician, Dr. J. S. Montgomery;

population, 3,500, about one-fourth of whom are colored.

An epidemic of dengue prevailed in Sanford in 1883, but there were no deaths. According to Dr. King Wylly, a leading practitioner there, the disease was ushered in abruptly by a chill, usually at night, followed by fever. This was at its height in 6 hours, and subsided generally in from 18 to 20 hours. The highest temperature noted was 105°; during remission it would fall to 100° and 101°, with subsidence of pain, nausea, and the other violent symptoms. Then apparently another attack similar to the first, and occasionally a third attack would take place. The violence of the attacks seemed to be manifested every other day. Tongue was furred, with other indications of torpid liver. Quinine generally controlled the disease. Eruption in majority of cases, and desquamation lescence was slow. only in the worst forms was seen. It is the opinion of the doctor and other observing physicians that as a rule dengue follows yellow fever the next year, even in districts where there has been no yellow fever. In 1882 Pensacola had yellow fever; dengue developed there in 1883, and swept over the entire State. So with Savannah in 1876 and 1877. In Tampa there is dengue this year. So surely contagious is it, that a man coming where it prevails, from the country, is sure to catch it and carry it wherever he goes. One illustration given was that of a whole circus company being seized with dengue in Macon in 1877 after performing at Savannah.

Yellow fever was introduced into Sanford on the 8th October last year by a colored family who came from Tampa with their bedding. The first person who had it outside of this family was a young white man for whom they did laundry-work. This young man's nurse in turn contracted the disease; and so it spread, until there were 150 cases in all and 8 deaths.

Respectfully submitted,

J. F. HARTIGAN.

OCTOBER 22, 1888.

Orlando, the capital of Orange County, is 200 feet above the sea, and lies 120 miles south of Jacksonville. It has a metropolitan look. The

population is 5,500, about one-third being colored.

Probably there is no town in the State whose development has been more rapid, or whose growing tendency and permanency is more secure. It is beautifully situated in the heart of a productive country, with ample railroad facilities, and has a most enterprising population. Orlando has another attraction. Within the city limits and vicinity there are sixteen to twenty spring-water lakes, some of them quite large. From one of the purest of these her water supply is obtained, which, according to analysis, is not excelled anywhere. The works are two miles northeast of city, and situated on an elevation a few hundred yards off is the standpipe. This is more than sufficient for all emergencies. A small portion of the population use surface wells.

The same system of zinc buckets are in use here that I found at Sanford. The matter is carted out in them a considerable distance beyond the suburbs, and there made into a fertilizer. It is mixed with dried

muck, which is indigenous to the place, and then screened. It makes a very rich soil, has no offensive odor, and is in active demand.

This method of disposing of night soil, in a place like Orlando, is perhaps as good as anythat can be devised—in my opinion—as it is impracticable for any town to empty sewerage into any body of water, unless it be running or tidal water, otherwise the matter would be continually accumulating where deposited, and in time become a nuisance and source of danger to the health of the community.

The cemetery is on an elevation two miles southeast of center of town. No burial permits are required, but soon will be. There were 28 deaths from May 1 to October 1, 1887, 4 being zymotic diseases. From May 1 to October 1, 1888, 27 deaths; 10 zymotic. No case of yellow fever

has ever been known in Orlando.

Mayor, Dr. F. S. Chapman; city physician, Dr. R. N. Dickenson. Respectfully submitted,

J. F. HARTIGAN.

OCTOBER 24, 1888.

Bartow, the county seat of Polk county, is the southern terminus of the Bartow branch of the Southern Florida Railroad, and of the Pemberton Ferry branch of the same road; it is also the northern terminus of the Charlotte Harbor division of the Florida Southern Railway. The town is two miles square; it was incorporated in 1884; its elevation is about 100 feet, and its soil is a dark spongy loam. Population, 2,500; about one-fourth colored. Farming is the principal industry. Rich pine, live oak, and hamack growths surround it everywhere.

The location of Bartow is most favorable for drainage. It is on a broad, flat hump, sloping north, east, and west, into a run which extends to Peace River. After the heaviest rain the water does not stand

an hour.

