

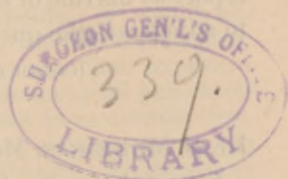
[Fever prevailing in parish
of Plaquemine, Sept. 1880.]



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[Fever prevailing in parish of
Plaquemine, September 1880.

EDITORIAL.



We lay before our readers the following reports in regard to a form of fever recently prevailing on the lower Mississippi river. The circumstances which elicited these reports are as follows: The senior editor of this Journal having been informed that the oldest practitioner in the Parish of Plaquemine, had pronounced a fever prevailing in that parish to be yellow fever, requested Dr. G. M. Sternberg of the U. S. Army, now on special duty in this city, to go down and investigate the disease. The report of Dr. Sternberg, published first, will show his opinions in regard to the matter. Some question being made in respect to the correctness of Dr. Sternberg's conclusions, the writer acting in his capacity as a member of the National Board of Health, determined in the interests of science as well as in the paramount interests of public health, to order a new investigation.

To this end he requested Dr. J. Dickson Bruns and Dr. J. P. Davidson to unite themselves with Dr. Sternberg in a second visit to the seat of prevalence of the fever, and after due investigation to make a further report. Our readers will see that the result has been two reports, one, signed by Dr. Bruns and Dr. Davidson, and the other by Dr. Sternberg, alone.

The gentlemen signing the majority report are two of the most accomplished and experienced physicians in the City of New Orleans. Dr. Sternberg's reputation in the scientific world is sufficiently well known to require no notice at our

hands. In the action as above set forth, the writer was seconded and assisted by his colleague on the National Board of Health, Dr. R. W. Mitchell, who also accompanied the commission, but without participation in their discussions or reports.

It is proper also to say that the writer adopted the majority report as his rule of conduct, but by this action did not presume to adjudicate the questions at issue from a scientific standpoint.

[Copy of Report by Dr. Geo. Sternberg, U. S. A.]

NEW ORLEANS, September 10th, 1880.

Dr. S. M. BEMISS, Member National Board of Health :

SIR—I have the honor to report that, in compliance with your request, I have visited Point Michel and Point a la Hache for the purpose of ascertaining the nature of the sickness prevailing there. Dr. Hays, in whose practice most of the cases have occurred, aided me in every manner possible, and in his company and that of Dr. Taylor, who represents the State Board of Health, I visited about twenty cases of the prevailing fever. Many of Dr. Hays' patients are convalescent, but in the practice of Dr. Hebert, on the opposite side of the river, I found three recent cases in one house, and three in another distant five miles from the first. In one of these houses, we also found the dead body of Andrew Dragon, a light mulatto, aged 17, who died about two hours before our arrival. Dr. Hays has had in his practice 61 cases, and Dr. Hebert, so far as I could learn, 7 cases of the prevailing fever. The first case occurred August 15th in the practice of Dr. Hays, on the right bank of the river, seven miles below his house.

The following day, a case occurred two miles above the first. On the 20th (Aug.), another case occurred in the vicinity of the first, and one within two miles of Dr. Hays' house. On the 22d, two cases; on the 23d, two cases, and on the 24th, two cases were taken sick, in the neighborhood of the first case. On the 24th, three cases also occurred in a locality $1\frac{1}{4}$ miles above the Doctor's house, this was followed by three on the 25th, and three on the 26th, in the same locality. Dr. Hays was also called to see a case on the opposite side of the river, four miles below his house, on the 23d. In the locality, $1\frac{1}{4}$ miles above Dr. Hays' house, four children have died in the family of Giordano. The two remaining children in the family had been seriously sick, but at time of my visit appeared to be convalescent. A young man named Littel, aged 19, also died in this vicinity, making six deaths in all on both sides of the river, in a total of 65 cases. It is not my intention at present, to study this local epidemic from an etiological

point of view : I desire simply to state such facts as I was able to glean, in a single day, which have a bearing upon the question of diagnosis. While abundant rains fell during the month of August, above and below this vicinity, I am informed that for a month, until quite recently, there was no rain in this immediate neighborhood, also that a disagreeable odor was observed to come from the *batture* along the river bank. Rice is cultivated extensively in the vicinity, and one or two of the cases were taken sick while at work in the rice fields. I would observe here, however, that nearly all of the cases are young children, and that the adults who by reason of their exposure in the rice fields, would be most subject to malarial poisoning have to great extent escaped. The cases have mostly been children of French creoles—light mulattos—who constitute the greater portion of the population in this vicinity. I inquired as to whether any of the cases had previously suffered from yellow fever, but could not get any very definite information. A similar fever prevailed in 1878, which some physicians called yellow fever, but Dr. Hays believes it also to have been malarial fever. The area in which this fever prevailed, on the right bank of the river, was somewhat different from that in which most of the cases have occurred this year. The fever of 1878, did not extend below a certain point, while the fever of this year has been mostly below this line. As to the nature of the disease, it is a continued fever of a single paroxysm, lasting it is said from a few hours to four or five days. No regular temperature observations have been made, but from the statements of Dr. Hays, and my own observations, I am satisfied that the fever is of a mild grade, and not characterized by remissions or intermissions. The highest temperature observed by me was $103\frac{1}{2}^{\circ}$, (second day of disease). At the outset of the attack the eyes are glistening, pupils more or less dilated, gums, bright red and swollen, tongue slightly or heavily coated with a white fur. In some cases it was almost clean and in one dry and brownish. The skin is usually moist and perspiring. In two cases I noticed that the excitement caused by our presence caused the perspiration to cease and the skin to become dry. Pulse rather soft and not very frequent (in two cases, second day, in which I counted, it was 100). Slight pain in head and loins, at commencement of attack. Afterwards no pain was complained of, except occasionally some epigastric distress. There was bilious vomiting at the outset, in some of the cases. In others no vomiting occurred. In only one of the fatal cases (child of Giordano) was there a suspicion of coffee-ground vomit. One or two had nose-bleed, at the commencement of the attack. No other hemorrhages were reported. Dr. Hays had not discovered any albumen in the urine of his fatal cases. In Dr. Hebert's fatal case the urine was highly albuminous and suppression occurred 16 hours before death. The depending portions of the body of this young man presented a mottled

appearance, two hours after death, the natural color was light yellow. I did not discover any decided yellowness of the conjunctiva in any case. Yellowness of the skin I could hardly have distinguished on account of the complexion of the patients. I found albumen in three cases. Other cases in which no albumen was found were too far advanced in convalescence or too early in the disease to make the absence of albumen a point of diagnostic importance. In one case, in which the most abundant deposit of albumen occurred, a boy of 12, the boy was dressed and sitting up. He had slight fever, glistening eyes, red spongy gums, and slight headache. Finally, as to the diagnosis, I believe these cases to correspond with what is known in the Antilles and tropical America as *fièvre inflammatoire*, *fièvre d'acclimation*, *fièvre jaune bénigne*, *fièvre jaune abortive*, *fièvre jaune des créoles*, *dengue*, etc. Bérenger-Feraud says of these fevers: "These fevers may exist sporadically, like the yellow fever, and also epidemically, but it is, above all, at the approach or decline of the epidemics of yellow fever that they are observed in the greatest number. They present different forms, the most frequent form is observed among people who are subject to be attacked by yellow fever. It offers all the symptomatic appearances of the first degree of yellow fever—coloration of the skin and eyes, elevation of temperature and pulse, cephalalgia, rachalgia, contusive pains in the limbs; but whatever may be the intensity of these symptoms they all disappear at the end of 24 or 48 hours, and recovery takes place." In 1875 Bérenger-Feraud lost but 3 cases in 400, and in 1876, 1 case in 210. Such is the resemblance of this form of fever with the first degree of yellow fever, that when it is observed sporadically without an epidemic of yellow fever, the doctors of the country say, "If we were in the time of yellow fever, we would say that it is yellow fever." Bérenger-Feraud claims that this fever prevails everywhere that yellow fever reigns, and says, "It is a disease very near, if not identical with yellow fever—an incomplete yellow fever."

For me the fever is identical with yellow fever, and only differs in degree from the more severe forms which, because of the fatality which attends them, are known and dreaded by all. It seems to me extremely unscientific to make our diagnosis depend upon a greater or less percentage of mortality, and the sooner physicians in the yellow fever zone, admit, what I believe to be true, that yellow fever is not always a malignant disease, and that the immunity of créoles is due to their having suffered (generally in childhood) from this milder form of the disease which has received so many different names, and that it is not a birth right, the better will it be for the progress of medical science and the true interests of commerce where these diseases prevail.

THE RICE FEVER.

*Reports of DOCTORS BRUNS and DAVIDSON on the Fever which Prevailed in
Plaquemines Parish.*

No. 142 CANAL STREET }
New Orleans, September 18, 1880. }

S. M. BEMISS, M.D., Resident Member National Board of Health:

Dear Sir—In obedience to your request of the fourteenth of September, that I should "proceed to the lower coast of the Mississippi River to inspect and report in regard to the prevalence of any infectious or other forms of fever prevailing in that section of the State," I have the honor to report that, on the morning of the fifteenth, at 8 A. M., the committee, consisting of Dr. J. P. Davidson, of the State Board of Health; Dr. G. M. Sternberg, surgeon United States Army, and myself, with Dr. Mitchel, of the National Board, who kindly accompanied us, and my son, Mr. H. D. Bruns, who volunteered to make the necessary autopsies, if opportunity offered, proceeded on the steam tug *Aspinwall*, directly to Myrtle Grove, the plantation of Dr. J. B. Wilkinson, the oldest and most experienced physician in the parish of Plaquemines. We there learned that the doctor had been called to visit a case of fever on the left bank of the river, seven miles below, in consultation with the resident physician, Dr. N. M. Hebert. We reached the place designated, five miles above *Pointe-a-la-Hache*, too late to meet Dr. Wilkinson, but had the good fortune to encounter Dr. Hebert, who, with great courtesy, at once invited us to see his patient, a typical case, as he regarded it, of the prevailing fever. The following was his account of the case:

Paul Gravolet, white male, aged 22 years, had sat up for two nights with *Adrian Dragon*, sick of the fever and had afterwards attended his funeral. It was the body of this *A. Dragon* which Dr. Sternberg had seen on his previous visit to the parish and noticed in his report. A short while after, on the afternoon of the tenth, Gravolet was taken with a chill, followed by violent headache, pain in the loins and legs, nausea, retching and fever. Dr. Hebert visited him for the first time on the twelfth instant, at 8 a. m., and found him suffering from fever, with a hot, dry skin—temperature not noted. The vomiting of bile and mucus continued; the eyes were congested; the tongue moist, streaked in centre, red at tip and edges, was covered with a white fur; the fur had disappeared on the fourth day, leaving the whole organ red; the gums were red and swollen, but firm; there was much restlessness throughout the attack; the respiration was tranquil, without sighing; he complained of slight pain on pressure over epigastrium; the urine had been abundant, and free from albumen; there had been no delirium. Comp. cath. pills, followed on Monday by calc. magnes. had acted freely, and quinine, in 4 gr. doses, until 52 grains were taken—in 48 hours—had been ordered, after the action of the magnesia. The doctor could

not say that he had noticed any decided remission at the period of his visits, morning and evening, but had sometimes found him perspiring. He had broken his thermometer and could not tell what the diurnal variations of temperature may have been.

At the time of our visit, 1:30 P. M. September 15, the pulse was 8 to the minute, temperature 101 1-5 deg. F., respiration normal, tongue clean, gums pink and firm, skin pleasantly warm and soft, presenting no harshness nor pungency to the touch; the face was flushed, without capillary congestion; the body was of the natural color, and neither it nor the eyes showed the least tinge of yellowness; the *facies* was perfectly calm and the patient cheerful. He complained of some pain on pressure over stomach and abdomen. At 11 A. M. he had passed a small quantity of bright, florid blood by stool. The urine was abundant. A fresh specimen, tested on the spot, yielded, on the addition of nitric acid, a light precipitate, which cleared up perfectly on boiling. At our second visit, a little after noon the following day, we found him still convalescing. He had passed a little bright blood by stool during the night, but had slept well. The pulse was 60 to the minute, temperature 99 3-5 deg. F. No albumen in urine.

In the same neighborhood we saw, with Dr. Hebert, Pierre Dragon, white, male, aged 5 years, the younger brother of the above mentioned Adrian. Three days before our visit, he had recovered from an attack of fever; but, two days after convalescence, had partaken freely of sardines and chicken for breakfast, and at noon was seized with violent vomiting and purging. There had been no hemorrhage from bowels. The child was calm and cheerful; the skin soft and moist; the temperature carefully taken in axilla was 100 deg. F. The pulse of the little patient, much excited by our presence, was, by first count, 110 to the minute. At the close of our somewhat protracted visit, it had fallen to 92. There had been six cases of fever in this family. All had recovered but Adrian. A small specimen of the patient's urine, very dirty, full of hairs and mucus, was secured. It threw down a flaky deposit on the addition of nitric acid, not cleared by boiling. As a substitute for filtering paper a single thickness of newspaper was tried. I thought it a clear case of failure; but, if trustworthy, the urine contained a trace of albumen. At our visit in the afternoon of the following day, the patient was convalescent, though still somewhat feverish.

Another patient of Dr. Hebert's visited by us in this neighborhood was Eliza Martin, white, female, aged fourteen years. She had come from New Orleans on the afternoon of the tenth, and was taken with fever three days after. She had been treated with calomel and quinine. On the second day of her fever (Tuesday) Dr. Hebert reports a well marked remission in the morning. When seen by us on Wednesday at 3 P. M. her

pulse was 120 to the minute, temperature 103.25 deg. F., the tongue soft, moist, marked by the teeth, covered with light white fur; the gums pale, pink, firm; *facies* calm; skin pleasant to touch and bedewed with slight perspiration. There was a tendency to diarrhœa and slight pain was complained of on pressure over abdomen. Urine, tested on the spot with nitric acid and heat, was free from albumen.

On the opposite side of the river, at the Franklin Rice Mill, we also visited, with Dr. Hebert, a patient of Dr. Hays', Michael Halceran, a native of Louisiana, white, male, married, aged 33 years. He had been taken on the twelfth, at 10 A. M., with chill, violent headache and pain in back and legs, accompanied by gastric distress and vomiting. The last continued throughout his attack; but we learned from his friends, and from his physician later, that this gastric irritability characterized him even in health. He is a confirmed dyspeptic, vomits his food frequently and is unable to retain a dose of medicine, unless it be disguised, and concealed even from his suspicion. Dr. Hays informed us the next day that when he first saw Halceran, at 12 M. on Sunday—two hours after his seizure—the temperature was 103 deg. F. Of his temperature Monday he had no record and did not recall it, but on Tuesday he found it to be 101 $\frac{3}{4}$ deg. F. at his morning visit, and 102 $\frac{1}{4}$ deg. F. in the afternoon. He was said to have had yellow fever during the epidemic of 1867.

At the time of our visit, we found him perfectly free of fever. He conversed cheerfully and readily, and his whole appearance was indicative of rapid and firm convalescence. The temperature was 100 deg. Fahrenheit, pulse 62 to the minute, full, soft, slow; tongue clean and moist; no yellowness of conjunctivæ or skin. Auscultation of heart revealed a soft, aortic, systolic murmur. Further inquiry, afterwards confirmed by Dr. Hays, revealed the fact that the patient had suffered from more than one attack of acute rheumatic fever. The urine showed a small quantity of albumen, probably persistent.