Water is obtained principally from wells, averaging 35 feet deep. In sinking them, in every case, five or six feet of rock have to be drilled through, showing the whole town to be on a bed of rock, similar to that found on the coast; the rock is generally 30 feet below the surface. This fact affords immunity from contamination, and is the reason there are no such evil results here as are seen from wells elsewhere. After the rock is drilled a pump is sunk. There are some open wells, averaging 25 to 30 feet, from which water is obtained on the surface of the rock; this is far inferior to that below the rock. About 10 per cent. of the population use cistern water.

The same system of buckets is used here as at Sanford and Orlando. The soil, after disinfection with lime and copperas, is carted two miles from town to a dumping ground in a low place near Peace River, which

empties into Charlotte Harbor and the Gulf.

Mayor, Dr. J. P. Statham; secretary board of health, Dr. F. M. Wilson. No burial permits are issued. The cemetery is two-thirds of a mile from centre of town.

Dr. Wilson states that during five year's practice there have not been more than ten cases of typhoid fever, and none of dengue.

Respectfully submitted,

J. F. HARTIGAN.

OCTOBER 23, 1888.

Kissimmee, the county seat of Osceola County, is situated at the head of Lake Tohopekaliga, on the South Florida Railroad. It is 54 feet above the sea, and has a population of 2,000. The town only dates from 1883, when the Okeechobee Drainage Company, who had a contract with the State, commenced the gigantic undertaking of reclaiming 5,000,000 acres of land. Canals were cut communicating with the chain of lakes and Kissimmee River, leading down 75 miles to Lake Okeechobee and the Gulf. One of the results of these operations is the establishment of a mammoth sugar mill, and plantations 6 miles from the town on the richest kind of muck soil. Thousands of acres of newly drained lands in the vicinity are now being utllized, where steamboats floated only three years before. The sugar industry therefore of South Florida bids fair to rival the orange.

Cistern water is principally used, although water from the lake is

being gradually introduced. There are some few surface wells.

Open air privies are in use almost exclusively, and most of the matter is systematically disinfected and removed a mile outside, where it is burned with sweepings from the town. A large proportion however is buried in the yards.

Ditches are dug for drainage which flows towards the east and empty into the lake. About the centre of town is a ridge running north and south, and sloping east and west, emptying into the lake in the east, and in the west the storm water is carried off from a valley along a circuitous route into the lake a mile south of the town.

No burial permits are issued, but an ordinance has just been passed requiring them. The present cemetery is half a mile from centre of town. It has been ordered to be abandoned and removed 1½ miles north. There were not more than 6 deaths from May 1st to October 1st, 1888.

Mayor, J. W. Aderhold; health officer, Dr. S. G. Worley. Doctor Worley says he has seen no typical cases of malarial or typhoid fever. "Dengue," however, prevailed to a certain extent; it simulates typhoid, but is amenable to antiseptic treatment, such as salol, creosote, and bichloride of mercury. It attacks all ages. Some deaths have occurred, perhaps two per cent. But the disease has practically subsided since the surface wells have been in a measure abandoned. The deaths that have taken place, he thinks, seem to have been due to septic poisoning, inasmuch as suppuration of the parotid glands have occurred in some instances.

When the doctor first came here six years ago he treated it for typhoid, but the result was unsatisfactory. He therefore thought of the septic theory, from its clinical course. Unlike typhoid fever, there was a tendency to remit from time to time; besides the highest temperature was in the morning. It also lacked the usual incubative period of that disease. Quinine seemed to intensify the nervous symptoms, which predominated in every case. He observed no eruption or desquamation.

tion.

The disease commenced abruptly, accompanied by gastric irritation and vomiting, temperature some times reaching 106°. It only assumed the form of typhoid or continued fever after the third or fourth day, then prostration and low muttering delirium; in some instances sudamina, rose-colored spots, hæmaturia, &c. He claims that he has uni-

formly aborted the disease since he adopted the salol treatment. He had only seen it among those who had used surface water. In every instance it was traceable to these wells. It is known by various names, as physicians thought fit to call it, such as typho-malarial dengue, relapsing fever, &c. It is a disease of South Florida, and in his opinion is a hybrid form of typhoid, modified by the peculiar conditions of the climate, and quite amenable to salol and like antiseptic measures.

Respectfully submitted,

J. F. HARTIGAN.

OCTOBER 22, 1888.

Titusville, the county seat of Brevard County, is situated on the west bank of Indian River, 12 miles from its head, 18 miles from the ocean. It was incorporated in 1886; soil a sandy loam. A branch of the Jacksonville, Tampa, and Key West Railroad enters the place from Enterprise Junction, over which road visitors come to pass the winter along the banks of the river down to Lake Worth, 180 miles distant.