In an adjacent room I saw Mrs. Halceran, wife of above, well advanced in convalescence from a similar attack of fever, lasting only forty-eight hours. She complained of feeling a little weak; but had a good appetite, which she had been indulging for some days freely and without harm. Though we touched at this point the following day, we did not think it worth while to visit these patients again.

Moving down the right bank of the river we stopped at Dr. Geo. H. Hays' residence, Point Michel, and were immediately joined by the Doctor, who came on board the tug, and took us to visit some of the more interesting cases of his own, then under treatment. The great majority of the patients he has had were well or convalescent.

Wm. Gilmore, white, male, aged nine years, was taken at midnight Sunday with the usual light chill and pains in back

and legs. Dr. Hays, at the date of his first visit, about noon on Monday, found him with high fever, hot, dry skin, frequent, quick pulse, white, furred tongue, and free from nausea, or pain at epigastrium; the respiration was slightly hurried, without sighing, and there was no jactitation. His temperature was 105 deg. F. The following forenoon it was 105 deg. F.; in the afternoon 104½ deg. F. On Wednesday morning it was 104½ deg. F. At the time of our visit, 5:20 P. M., it was 103 deg. F. Although an unusually nervous child, and ministered to by a still more nervous mother, who hastened to inform him that the visit of so many doctors did not necessarily portend immediate dissolution, his expression was placid, exhibiting neither alarm nor depression. The conjunctivæ were pinkish; but there was no intolerance of light, nor pain on pressure over the eyeballs. The face was slightly flushed, without capillary congestion. The color of the body was natural, and there was no yellowness of skin or eyes. To the touch the surface was dry and warm, without harshness or pungency. The pulse was 100 deg. F., to the minute; respiration normal, no suspiria. The bowels had been freely moved, the dejections were natural, the urine copious. There was slight uneasiness manifested on pressure over epigastrium and abdomen; but he made no complaint, except of slight headache.

The following day we visited him again at 10 a. m. He had slept well; had two rather thin stools during night, the last at 4 a. m.; with both had passed urine freely. The pulse was 92 deg.; temperature 101 3-5 deg. Fahrenheit. *Facies* cheerful, skin pleasant. From the excessive nervousness of the little patient, we could not secure a specimen of urine for examination at either visit.

In this locality we also visited with Dr. Hays, Millaudon Potoon, black, male, aged fourteen years, who was said to have had a relapse, succeeding a fever of four days' duration. We saw him again the following morning. At neither visit did he have any fever. The skin was rather cool, temperature normal, pulse soft and very compressible, but not frequent. The appetite was feeble, strength much exhausted, mind spiritless and dejected. He answered questions willingly, but slowly and without animation. The decubitus was lateral, with the legs, semi-flexed, and we found him lying in exactly the same position, with the same air of utter indifference, on our second visit as we had left him on our first. He made no complaint, and on repeated inquiry, admitted no special discomfort. His mother told us that he had been at work in the fields up to the date of his first attack; but the very great emaciation he exhibited was certainly not attributable to the brief acute attack he had experienced. He looked to me to be like a well advanced case of tuberculosis, and on inquiry I learned from Dr. Hays that his father had died of phthisis pulmonalis. Dr. Hays had

never examined his chest, and his condition and surroundings were such as not to invite my personal auscultation of him. A specimen of his urine exhibited, on the usual tests, an abundance of albumen.

In the same room lay a younger brother of Millaudon, convalescent from a mild attack of the fever.

At the Quarantine Station, which we reached at 9 P. M., we found to our regret the assistant quarantine physician, Dr. C. P. Wilkinson, down with the fever. He had been taken with the usual symptoms of chill, headache, pain in the back and legs, at 6 A. M. on Sunday, the twelfth, and when visited by us on Wednesday at 10 P. M. was, therefore, within 8 hours of completing his fourth day. The quarantine physician, Dr. Finney, had kept an accurate record of his temperature—the sole instance in which we had the fortune to obtain it—from which it appeared that, on seizure, his temperature was $100\frac{1}{2}^{\circ}$ F. At noon the same day it was 103 and the same in the evening.

Temp. F., deg.

Monday morning.....	101
Monday afternoon.....	104
Tuesday morning.....	101
Tuesday afternoon.....	104
Wednesday morning.....	101
Wednesday afternoon.....	104
And at 10 P. M., as taken by myself.....	103

He had, when we saw him, a hot skin; broad, moist tongue, covered with white fur; pulse 90° , full, soft, regular; no precordial nor abdominal distress, nor vomiting, throughout the attack. He had taken quinine in ten-grain doses three times on day of attack, but owing to the irritation it excited, had at first moderated and then discontinued its use. Wednesday he had taken two three-grain doses. He talked to us with unusual animation and energy that night, and the following morning when we visited him, a little after daybreak, we found him perfectly free from fever, in high spirits, and only anxious to resume as soon as possible the duties which he has performed with so much zeal, fidelity and intelligence.

Dr. Wilkinson is a native of Louisiana, aged thirty years. He stated that he had had an attack of yellow fever, in common with other members of his family, in 1855.

At an early hour the following morning, September 16, we crossed the river to Buras's Postoffice, which lies immediately oppsite the Quarantine Station. There we had the pleasure of meeting with Dr. Westerfield, whose practice extends for many miles above and below that point. The sum of the information gathered from him was to the effect that the fever had prevailed very extensively in that neighborhood—principally above—which he attributed to the batture, there being a caving bank, washed by the river, below. The fever had made its first

appearance early in August, and about ten days thereafter had spread through the entire settlement, as many as five, six and seven cases occurring in single families, and in some of these death by yellow fever had happened in 1878. The majority of his cases had been among white children. Negroes enjoyed, seemingly, more immunity, and females still greater. The average duration of the fever was about 48 hours, he thought. It yielded readily to quinine; fevers chiefly of the remittent type, though he had seen a few intermittents. There had been no death in his practice, nor had he seen a single case in which there was jaundice, black vomit, or suppression of urine.

Dr. Jones, whose area of observation and practice lies on the same bank of the river, between that of Dr. Westerfield and that of Dr. Hays, and with whom we passed some time, later in the day, had treated about thirteen cases in all. There was, he thought, a well-marked remission in every case he had seen, but he had made no thermometric observations. The exacerbation took place toward night. The fever yielded readily to quinine, which he gave freely. The only difficulties he had experienced in the management of his cases arose from the tendency to undue cerebral excitement in children. He had lost none, nor had he seen any case with jaundice, black vomit or suppression of urine.

Dr. Ryan told Dr. Davidson that, at Pilot Town, the same fever had prevailed extensively. He regarded it as a malarial fever, remittent in type. It yielded readily to quinine. He had no death in his practice, nor had any of his cases been attended with yellowness of skin or eyes, or black vomit, or suppression of urine.

Visiting, with Doctors Hays, Hebert and Jones, who joined us, such cases of special interest as we had seen the previous day, we reached Myrtle Grove about 2 a. m., and after an interesting conversation with Dr. J. B. Wilkinson—who, with two of his sons, paid us a visit on the tug—steamed directly for the city, which we reached at 6 p. m. on Thursday evening.

Through your own forethought and Dr. Mitchell's attentions, we enjoyed every comfort possible on such a trip, and I take this opportunity, on the part of the whole commission, to express their deep sense of the courtesy they received from all the medical practitioners of the coast, who, with equal candor and cordiality at great self-sacrifice, devoted a large part of two days to showing us every case of interest in their practice, and to giving us all the information that could possibly throw any light on the object of our mission.

From personal observation, and from the information gathered on the spot, I have no hesitation in expressing, with the utmost confidence, the conviction that the disease now and lately prevailing on the lower coast is an endemic malarial fever, of remittent type, and for the most part of a mild char-

acter. Its unusual prevalence is due partly, to the meteorological conditions of the past summer, and partly, I believe, to the widely increased cultivation of rice. The alarm it temporarily excited was owing to its fatal results in a single family, at the outset. Beyond this isolated instance it has been attended with the slightest mortality, and but for that it would have scarcely excited comment except as to its prevalence and diffusion. The diagnosis obviously lies between malarial and yellow fever, and the reasons for assigning it to the former class seem to me patent and indisputable.

In the first place, all the practitioners in the infected district agree in the opinion, unqualifiedly expressed, that the disease is remittent fever, such as they are accustomed to treat every summer. The laity seem generally to share their views, giving the fever the trivial names, indifferently, of *la fièvre du pays* or *la fièvre paludienne*. Its ready amenability to quinine is, in itself, a strong proof of its miasmatic nature. If accurate records had been kept they would have been of prime assistance in arriving at certain conclusions; but, owing to loss or breakage of instruments, Dr. Hays was the only physician we met possessed of a thermometer, and the infrequency of his visits, from the great number of patients and the distances to be traveled, lessened the value of his observations as a clinical aid to diagnosis. Nor was it possible, from the most painstaking inquiry, to extract any supplemental information from the attendants or families of the sick. For the most part untrained, ignorant, careless, incapable, alike of observing or describing the most familiar phenomena, the utmost that could be hoped from them as nurses would be to give a dose of medicine at prescribed hours. Under these circumstances the general impression of the medical attendant as to the continued or interrupted course of the fever is the only evidence that can be had, and this, as I have stated, was uniformly to the effect that, in all the cases, diurnal remissions occurred, usually in the morning, judging from lowered pulses, diminished heat of skin, moisture, etc.

In theory and in the text books a remission is a well-defined, notable abatement, at calculable intervals, of all the more prominent symptoms of the fever, lasting for many hours. But at the bedside, especially in our graver forms of autumnal fevers, a remission is too frequently an obscure, imperfect and ill-defined pause, as it were, between two prolonged exacerbations, filling up almost twice the entire round of twenty-four hours. The temporarily lowered pulse swiftly resumes its force and frequency; the moisture, slight and transient, extending only over the forehead, face and neck, quickly dries up; and the accurate and continued observation which marks the brief return of the same phenomena at the same hour of the succeeding day can alone truly interpret their quality and meaning.