Following is Titusville meteorological register for the past year:

	Mean temper- ature.	Highest tem- perature.	Lowest temperature.	Rainfall.
	Deg.	Deg.	Deg.	Inches.
1887—July	80.5	98.8	67. 9	7.82
August	80.8	94. 4	69. 4	2.47
September		91. 7	64. 0	6. 32
October	74.8	87. 0	44.8	12.17
November	65. 4	81.9	32. 5	0.88
December	63. 2	81.0	40.2	1. 91
1888—January	62.5	80. 5	36. 5	0.74
February		81.0	37. 9	7. 11
March	63. 4	87. 0	41.0	2. 16
April	71.6	86.8	56.0	2. 59
May	7 5. 3	88.0	62. 0	2.92
June	78.7	93. 1	60. 1	6. 56

Yearly average temperature, 71.47°; rainfall, 53.65 inches; prevailing winds, S. E.

A ridge runs through the town north and south, 16 feet above the river, gradually sloping on the east to the river and west to a little communicating stream. Four main ditches carry off the rainfall.

Water, so far, is obtained principally from driven wells, averaging 20 feet deep. It is considered wholesome. Several cisterns are also in use. About six weeks ago an artesian well was begun. At about 130 feet, water, strongly impregnated with salts and sulphur, began to flow. At the present time 700 feet have been reached without any perceptible change in it. Already nearly 600 feet of rock has been drilled, and the contractor thinks when he penetrates this he will find a vein of fresh water. At Smyrna, 40 miles north, and Daytona, 55 miles, also south at Rock Ledge, 20 miles, a pure water is obtained at only 150 feet deep.

Night-soil is carted off 2 miles beyond the town, and, after disinfection, is used for agricultural purposes. Garbage is gathered together as far as practicable and burned. It is intended to improve the drainage and sewage system the ensuing winter.

No burial permits are issued. There were five deaths from April to October, 1888, one being from typho-malarial fever, contracted away from his home.

The cemetery is situated 3 miles from town, about 18 feet above water-level.

Mayor, George B. Rumph; physician and member county board of health, Dr. B. R. Wilson; population, 1,200; one-third colored.

Respectfully submitted,

J. F. HARTIGAN.

TAMPA, FLA., October 27, 1888.

In compliance with Dr. M. B. Harrison's request I forward the letlers herewith inclosed.

Doctor Pelot denied the existence of yellow fever at Manatee last fall and this summer. Like many other physicians in the State, he either does not know yellow fever when he sees it or else will not admit it on account of popular pressure. I am thoroughly satisfied that unless you remain in charge of the State and keep up a course of investigation during the winter there is great probability of the fever hibernating again at Manatee and other points.

You have experienced for yourself how senseless the people and press of Florida can be when the truth conflicts with local interest of any community. I am determined after this season to have nothing to do with public health matters, unless paid a liberal salary, and have so written to the Governor. I will no longer hold any office whose emolument is abuse.

Unless the Governor calls an extra session of the Legislature this body will not convene till in April, when the season for eradicating the disease will have passed, hence the importance of your remaining in charge. Though more than I, do not see how you can accomplish much without the cordial support of these internal county boards of health.

Four new cases in the last two days. No deaths since last report.

Very respectfully,

JOHN P. WALL.

Palmetto, Fla., October 24, 1888.

I am placed in an awkward position, and deem it my duty to write you for advice and instructions.

You have been informed that Doctor Pelot, a local physician at Manatee village, has denied the existence of yellow fever on the Manatee River, while, in the opinion of Doctors Wall, Murray (United States Marine-Hospital Surgeon), and others, we have had it here, at least since last July. Doctor Murray was ordered off from here about September 1st, leaving me in charge as inspector, telling me to look after the yellow fever on the river, and make weekly reports by telegraph to you until you ordered me to discontinue them.

I understood that it was my duty to see all "suspicious cases" here, and whenever and wherever I found a case of yellow fever on Manatee

River, to report it.