With their imperfect opportunities and means of detecting such remissions it is scarcely to be wondered at that the physicians had no charts to exhibit. But Dr. Wilkinson was suffering when we saw him from the same type of fever that we had been seeing all day, and in his case the record kept by Dr. Finney supplies the missing link. It shows an access of fever, lasting all Sunday, with a well-marked remission in the morning and exacerbation in the evening of the following day, and the exact repetition of this rise and fall of temperature on two successive days thereafter, terminating at the end of the fourth day in a complete apyrexia.

Had a similar record been kept in all the cases, I do not doubt that it would have equally exhibited their remitting character, though, doubtless, in many of them the remissions may not have been so strongly marked.

So much concerning the type. Of the nature of the fever, without multiplying details, I will simply say that neither in its special features nor in their entirety, could I realize a single prominent characteristic of yellow fever.

The broad, white, lightly furred tongue, moist in all stages, lacking the dry, brown centre, or fiery tip and edges; the firm gums, free from sordes or oozing; the clear or only lightly suffused eye, not smoky or brilliant or dull, with no tinge of yellowness; the warm, pleasant skin, neither bathed in hot sweat, nor harsh, nor pungent to the touch, nor bronzed, nor jaundiced, nor exhibiting capillary congestion; the universal freedom from jactitation and delirium; the normal respiration, neither hurried nor labored, nor sighing; the *facies*, free alike from terror or depression, calm, cheerful, smiling; the notable absence of any stage of calm intervening between a primary and secondary fever, or of black vomit, or tarry dejections, or suppression of urine, or sudden cardiac syncope, render it as certain as clinical observation can that the fever is not yellow fever.

And if we except the Giordano family, the extremely light mortality is no unimportant factor in the conclusion. Dr. Hays attributes the death of these four children of one household to their intractableness and refusal to take medicine. Now, in the graver forms of malarial fever, the early and free administration of quinine often offers the sole means of saving life; but I cannot help thinking that, in this instance, there coexisted some peculiarly malign local influence not made out, or special family predisposition not understood—a fact we are called on frequently to deplore. For of at least 150 cases that we can reckon, and doubtless a large number of others among the negroes, who neither sought nor obtained medical assistance, scattered along both banks of the river, under bad hygienic conditions, crowded in close, dark, damp, ill-ventilated rooms, seen usually late, and necessarily infrequently, with no nursing or worse, lifted out of bed or seated up for every

occasion, in every stage of the disease, and fed or starved as fortune favored—improperly or unseasonable often, and as the waking or the whim of the nurse chanced; out of this large number of cases, as we have said, but two deaths have occurred. Yellow fever, wherever it prevails—so far as I know—stands high among the most fatal diseases of our nosological table.

Nor is there any hint of such a march of the disease from house to house, or by personal contact, as can almost always be traced in contagious diseases breaking out among a sparse population, and never so easily traced as under such conditions as exist here, where the dwelling-houses are stretched along in one continuous and unbroken line, following the curves of the levee under which they lie.

What are the facts? Dr. Westerfield told us that his first cases occurred early in August, and by the tenth, after a pause of a few days, the whole settlement was involved. Dr. Hays gives a somewhat similar history of his section; but his first case did not occur until the fifteenth of August. Now the middle of Dr. Westerfield's line is directly opposite the Quarantine Station. Dr. Hays' practice lies many miles above. And at first sight this might seem to furnish a clue to the source of the disease, if it were yellow fever—although we know of but one infected ship, the *Excelsior*, at quarantine this summer, though of course many ships from infected ports have been detained there from time to time. The solution of the phenomenon, granting the disease to be malarial, is not far to seek. Owing to the shorter distance to the Gulf and the natural configuration of the land, drainage in the lower is much more rapid than that in the upper part of this area. Mr. F. C. Brooks, a planter of the neighborhood, informs me that, although the rice matures in both sections about the same time, the difference in time of drainage—the water being let off the fields simultaneously—is from seven to ten days, nearly. As the water is let off usually about the middle of July, the fever, as might have been anticipated, made its appearance along the river from below upwards just so soon as the hot suns of July and August could draw up from the reeking ground the miasm which, whatever its specific nature, is doubtless telluric in its origin.

Finally, the epidemic now prevailing in the Parish of Plaquemines is, unhappily, not confined to the lower coast. Along both banks of the river as far up as Donaldsonville, in Jefferson, in St. John Baptist, St. Charles, St. James and Ascension. I am informed by my friends—physicians and planters—that the same or a similar fever exists. Since the latter part of June I have treated in New Orleans a fever identical with that which I found in Plaquemines, invariably remittent, and many of the cases far more serious than any which I saw below. A few days only before I started on this mission I had treated for a severe remittent the clerk of the Alvin, a packet in

this lower coast trade. He was seized with the fever on the coast and brought to the city with it.

And this widespread outbreak of malaria, during the present summer, is generally attributed by the residents along the river, above and below, to the increased acreage under cultivation in rice. In a letter from Dr. E. Duffel, of Ascension, dated September 13, and received on my return—that most competent observer says: "I am very busy, having a great many cases of malarial fevers, at times very fatal, particularly if neglected at first. One of the worst complications is congestion of the brain, and few if any, recover when thus affected. The extensive cultivation of rice in Louisiana will be very detrimental to the health of the people and a scourge."

A planter on the lower coast tells me that eight or nine years ago malarial fevers were comparatively infrequent and mild in that section, but have increased in numbers and severity just in proportion to the increase of the rice area. I do not doubt the truth of the statement, which is in strict accordance with all we know of the history of rice culture and its connection with miasmatic fevers elsewhere, notably in South Carolina and Georgia. In Louisiana two potent causes will contribute to the increased cultivation of this cereal. The poor man will give a natural preference to a crop which can be raised with small expenditure of labor and which needs no capital to take it off; and the wealthier sugar planter finds in it a valuable accessory to his main crop—harvested early, commanding cash readily, and furnishing, at the very season he most needs it, the large outlay required to convert his standing cane into a marketable commodity.

Whether the health of New Orleans will thus be endangered only time can show; but that our hitherto salubrious lowlands, if turned into paddy fields, will become hot beds of malaria, hostile to the health and perhaps fatal to the presence of the white race, there is little reason to doubt.

I have the honor to be, very respectfully, your obedient servant.

J. DICKSON BRUNS, M. D.,
Chairman Committee on Fever of Lower Coast.

I concur with the above full and able report in regarding the disease prevailing on the lower Mississippi coast as essentially a miasmatic fever of a remittent type, occasioned by the emanations from the rice fields stretched along the coast, and its diffusion over so extended an area as probably due to the peculiarities of the present season, characterized as it has been by long-continued rains, followed, at harvest time of the rice, by very hot and dry weather. I saw no case of the fever which, in my judgment, could be said to present the diagnostic signs of yellow fever.

J. P. DAVIDSON, M. D.

MINORITY REPORT.

I regret to say that I can find no good reason for changing the opinion given after my first visit to Point Michel as to the nature of the fever prevailing in that vicinity.

I have not seen during either visit any case which *alone*, would enable me to make a positive diagnosis of yellow fever, but from a consideration of all the cases seen by me during my two visits, and of the facts relating to the origin and progress of the epidemic, I can not doubt that this fever is the mild type of yellow fever which has been described under various synonyms given in my previous report, and which Blair, more properly, calls "yellow fever *simplex*," to distinguish it from the more malignant type called by him "*gravior*."

The main facts upon which I base this opinion are the following: The first cases, so far as I can learn, occurred in the practice of Dr. Westerfield, directly opposite the quarantine station, about the 1st of August. It will be remembered that the infected bark *Excelsior* was anchored at this point for eleven days, from June 24th to July 5th, and again from July 12th to August 16th. No cases occurred in Dr. Westerfield's practice for four or five days after the first case, when six cases occurred in one family, one and a half miles below; then seven cases in another family, about the middle of August. It was about this time (August 15th) that Dr. Hays saw his first case, 7 miles down the river from his house. This locality subsequently furnished a considerable number of cases, at least 15. Later, (Aug. 24th) an infected locality was developed $1\frac{1}{2}$ miles above Dr. Hay's house. Up to this time no deaths had occurred, but in this locality four children died in one family, and a young man in the immediate neighborhood. Still later, September 4th, the fatal case of Andrew Dragon, and other mild cases in the same family occurred in the practice of Dr. Hebert on the east bank of the river and several miles further up stream.

In the practice of Dr. Wilkinson on the west bank of the river and just above Dr. Hays, no cases of the same fever have occurred.

Dr. Westerfield says that his cases occurred mostly where there is a batture on the river front, where there was no batture he has had no cases. He says the disease has taken the same course as in 1878. He does not recollect that one of the cases of this year had fever in 1878. The majority have been children. Has had some severe cases with great irritability of stomach, but no deaths. Did not examine the urine or make temperature observations.

The theory that this fever results from malarial emanations from the rice fields seems to me untenable from the history of the epidemic as above given; from the fact that adults are most exposed to these emanations, while children are most subject to this fever, and that in various localities where rice is cultivated, as in Dr. Wilkinson's practice, this fever has

not prevailed. I am informed that a similar fever does prevail at Port Eads, where there are no rice fields. There is however, in this vicinity a pilot's village and a custom house station, so that it is presumable that communication with infected vessels occurs before the vessels are subjected to disinfection, etc. I am also informed that communication between this point and the City of New Orleans is unrestricted. At the quarantine station I find a little settlement, two or three houses, within a few hundred yards of the wharf, over which the quarantine physician has no control. The facilities for intercourse with infected vessels are certainly not insurmountable, and I find, moreover, that river packets which touch all along the banks of the river on their way up and down from New Orleans, are in the habit of tying up for the night at the quarantine wharf.

There is, therefore, no difficulty in accounting for the introduction and dissemination of a disease such as I suppose this to be, and from my point of view, the batures along the river banks furnish favorable local conditions for the increase of the specific poison of the disease, if by any means it is introduced during the summer months.

As to the clinical history, I have no reason to believe that all the cases of fever on the river banks have been of the same nature. Drs. Wilkinson, Hebert and Hays all state that cases of intermittent fever constantly occur in their practice, and doubtless autumnal remittents prevail to some extent. Temperature observations have only been made in a few cases, but the history given me by Dr. Hays and Dr. Hebert, of the cases which I have seen, is of a continued fever of a single paroxysm, lasting from twenty-four hours to four or five days.