I have done so up to the present time. Last week I was sent for to see a case at Manatee. When I got there I found it a well-marked case

of yellow fever, in my judgment; that Doctor Pelot was attending the case, and, while I did not see Doctor Pelot, I understand he pronounces it a case of "dengue." Through one of the members of the Board of Health, I learned to-day that another member of the same family took fever yesterday, and that he saw a case of Doctor Pelot's yesterday, at Braidentown, which, in his judgment (and he is an intelligent man, of a large family, and all his children have just had yellow fever), it was a well-marked case of yellow fever. I intended visiting these cases today, but the President of our Board of Health, a brother-in-law of Doctor Pelot, made such remarks as to deter me. Such as "Doctor Pelot was an eminent man and physician, who had been and was respected; that he had the confidence of at least many people; and that while Doctor Murray, a surgeon, might be sent by the Government to inspect suspicious cases, he, Doctor Murray, could not delegate that authority to another; that Doctor Pelot did not like any other physician, who had no authority do so, to visit his patients without an invitation from him, or at least having his consent to do so, &c." Such was about the substance of what he said.

Now then, I am quite well convinced that some one is opposed to having me find yellow fever on the south side of the river, either at Manatee or Braidentown; and I fully believe, from information, that there is at least one case in each of those places; but until, or unless clothed with authority from you, I can have nothing more to do with Doctor Pelot's cases.

Very respectfully, &c.,

M. B. HARRISON.

OCTOBER 26, 1888.

Fort Meade, Polk County, incorporated June, 1885, is situated 10 miles south of Bartow, on the Florida Southern Railway. It is embowered in orange groves and in the heart of a rich pine and hummock country. The population is 800, 10 per cent. being colored.

Here also, as at Bartow and other Florida towns, a ridge runs north and south, adapted by nature for the important purpose of drainage; in the east it slopes to Peace River, and westerly to a run which com-

municates along a circuitous route with the river.

About one-half of the population use cistern water. The other half is obtained from wells which are sunk about twenty feet through a clay bed, then bricked and cemented to keep out the surface water. In some cases the wells are curbed from the bottom with pine boards. The country is well supplied with fresh water springs.

A mild form of remittent or bilious fever prevails, which is easily managed. Typhoid is rare and only seen in the country. Dr. Weems

attributes its cause to drinking rotten limestone water.

Open-air privies are the rule, but there is no ordinance requiring methodical removal. An inspector, however, requires the people to use dry earth and lime, and in most cases it is then converted into a fertilizer.

The cemetery is within the corporate limits. No burial permits.

Mayor, William Thompson; member county board of health, Dr.
W. L. Weems.

Respectfully submitted,

J. F. HARTIGAN.

OCTOBER 26, 1888.

Arcadia, De Soto County, is 50 miles south of Bartow, on the Florida Southern Railway, and has a population of 250.

Mayor and physician—Dr. Edward Greene.

Five or six stores on the line of railroad constitute the business portion. On an oak ridge a few hundred yards west, across a branch, 30 or 40 houses are scattered.

The water supply is from surface wells. There is no system of disposal of the contents of privies, which are generally above ground.

With the exception of ridge above mentioned, the vicinity is low and flat, and in some places swampy. Remittent and intermittent fevers are the prevailing diseases. Cattle raising, principal industry.

Respectfully,

J. F. HARTIGAN.

OCTOBER 26, 1888.

Fort Ogden, De Soto County, is 10 miles south of Arcadia, on same line of railway. Population, including surrounding country, about 350. Mayor, I. O. Carr; physician, Dr. O. E. Rush.

This place is higher than Arcadia, and in addition to the cattle in-

dustry, orange culture is considerable.

The water supply is from wells. There is no systematic disposition of night soil.

Respectfully,

J. F. HARTIGAN.

DEPARTMENT OF HEALTH,

Brooklyn, N. Y. No date.

DEAR SIR: John Jellard, captain Steamship Ceareuse, Red Cross Line, from Pernambuco and Para, died in this city yesterday, 9 p. m., of yellow fever.

Vessel arrived at quarantine October 22d, city same day. Captain taken sick and in bed Friday the 19th.

Vessel ordered out of city's jurisdiction.

Respectfully, yours,

R. C. BAKER, M. D.

J. B. Hamilton,

Supervising Surgeon-General.

Tampa, Fla., October 24, 1888.

DEAR SIR: For the week ending to-day there have been only 2 cases of yellow fever reported, and 1 death on the night of the 22d inst. This patient had no physician, and I was called to see her an hour or so before she died. I have heard of a few other cases of fever—probably as many as 4 or 5—which were probably cases of the fever.

If new material can be kept out of here, the fever must soon cease. For the past week the weather has been very warm for the season.

The recent death makes a total of 6 for the season, so far since the 7th of August.

Very respectfully,

JOHN P. WALL, M. D.,

President Board of Health.

Surg. Gen. J. B. HAMILTON,

Washington, D. C.

SURGEON'S OFFICE, Fortress Monroe, Va., October 29, 1888.

SIR: I have the honor to report that seaman Tore Sanchez, of the Spanish Steamship "Bunaventara," died in hospital on Fisherman's Island, on the 27th instant, of yellow fever. The ship will be thoroughly cleansed and disinfected before her release from quarantine. No other cases have occurred.

Very respectfully, L. L. WILLIAMS, P. A. Surgeon, M. H. S.

The SURGEON-GENERAL,

U. S. Marine-Hospital Service, Washington, D. C.

Gainesville, Fla.—Dr. Martin telegraphs as follows:

October 26: "One death, D. D. Sillghman (white)."

October 26: "One new case (colored); 2 cases under treatment."

October 27: "One new case (colored)."

Enterprise, Fla.—Dr. Posey telegraphs as follows:

October 29: "Seventeen cases on hand; 2 deaths in last 48 hours; area of infection extending into country."

November 1: "One new case to-day; no deaths. Census being taken shows large idle colored population, and unless epidemic subsides shortly will have to be fed."

Palmetto, Fla.—M. B. Harrison telegraphs as follows:

October 30: "For week ending 6 p. m., Monday, October 29, there were at Palmetto Fla., new cases of yellow fever, 3; deaths, 1. Total number cases to date, 82; total number deaths to date, 8."

Live Oak, Fla.—Passed Assistant Surgeon Urquhart telegraphs as follows:

October 28: "Dr. Hankins reports a case of yellow fever at this place. He desires an expert to investigate it. I have had the house quarantined."

October 30: "No mail is put off here. Cars will have to be moved. There are two more people ailing here."

November 1: "Doctor Hankins reports 4 cases here. Will go with (fumigating) cars immediately to Dupont. The F. R. and N. train is ordered not to stop here. No passengers from infected points to-day."

Mayor Carroll telegraphs November 1: "Can you send a yellow-fever expert here immediately?"

Camp Perry, Fla.—Surgeon W. H. H. Hutton telegraphs as follows: October 25: "Morning report. Present: Officers, 5; guards, 11; employés, 35; refugees arrived, 9; discharged, 6; remaining, 134. Fever camp, 4."

October 26: "Morning report. Present: Officers, 5; guards, 11; employés, 35; refugees arrived, 26; discharged, 8; remaining, 152. Fever camp, 4—all convalescent."

October 26: "Doctor Posey reports 12 cases and 2 deaths at Enterprise; also great destitution. Wants nurses and supplies. Will instruct him to apply to Dr. Porter for supplies."

October 27: "Mr. Upton, of Uptonville, 12 miles north, returned there from Baldwin Monday; Tuesday reported sick. Sent Guiteras and Posey, who reported case suspicious. Brought Upton to camp yesterday; to-day brought a second case to camp. Have prohibited passenger-trains stopping there. Fumigated Upton's premises, and will keep close watch on the place."

October 27: "Morning report. Present: Officers, 5; guards, 11; employés, 38; refugees arrived, 28; discharged, 17; remaining, 163. Fever camp, 5."

October 28: "Morning report. Present: Officers, 5; guards, 11; employés, 38; refugees arrived, 36; discharged 14; remaining, 185. Fever camp, 5—last 2 cases brought from Uptonville."

October 29: "Morning report. Present: Officers, 5; guards, 11; employés, 38; refugees arrived, 3; discharged, 26; remaining, 162. Fever camp, 5."

October 30: "Morning report. Present: Officers, 4; guards, 11; employés, 38; refugees arrived, 5; discharged, 20; remaining, 147. Fever camp, 4. Doctor Guiteras examined every man, woman, and child, and every house and room in Baldwin, and did not find a case of sickness of any kind. Place perfectly healthy."

October 31: "Morning report. Present: Officers, 4; guards, 11; employés, 39; refugees arrived, 6; discharged, 30; remaining, 123. Fever camp, 5."

November 2: "Morning report. Present: Officers, 4; guards, 11; employés, 40; refugees arrived, 3; discharged, 11; died, 1; remaining, 124."