I have obtained an incomplete record of temperature in two cases only.

Romney Gilmore, aged 10, was taken sick at *midnight* Sunday night (Sept. 12th.) No chill, temperature 106° ; Monday morning 105° , evening $104\frac{1}{2}^{\circ}$; Tuesday morning 104° ; Wednesday, 3 P. M., 103 ; Thursday morning $101\frac{3}{4}^{\circ}$. I was unable to obtain a specimen of urine for examination in this case.

Michael Halcerau, aged 33 says he had yellow fever in 1857; taken sick at 10 A. M., Sunday (Sept. 12th), temperature Sunday noon 103° ; Monday morning $101\frac{3}{4}$, evening $103\frac{1}{4}$; Wednesday morning 101° . Has albuminous urine, highly acid and containing granular tube casts.

In one case in the practice of Dr. Jones, a relapse occurred from exposure before complete convalescence was established. We found this patient, a boy of 12, very much prostrated, and having highly albuminous urine of acid reaction, containing granular tube casts.

This is the fifth case in which I have found albumen in the urine, and that in a fever which is chiefly characterized by the mildness of its course and the absence of distressing symp-

toms. A very different fever, in my view, from the high grade of malarial fever, with a tendency to local congestions and hemorrhages, which occasionally presents the phenomenon of albuminous urine. In one case, in the stage of calm, the patient had a pulse of 60 beats in the minute. I should say from my observations that this fever is characterized by rather a slow (after the 1st day) and soft pulse, a perspiring skin, a clear intellect, and an irritable stomach. I did not observe yellowness of the skin or conjunctiva in any case, but do not look upon this symptom as a common characteristic of the milder form of yellow fever. My experience in regard to this point corresponds with that of Blair, who says :

“It certainly must be admitted that a large proportion of the cases of yellow fever are unattended by yellowness of the surface or even of the eye, for the disease may be cut short by treatment (?) or the epidemic may be of the simplex grade, or the “mitior,” and the yellow suffusion may be so slight as to escape notice. The total number of cases has been about 100 exclusive of those occurring in the practice of Dr. Westerfield, whose figures I did not obtain.

The temperature chart in the case of Dr. Wilkinson, as given by Dr. Finney, certainly justifies a diagnosis of remittent fever, but as already stated the history given me by Dr. Hays and Dr. Hebert, of their cases both upon my first and second visit was of a continued fever.

Dr. Wilkinson, Sr., the most experienced practitioner in the vicinity who has been called to see many of the severe cases in consultation made an unqualified diagnosis of yellow fever. He is perfectly familiar with the malarial fevers of the country and has seen much of yellow fever, has had cases of malarial fever in his practice this fall, but considers the severe cases of continued fever which he has seen in the practice of Drs. Hebert and Hays as undoubted cases of yellow fever. Dr. Hebert evidently is much inclined to agree with Dr. Wilkinson. Dr. Hays insist that the disease is a malarial fever of the same type as he saw in 1878, which some practitioners in the vicinity called at the time yellow fever, but which he has never admitted to have been yellow fever.

Respectfully Submitted,

GEO. M. STERNBERG,

SURG. U. S. A.

NEW YORK, 41, West 20th street, }
 July 31st, 1880. }

Editor Medical and Surgical Journal, New Orleans, La.:

DEAR SIR—Having been selected by the Paris Committee (Messrs. Ranvier and Dumontpallier) having charge of the subscription for a monument or memorial to the late Prof. Claude

Bernard, to represent them in the United States,—I beg leave to be allowed to use your columns for the purpose of appealing to the members of the medical profession and all others interested, to subscribe to this worthy project.

I need hardly remind your readers of the great debt which every practicing physician owes to the labors of the illustrious physiologist whose memory we are asked to honor in this way.

All inquiries and subscriptions, in the shape of bank checks or postal money orders should be addressed to me.

Trusting that I shall have the advantage of your active personal support in the matter, I remain,

Yours, very respectfully,

E. C. SEGUIN, M. D.

In Memoriam.

Died on Wednesday, September 22, 1880, at his residence, No. 157 Camp street, DR. JOHN M. CULLEN, a native of Yazoo City, Miss., aged 33 years, and a resident of New Orleans for 15 years

Dr. Cullen graduated in the Medical Department of the University of Louisiana in 1869. He was valedictorian of his class. Selecting New Orleans, he entered the practice of his profession and achieved prominence. Soon after graduation he was appointed Assistant Demonstrator of Anatomy at his Alma Mater. Courteous, manly and true, the profession can ill afford to lose such a member. To his wife and family we extend our heartfelt sympathies.

Died, at 9:30 A. M., August 17th, 1880, at his residence, 291 Huron street, Chicago, FRANK HOWARD DAVIS, M. D., aged 32 years, 2 months, and 12 days.

The sad announcement of the death of this estimable member of the medical profession is only increased when we turn to the venerable father, Prof. N. S. Davis, and conceive what must be the loss to him of such a son.

Graduating in 1871, after adding to his knowledge by months spent in the hospitals of Vienna, his brief professional career had been bright and full of hope. Taking an active part in promoting the scientific interests of the profession, his loss will be felt beyond the home circle.