Jacksonville, Fla.—Dr. J. Y. Porter telegraphs as follows:

October 25.—"New cases, 71; deaths, 2; total cases, 3,974; deaths, 339. Patients, St. Luke's, 10; Sand Hills, 14."

October 25.—"President board of health at Enterprise wires this a. m. nine cases; six in critical condition; himself only physician up. Need fumigating material and everything for taking care of population of 500. I have wired that Posey would go."

October 26: "New cases, 23; deaths, 2; total cases, 3,997; deaths, 341. Patients, St. Luke's, 12; Sand Hills, 12."

October 27: "New cases, 46; deaths, 4; total cases, 4,043; deaths, 345. Patients, St. Luke's, 10; Sand Hills, 13."

October 28: "New cases, 16; deaths, 3; total cases, 4,059; deaths, 348. Patients, St. Luke's, 10; Sand Hills, 12."

October 29: "New cases to-day, 36; deaths, 4; total cases reported, 4,095; deaths, 352. Patients, St. Luke's, 11; Sand Hills, 9."

October 30: "New cases, 32; deaths, 1; total cases, 4,127; deaths, 353. Patients, St. Luke's, 7; Sand Hills, 6."

November 1: "New cases, 56; deaths, 2; total cases reported, 4,210; deaths, 356. Patients, St. Luke's, 11; Sand Hills, 4."

MORTALITY TABLE, CITIES OF THE UNITED STATES.

		onla-	rom	Deaths from—										
Cities.	Week ended.	Estimated popula- tion.	Total deaths from	Cholera.	Yellow fever.	Small-pox.	Varioloid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-
New York, N.Y Philadelphia, Pa Brooklyn, N. Y	Oct. 27 Oct. 20 Oct. 27	1,539,908 1,016,758 805,855	673 337 296		 1.					13 2 12	16 4 4	23	6 2	14 3 5
St. Louis, Mo Baltimore, Md	Oct. 27 Oct. 20 Oct. 27	800,000 440,000 431,879	169 157			:: • ::				6	1	$\frac{14}{2}$		2 1
Boston, Mass San Francisco, Cal	Oet. 27 Oet. 19	415,000 300,000 255,139	195 100 98							8 2 3	1	13	1	î
Cincinnati, Ohio New Orleans, La Pittsburgh, Pa	Oct. 27 Oct. 20 Oct. 20	$248,000 \\ 230,000$	121 73							11		5		1
Washington, D. C Washington, D. C Louisville, Ky	Oct. 20 Oct. 27 Oct. 27	225, 000 225, 000 200, 000	106 92 60						١	9 11 9		2 2		2
Milwaukee, Wis Kansas City, Mo Minneapolis, Minn	Oet. 27 Oet. 27 Oet. 20	195,000 180,000 180,000	40							3 5 7	3		2	
St. Paul, Minn Newark, N. J Rochester, N. Y	Oet. 20 Oet. 23 Oet. 27	175,000 174,954 120,000	49 82						! 	8	1	4		
Denver, Colo Columbus, Ohio	Oct. 26 Oct. 27	96,000 93,000	32 25						`	8		1		
Toledo, Ohio	Oet. 19 Oet. 27 Oet. 27	80,000 65,153 65,000	27 22											i
Charleston, S. C Evansville, Ind Savannah, Ga	Oet. 20 Oet. 27 Oet. 26	60, 145 53, 000 52, 827	12 23									1		
Lynn, Mass Manchester, N. H Mobile, Ala	Oct. 13 Oct. 20 Oct. 27	50,000 41,000 40,000										4		
Portland, Me Wheeling, W. Va East Saginaw, Mich	Oct. 27 Oct. 20 Oct. 27	40,000 35,000 33,000	13											
Davenport, Iowa New Albany, Ind	Oct. 27	30, 084 30, 000	4							2	2	: 1		
Wheeling, W. Va Altoona, Pa New Bedford, Mass	Oct. 27 Oct. 20 Oct. 27	30,000 29,546 26,845	5 14						·	1		2		
Auburn, N. Y	Oet. 27 Oet. 27 Oet. 20	26,000 25,009 22,500												
Poughkeepsie, N. Y Newport, R. I Pensacola, Fla	Oet. 19 Oet. 25 Oet. 27	22,000 20,466 15,000	7 10 10							2 2				

JOHN B. HAMILTON,